THE WORLD OF LAPP

Products of Asia Pacific 2023 | 24

LAPP

Guten Tag

Dear customers
and business partners,

It is my great pleasure to introduce you to the world of LAPP through the Asia Pacific Catalogue 2024!

Specially curated for our customers in Asia, this revamped catalogue brings together key insights about our portfolio and production facilities across the region. Discover how we have grown our footprint to bring LAPP's innovation even closer to you!

Keeping your industry alive – today and tomorrow: We are evolving from a supplier of products to a provider of holistic solutions. As we develop with key growth industries in Asia Pacific, we have included a section where we present LAPP's diverse offering through relevant application overviews. Have a look at where our connectors, cable glands, and other solutions are used in the realm of intralogistics, renewables, industrial communication, and more.

In light of all these developments our promise to you remains the same: "Global, reliable, customer-first." Whatever your application, we hope this handy guide will serve as a quick and easy reference.

Once again, thank you for your trusted support over the years, and stay in touch.

Yours sincerely,
Matthias Lapp

Legend

Industries


Automation


e-Mobility


Food & Beverage


Mechanical and Plant Engineering


Oil & Gas


Rail


Solar Energy


Wind Energy

Product characteristics


Suitable for outdoor use


Good chemical resistance


Flame-retardant

Wide clamping range


Halogen-free


Heat-resistant


Cold-resistant


Corrosion-resistant


Maximum vibration protection


Mechanical resistance


Assembly time


Low weight


Oil-resistant


Optimum strain relief


Space requirement


Power chain


Clean room


Robust


Acid-resistant


Reliability


Integrated SKINTOP® cable gland


Voltage


Connector with standard housing unit


Interference signals

Temperature-resistant


Torsion-resistant


Torsion load

UV-resistant


Waterproof


Variety of approval certifications

Please note:
The purpose of the icons is to provide you with a quick overview and a rough indication of the product features to which the corresponding information relates. You can find details of product characteristics in the “technical data” sections on the product pages.

Content

Matthias Lapp, Katharina Lapp

Family

We evolve to serve you

Family business and global player

LAPP is both. The history of our company has been one of success and expansion ever since it was founded in 1959 by Ursula Ida and Oskar Lapp. It remains resolutely family-owned to this day. We safeguard our success by staying close to our customers and markets, maintaining our innovative strength and brand quality, and being a reliable partner. As new opportunities arise for industry players, we remain committed to providing our customers with the best service in the evolving situation, to find quick, simple and flexible solutions wherever possible.

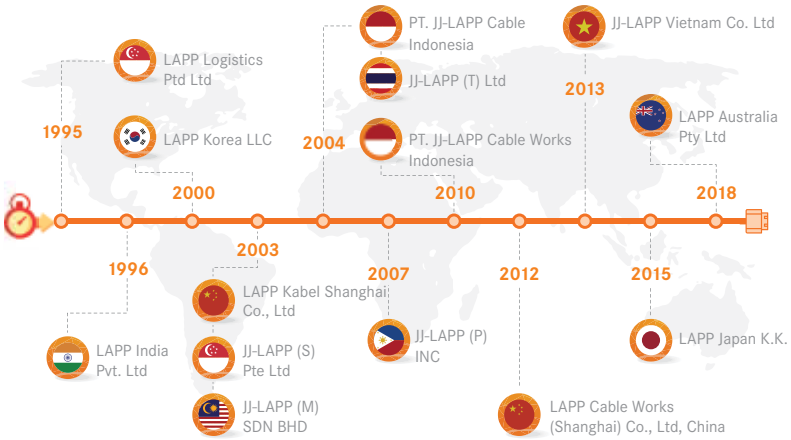
Success built on family values

At LAPP, we maintain values that promote cooperation and enable relationships with employees, suppliers and customers based on partnership and trust. Good relations and mutual respect are key elements of our company culture and a central pillar of company policy. We know that our successful business development of the last decades is down in particular to our 5,055 skilled and dedicated staff around the world, as well as the reliable partnership with our customers.

With 19 production facilities, over 41 sales companies and hundreds of dedicated consultants, we are always close to the individual needs and challenges of all over the world. We are constantly developing our products and system solutions, setting standards in safety, quality and functionality. This is why we are one of the world's leading manufacturers of integrated solutions and branded products in cable and connection technology. As our success story enters its third generation, we are aware of our duty to the future.

LAPP in Asia Pacific

Bringing LAPP innovations to you



Asia Pacific

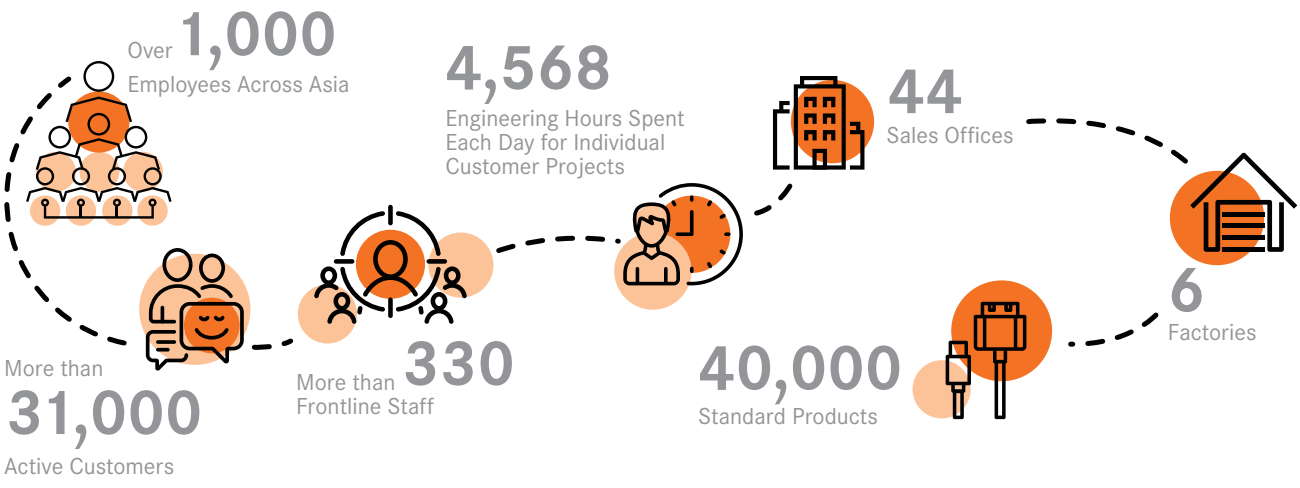
Singapore	LAPP Asia Pacific Pte Ltd (HQ)
	JJ-LAPP (S) Pte Ltd
Australia	LAPP Australia Pty Ltd
China	LAPP Kabel Shanghai Co., Ltd
	LAPP Cable Works (Shanghai) Co., Ltd, China
India	LAPP India Pvt. Ltd
Indonesia	PT. JJ-LAPP Cable Indonesia
	PT. JJ-LAPP Cable Works Indonesia
Japan	LAPP Japan K.K.
South Korea	LAPP Korea LLC
Malaysia	JJ-LAPP (M) SDN BHD
New Zealand	ECS New Zealand Ltd
Philippines	JJ-LAPP (P) INC
Taiwan	DKSH Taiwan Ltd
Thailand	JJ-LAPP (T) Ltd
Vietnam	JJ-LAPP Vietnam Co. Ltd

Driven by the innovative and enterprising spirit of its founder Oskar Lapp, LAPP has been active in the Asia Pacific region for over 25 years. Thanks to our customers' growing support and trust, we have extended our reach with locally-based factories, design teams and a close network of partners, to give you the same outstanding service anywhere.

Together, our R&D and production teams in Asia work seamlessly to meet specific customer requests and obtain local quality standards and approvals. As economies in the region grow closer, we are proud to compile in one book, all the products designed and manufactured in Asia to complement our portfolio of over 20,000 global products.

Partnering with LAPP gives you access to not just quality cables and connectors, but also quick delivery times worldwide and advanced system solutions. With over 1,000 employees across Asia – of whom 330 are directly supporting and servicing our customers – we are able to bring our technical expertise even closer to you.

Tap on our capabilities for unparalleled peace-of-mind!



Our Facilities in Asia

Tuas
SINGAPORE

Hwaseong
KOREA

Shanghai
CHINA

Bengaluru
INDIA

Bhopal
INDIA

Sydney
AUSTRALIA

Tangerang
INDONESIA

LAPP as a Company

We mean business

Count on LAPP experts and project teams to provide complete management of highly complex products, such as the optimal cable, service and connection solution.

We help our customers not only with a wide product range, but also precise execution of delivery and logistics, with detailed attention to every phase, guiding you from start to success. Our culture of family values means business as we know your specific applications and remain as your project contact person from day one through to completion.

- **Increased efficiency**
- **Local service**
- **Complete management**

Industrial Communication

We connect industry to the future

Ensuring future competitiveness, LAPP facilitates the transition to smart factories with innovative connection solutions and complete industrial infrastructure from a single source.

At LAPP, we focus on the customer and provide them with exactly the solution that will make them more competitive, offering advice that is independent of any specific protocol and technology. Not only do we actively shape the market, our customers also benefit from our know-how in both cable solutions as well as manufacturing expertise across industries. Tap on our local presence as our experienced teams are present on five continents – all with the usual high LAPP quality, with access to LAPP service and logistics centres.

- **Quality for your safety**
- **High-level expertise**
- **Tailored complete solutions**

Mobility

Rail is the future

LAPP supplies powerful connection technology with short lead times for the railway industry of tomorrow.

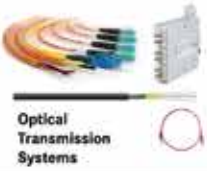
Compared to up to four months' delivery times for railway-specific products for our competitors, our worldwide subsidiaries and stocks mean goods can reach customers within a few days. LAPP meets standards of quality and safety with its TRAIN division, which specialises in solutions for the railway industry. We supply cables for almost all applications in railway vehicles of all kinds: from the coupling to the drive motor and the door automation to ventilation and toilets.

Our ÖLFLEX® TRAIN, ETHERLINE® TRAIN and UNITRONIC® TRAIN cables are exceptionally resistant to heat, oil, acid and UV radiation and also exhibit the highest possible mechanical robustness. The production site for the ÖLFLEX® TRAIN is certified in compliance with the International Railway Industry Standard (IRIS) and in terms of fire protection, for example, almost all LAPP products for the railway industry meet the highest hazard level Hazard Level 3 (HL3) in the international standard EN-45545-2.

- **Rapid availability**
- **Cable quality that meets the highest standards**

PRODUCTS FOR INDUSTRIAL APPLICATIONS AT A GLANCE

Structured Cabling · Installation Cables · Cabinet · Robot · Moving Chains · Drives · Festoon · Sensor/ Actuator · Heated Rollers · Control System · Electrical Maintenance

Product Family	Product	Industrial Communication Application Guide								
		Global Catalogue	Structured Cabling	Installation Cable	Cabinet	Robot	Moving Chain	Sensor/ Actuator	Control System	Festoon
 Data Communication Systems for Ethernet Technology-Industrial Switches, Gateways & NAT Firewall	ETHERLINE® ACCESS NF	●			●				●	
	ETHERLINE® ACCESS UF	●			●				●	
	ETHERLINE® ACCESS PNF	●			●				●	
	ETHERLINE® ACCESS M	●			●				●	
	ETHERLINE® ACCESS U	●			●				●	
	TOSIBOX®				●				●	
 Data Communication Systems for Ethernet Technology	ETHERLINE® LAN 500 CAT6A	●	●							
	UNITRONIC® LAN 250 CAT6		●		●				●	
	RJ45 CAT6 patch cords		●		●				●	
	ETHERLINE® LAN RJ45 Cat.6A	●	●		●				●	
	ETHERLINE® CAT.6A Flex patch cables	●			●				●	
	ETHERLINE® PN Cabinet Cat.6A	●			●				●	
	ETHERLINE® PN CAT.6A FD FC	●				●	●	●	●	
	ETHERLINE® SERVO DQ	●					●		●	
	ETHERLINE® ROBUST FR	●		●	●				●	
	ETHERLINE® FIRE	●		●	●				●	
	ETHERLINE® Cat.A FD	●			●	●	●	●	●	
	ETHERLINE® EC FD Cat.5e	●			●		●	●	●	
	ETHERLINE® FESTOON PN Cat.5e (PROFINET Cat.5e)	●								●
	EPIC® DATA RJ45	●	●		●	●		●	●	●
	EPIC® DATA M12X / EPIC® DATA M12D	●				●	●			
 Optical Transmission Systems	HITRONIC® TORSION	●				●				
	HITRONIC® PCF cables for PROFINET Application	●			●				●	
	HITRONIC® SBX	●			●				●	
	GOF DUPLEX Patchcord	●	●		●				●	
	GOF SIMPLEX Pigtail	●	●		●				●	
 Low-Frequency Data Transmission Cables	UNITRONIC® LiYY	●			●					
	UNITRONIC® LiYCY	●			●					
	UNITRONIC® LiYCY(TP)	●		●	●				●	
	UNITRONIC® ST UL2092			●	●				●	
	UNITRONIC® LiY(ST)Y			●	●				●	
	TELEPHONE CABLE	●		●						
	ALARM CABLE			●						
Bus System PROFIBUS-DP/FMS/FIP	UNITRONIC® BUS PB	●			●				●	
	UNITRONIC® BUS PB TORSION	●				●				
	UNITRONIC® BUS PB FESTOON	●								●
 Sensor/Actuator Cabling	UNITRONIC® SENSOR (M12 , M12-M12 , M12-M8)						●	●	●	
	UNITRONIC® SENSOR	●						●		
	UNITRONIC® ROBUST S/A FD	●					●	●		
	UNITRONIC® SENSOR (M12 , M12-M12) Power	●					●	●	●	
	Distribution Box (M8, M12)	●				●	●	●	●	
	EPIC® SENSOR	●					●	●	●	

PRODUCTS FOR THE RAILWAY INDUSTRY AT A GLANCE

1 Braking System
2 Driver's Desk
3 Traction Converter
4 Control Cabinets
5 Coupler
6 Train Control System
7 Traction Motor
8 Braking System
9 Blower
10 Battery
11 Auxiliary Power Converter
12 Passenger Information System
13 Lavatory
14 Lighting
15 Air Conditioning
16 Doors

ÖLFLEX® Power and control cables

ÖLFLEX® TRAIN GKW SC
1 2 4 6 8 11 12 13 14 16

ÖLFLEX® TRAIN GKW MC / GKW C MC
1 4 6 8 11 12 13 15

ÖLFLEX® TRAIN GKW IS MP
1 2 3 4 6 8 11 12 13 15 16

ÖLFLEX® TRAIN 3GKW SC
1 2 3 4 5 6 8 9 10 11 13 14 15 16

ÖLFLEX® TRAIN 3GKW MC / 3GKW C MC
1 3 4 5 8 9 11 13 15

ÖLFLEX® TRAIN 4GKW / 4GKW C
3 4 7 9 10 11 15

ÖLFLEX® TRAIN 9GKW / 9GKW C
7

UNITRONIC® Data communication systems

UNITRONIC® TRAIN
1 2 3 4 5 6 8 10 11 13 14 15 16

ETHERLINE® Data communication systems for ETHERNET technology

ETHERLINE® TRAIN
1 2 3 4 5 6 8 11 12 13 15 16

EPIC® Industrial connectors

1 2 3 4 5 6 8 9 10 11 12 15

SKINTOP® Cable glands

1 3 4 5 6 7 8 9 10 11 12 13 15

SILVYN® Cable protection & guiding systems

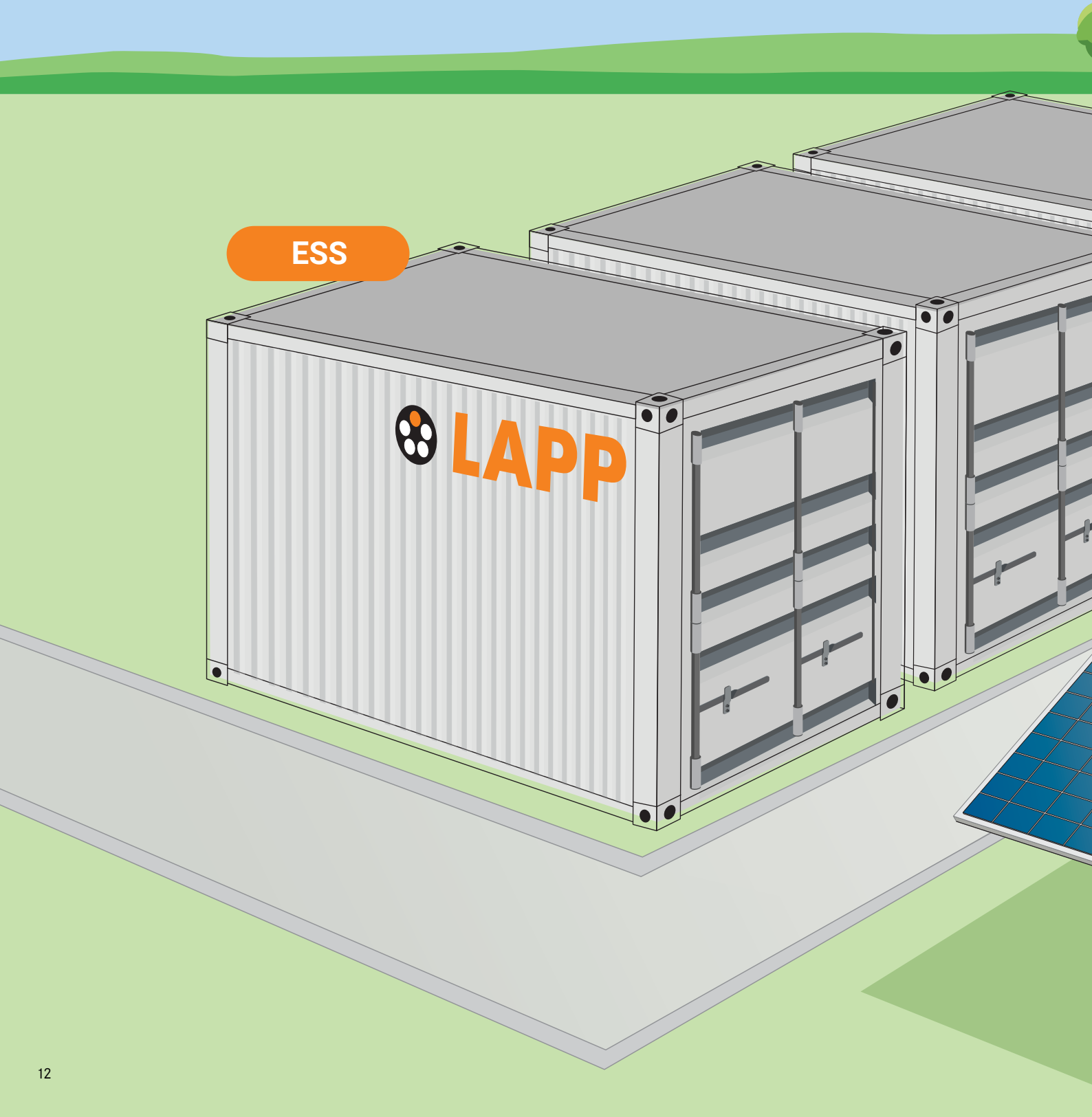
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

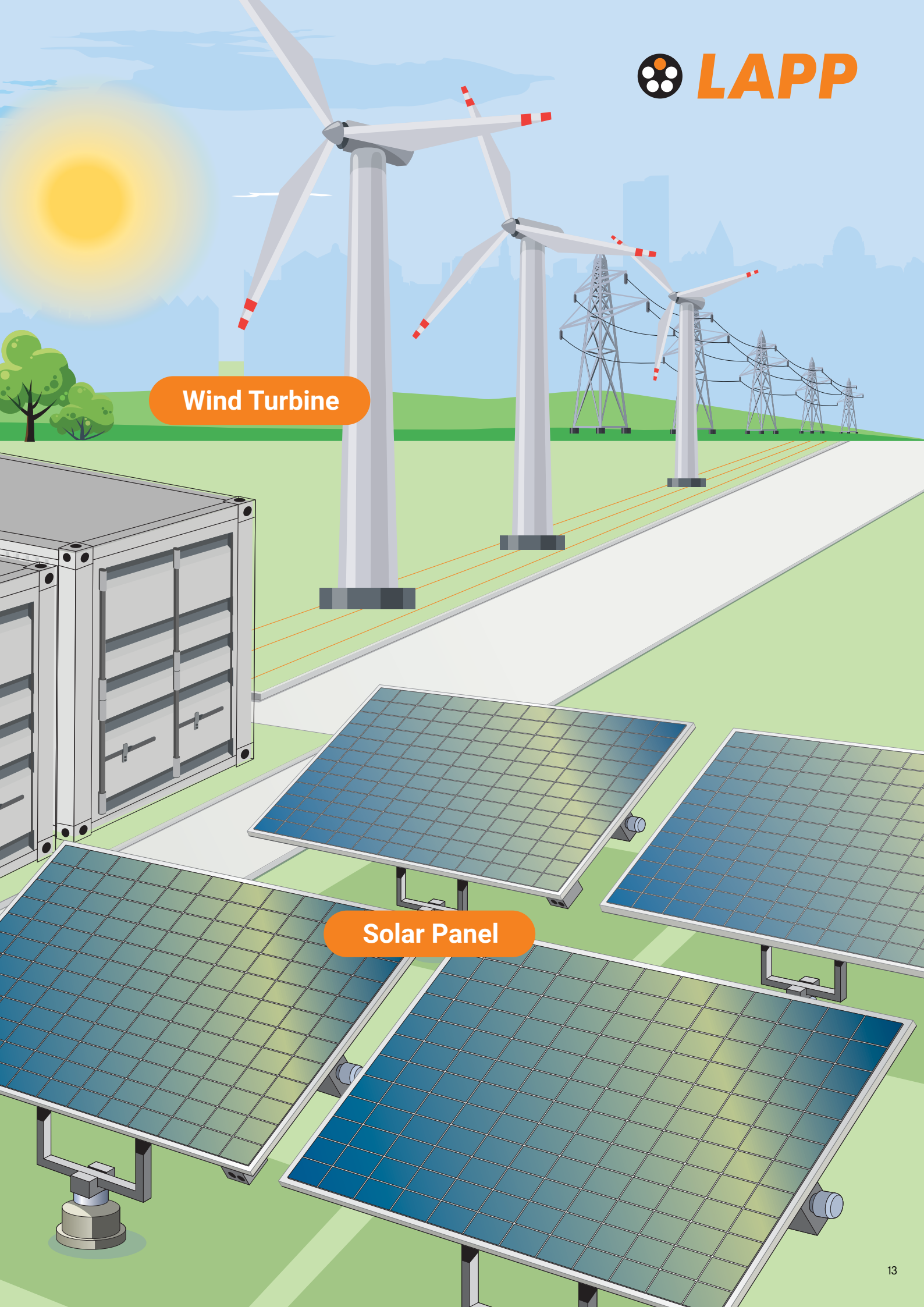
FLEXIMARK® Marking systems

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Powering an ecosystem of new possibilities

The expansion of renewable energies to curb climate change has led to fast-growing demand for photovoltaics, wind turbines and battery energy storage with the need for robust and innovative cabling. Discover how LAPP is poised to optimize energy generation across sectors and drive sustainability momentum for tomorrow with a complete range of reliable connection solutions compliant with recognized industry standards.




LAPP
Wind Turbine
Solar Panel

PRODUCTS FOR PV SYSTEMS

1. ÖLFLEX® SOLAR Photovoltaic cables
2. PVC UNDERGROUND CABLE Power and control cable
3. Medium Voltage Cable
4. UNITRONIC® BUS Data-and BUS cables
5. UNITRONIC® Fieldbus S/A cabling
6. ETHERLINE® Ethernet cabling
7. Solar connectors 1.5kV
8. SKINTOP® ST-M/CLICK Cable glands
9. SKINTOP® SOLAR Photovoltaic cable glands
10. SILVYN® Protective cable conduit and cable carrier systems
11. FLEXIMARK® Cable marking products

Cables

ÖLFLEX® SOLAR XLR-E


ÖLFLEX® SOLAR XLR-E T

ÖLFLEX® SOLAR XLS-R

H1Z2Z2-K

ÖLFLEX® SOLAR XLWP


ÖLFLEX® SOLAR V4A


ÖLFLEX® SOLAR AL FLEX


SOLAR AL FLEX WP

NYY-J, NYY-O

NAYY-J, NAYY-O

NYCWY

UNITRONIC® Li2YCYv (TP)

UNITRONIC® ST


ÖLFLEX® TRAFO XLv 1,8/3 kV

N2XSY

N2XS2Y

N2XS(F)2Y

N2XS(FL)2Y

Connectors


Solar connectors 1.5kV R-type


Solar connectors 1.5kV F-type


Solar connector splitters

Cable glands


SKINTOP® ST-M/SKINTOP® STR-M


SKINTOP® GMP-GL-M


SKINTOP® ST-M/SKINTOP® STR-M


SKINTOP® GMP-GL-M

Protective cable conduit and cable carrier systems


SILVYN® SPLIT


SILVYN® SPLIT COV-M/
SILVYN® SPLIT GMP-M/SILVYN® SPLIT COS


SILVYN® RILL PA 6

Marking Systems


FLEXIMARK®
Stainless steel FCC


FLEXIMARK®
Cablelabel PUR

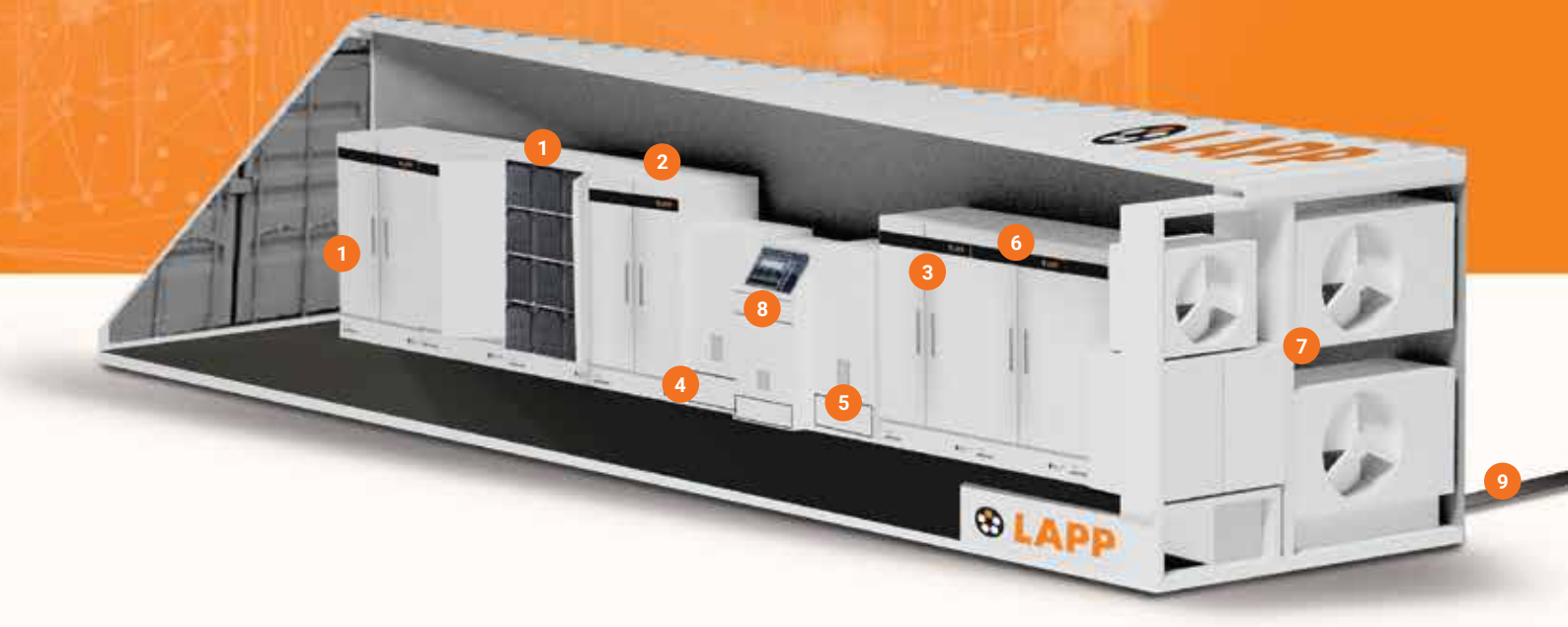
Tools


Ty-Rap® UV-stabilised
cable ties with steel nose


Crimp tool for
solar connectors 1.5kV


Torque wrench for
solar connectors 1.5kV

SECURING A SUSTAINABLE FUTURE THROUGH ENERGY STORAGE



Battery Energy Storage System Application Guide

1 **Battery Module**
- Rack containing layers of battery packs / cells

2 **Battery Management System (BMS)**
- Can be string or module BMS
- Battery status monitoring (voltage, current, temperature)
- Protection alarms
- Communicates to PMS

3 **DC Panel**
- Consists of fuses or circuit breakers
- Triggers if short circuit is detected
- Status communication linked to HMI
- Can be connected to PMS or BMS via CAN/MODBUS

4 **Power Conditioning System (PCS)**
- Inter-conversion control between the power grid (AC), renewable energy generation (DC) and battery (DC)

5 **Power Management System (PMS)**
- Performs overall ESS monitoring including collection and monitoring of battery and PCS operation information and environmental facilities
- Some ESS designs may combine PMS with PCS in one cabinet

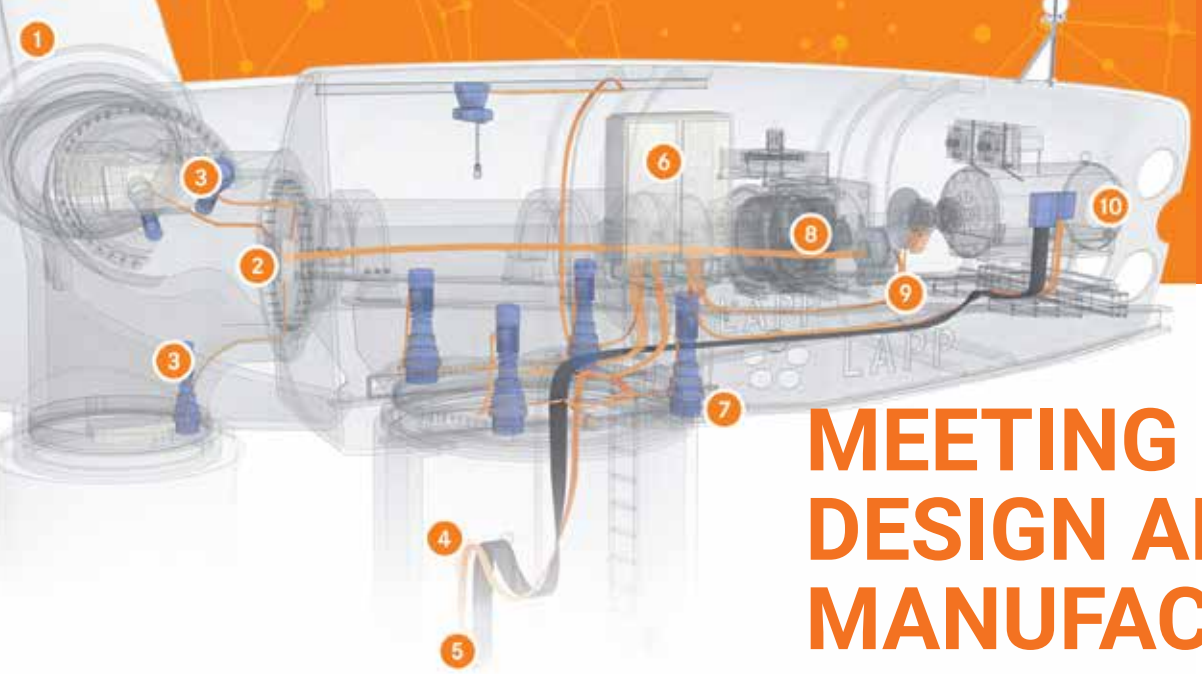
6 **Fire Protection System (FPS)**
- Contains standard safety components including fire detection and suppression
- PMS to trigger FPS in cases of high temperatures detected

7 **HVAC System**
- System to monitor & regulate the environment within the battery ESS
- Some systems may use liquid-cooling instead of air cooling
- Communicates to PMS

8 **Gridpoint Controller (optional)**
- On-grid application: Peak Shaving, Load Shifting, Frequency Regulation
- Off-grid application: Backup power, PV/ESS integrated microgrid control
- Communicates to SCADA systems outside of battery ESS

9 **External Connection (to inverter)**
- Battery ESS connected back to main grid

	1	2	3	4	5	6	7	8	9
ÖLFLEX® Power and control cables									
ÖLFLEX® 191	●	●		●	●	●	●		
ÖLFLEX® TRAY II	●			●	●				
ÖLFLEX® CLASSIC 110	●	●		●	●	●	●		
ÖLFLEX® DC ESS SC		●		●	●				●
ÖLFLEX® DC ESS SC U		●		●	●				●
H07V-K				●	●				
MULTI-STANDARD SC 2.1		●	●	●	●				
ÖLFLEX® WIRE 1063 SC		●	●	●	●				
ÖLFLEX® TRAY 6111 MC	●			●	●				
ETHERLINE® Data communication systems for ETHERNET technology									
ETHERLINE® H CAT.5e	●	●	●	●	●	●	●	●	
ETHERLINE® LAN 350 CAT.6	●	●	●	●	●	●	●	●	
ETHERLINE® CAT.6A SF/UTP	●	●	●	●	●	●	●	●	
ETHERLINE® PN CAT.6A FC	●	●	●	●	●	●	●	●	
ETHERLINE® PN Cabinet CAT.6A	●	●	●	●	●	●			
UNITRONIC® Data communication systems									
UNITRONIC® LiYCY (TP)	●	●	●	●	●	●	●		
UNITRONIC® BUS CAN	●	●	●	●	●	●	●		
UNITRONIC® BUS CAN TRAY	●	●	●	●	●	●	●		
UNITRONIC® BUS LD				●	●	●	●		
HITRONIC® Optical transmission systems									
HITRONIC® Fiber Optic Cables								●	
ÖLFLEX® CONNECT									
ÖLFLEX® CONNECT CABLE SOLUTION	●	●	●	●	●	●	●	●	
EPIC® Industrial connectors									
EPIC® DATA RJ45	●	●	●	●	●	●	●	●	
EPIC® DATA CAN Sub-D	●	●	●	●	●	●	●		
SKINTOP® Cable glands									
SKINTOP® non-metallic glands	●	●	●	●	●	●	●	●	
SKINTOP® CUBE	●	●	●	●	●	●	●	●	
SKINTOP® MULTI	●	●	●	●	●	●	●	●	
SILVYN® Protective cable conduit systems and cable carrier systems									
SILVYN® conduit									●
FLEXIMARK® Marking systems									
Plastic & stainless steel marking	●	●	●	●	●	●	●	●	●



MEETING UNIQUE DESIGN AND MANUFACTURING CHALLENGES

Wind Energy Application Guide

LAPP's turbine components have been expertly designed and field-proven to withstand humidity, condensation, vibration, extreme temperatures, exposure to oil, and electromagnetic interference – any of which could cause unwanted downtime and a negative impact on your bottom line. You'll find our products hard at work in just about every area of the turbine.

1 BLADES

De-ioning:
ÖLFLEX® / UNITRONIC®

Lightning counter:
ÖLFLEX® / UNITRONIC®

2 PITCH SYSTEM: HUB BOX

Battery supply/charger:
ÖLFLEX®

Battery heating:
ÖLFLEX®

Hub light:
ÖLFLEX®

Emergency stop:
ÖLFLEX®

Cable glands:
SKINTOP®

3 PITCH DRIVES

Power supply:
ÖLFLEX®

PTC resistor drive 1, 2 & 3:
UNITRONIC®

Resolver drive 1, 2 & 3:
UNITRONIC®

Limit switch 1, 2 & 3:
UNITRONIC®

Cable glands:
SKINTOP®

4 DRIP LOOP

Power supply 230/400/690V:
ÖLFLEX®

Signals:
ÖLFLEX® / UNITRONIC®

Ethernet:
ETHERLINE®

Communication:
HITRONIC®

5 TOWER CABLES

Lightning:
ÖLFLEX®

Sockets:
ÖLFLEX®

6 TOP BOX & BOTTOM BOX

Internal wiring:
ÖLFLEX® single core

Ethernet:
ETHERLINE®

Cable glands:
SKINTOP®

Cable bushing system:
SKINTOP® CUBE

Marking system:
FLEXIMARK®

7 YAW DRIVES

Main power supply:
ÖLFLEX®

Brake:
ÖLFLEX®

Heater:
ÖLFLEX®

Limit switch:
ÖLFLEX® / UNITRONIC®

Sensor yaw bearing:
UNITRONIC®

Cable glands:
SKINTOP®

Plug & play:
EPIC®

8 GEAR BOX

Heating/cooling:
ÖLFLEX®

Cooling fluid pressure gauge:
UNITRONIC®

Sensors PT 100:
UNITRONIC®

Signals (gear box to top box):
UNITRONIC®

Temperature bearings:
UNITRONIC®

Cable glands:
SKINTOP®

9 SLIP RING: HUB BOX CONNECTION

Supply drives/control:
ÖLFLEX®

Battery supply:
ÖLFLEX®

Signals:
ÖLFLEX®

Heating:
ÖLFLEX®

CAN Bus:
UNITRONIC® BUS CAN

Ethernet:
ETHERLINE® 2 pair

Cable glands:
SKINTOP®

Plug & play:
EPIC®

10 GENERATOR: SECOND TERMINAL BOX

Heating/cooling:
ÖLFLEX®

Sensors PT 100:
UNITRONIC®

Signals (generator to top box):
UNITRONIC®

Temperature bearings:
UNITRONIC®

Cable glands:
SKINTOP®

	1	2	3	4	5	6	7	8	9	10
ÖLFLEX® Power and control cables										
ÖLFLEX® 191	●	●	●	●	●		●	●	●	●
ÖLFLEX® TRAY II	●	●	●	●	●		●	●	●	●
ÖLFLEX® CONTROL TM	●	●	●	●	●		●	●	●	●
ÖLFLEX® CLASSIC 110 CY	●	●	●	●	●		●	●	●	●
ÖLFLEX® HEAT 180 SiF A	●	●	●	●	●		●	●	●	●
H07RN-F	●	●	●	●	●		●	●	●	●
ÖLFLEX® SF	●	●	●	●	●		●	●	●	●
ÖLFLEX® TORSION FRNC				●						
ETHERLINE® Data communication systems for ETHERNET technology										
ETHERLINE® CAT. 6A FLEX				●		●			●	
ETHERLINE® TORSION CAT.5				●	●	●			●	
ETHERLINE® TORSION CAT.6A				●	●	●			●	
EPIC® DATA RJ45				●	●	●				
EPIC® DATA M12D				●		●				
ETHERLINE® ACCESS						●				
TOSIBOX						●				
UNITRONIC® Data communication systems										
UNITRONIC® 300	●		●	●			●	●		●
UNITRONIC® BUS	●		●	●			●	●	●	●
HITRONIC® Optical transmission systems										
HITRONIC® TORSION				●	●					
ÖLFLEX® CONNECT										
ÖLFLEX® CONNECT CABLE SOLUTION		●	●			●	●	●		●
ÖLFLEX® CONNECT SERVO		●	●				●			
EPIC® Industrial connectors										
EPIC® HB ULTRA housings							●		●	
EPIC® HA series inserts							●		●	
EPIC® POWER LS1							●		●	
EPIC® H-BE series inserts							●		●	
EPIC® MC series modules							●		●	
EPIC® SIGNAL M23							●		●	
SKINTOP® Cable glands										
SKINTOP® metallic glands		●	●			●	●	●	●	●
SKINTOP® MS0SC		●	●			●	●	●	●	●
SKINTOP® non-metallic glands		●	●			●	●	●	●	●
SKINTOP® CUBE		●	●			●	●	●	●	●
SILVYN® Protective cable conduit systems and cable carrier systems										
SILVYN® conduit							●	●	●	
FLEXIMARK® Marking systems										
Plastic and stainless steel		●	●	●	●	●	●	●	●	●

POWERING INTELLIGENT AUTOMATED LOGISTICS AT EVERY TURN

From conveyor technology to intelligent sorting, LAPP's innovative solutions streamline picking, goods tracking and optimise key processes in warehousing and logistics. Our robust components save time and money within facilities where every second counts.

1. **Automated Storage & Retrieval System**
2. **Monorail System**
3. **High Speed Multi-Layer Shuttle System**
4. **Stacker**
5. **Conveyor System**
6. **Storage & Order Picking System**
7. **Automatic Sorting System**
8. **AGV/AMR**
9. **Robotic Stacker**
10. **Warehouse Information Management System**
11. **Small Parts Storage & Picking System**

	1	2	3	4	5	6	7	8	9	10	11
ÖLFLEX® Power and control cables											
ÖLFLEX® CLASSIC 100	●	●	●		●	●	●	●			●
ÖLFLEX® CLASSIC 110 BK	●	●	●		●	●	●	●			●
ÖLFLEX® CLASSIC 115 CY					●	●	●				●
ÖLFLEX® CLASSIC FD 810 CY	●			●					●		
ÖLFLEX® FD 855P / 855CP	●			●					●		
ÖLFLEX® FD 890 / 890 CY	●			●					●		
ÖLFLEX® CHAIN 809	●			●					●		
60227 IEC 06(RV) / H05V-K					●	●	●				●
ÖLFLEX® 190 / 190 CY	●	●	●		●	●	●				●
ÖLFLEX® TRAY II / TRAY II CY	●	●	●		●	●	●				●
ÖLFLEX® SERVO FD 7FTC	●		●					●			
ÖLFLEX® SERVO FD 7TCE	●		●					●			
ÖLFLEX® VFD (w/wo signal)	●	●	●		●		●				
ÖLFLEX® VFD 1XL(w/wo signal)	●	●	●		●		●				
ÖLFLEX® VFD 2XL (w/wo signal)	●	●	●		●		●				
ÖLFLEX® ROBOT F1/F1 ©									●		
ETHERLINE® Data communication systems for ETHERNET technology											
ETHERLINE® PN CAT.6A FD FC									●		
ETHERLINE® Cat.6 FD									●		
ETHERLINE® CAT.6A	●		●	●	●	●	●	●	●	●	●
TOSIBOX®	●									●	
ETHERLINE® Cat.5e	●		●	●	●	●	●		●	●	●
ETHERLINE® Cat.7	●		●		●	●	●		●	●	●
UNITRONIC® Data communication systems											
UNITRONIC® LiYCY					●					●	●
UNITRONIC® LiYY					●						●
UNITRONIC® BUS ASI					●						●
UNITRONIC® BUS PB FD	●			●							
UNITRONIC® 300 Series					●					●	●
UNITRONIC® 190 Series					●					●	●
HITRONIC® Optical transmission systems											
HITRONIC® TORSION									●		
ÖLFLEX® CONNECT											
ÖLFLEX® CONNECT CABLE SOLUTION	●		●	●	●	●	●	●	●		●
EPIC® Industrial connectors											
EPIC® HB ULTRA housings	●		●		●		●	●	●		●
EPIC® HA series inserts	●		●					●	●		●
EPIC® POWER LS1	●		●		●		●	●	●		●
EPIC® SIGNAL M23	●		●		●		●	●	●		●
EPIC® DATA RJ45	●		●	●	●	●	●		●		
EPIC® DATA M12X / EPIC® DATA M12D	●		●	●	●	●	●		●		
EPIC® POWER M12L	●		●	●	●	●	●	●	●		●
SKINTOP® Cable glands											
SKINTOP® metallic glands	●		●	●	●			●			●
SKINTOP® non-metallic glands	●	●	●	●	●	●	●	●	●		●
SKINTOP® CUBE		●			●	●					
SILVYN® Protective cable conduit systems and cable carrier systems											
SILVYN® conduit				●				●	●		●
FLEXIMARK® Marking systems											
FLEXIMARK® cable markers	●	●	●	●	●	●	●	●	●	●	●

ÖLFLEX® CONNECT

System solutions made by LAPP

With ÖLFLEX® CONNECT, we completed the step from component supplier to system supplier, offering complete solutions from a single source – from specialised cable assemblies and industry-standard servo connections to complex high-speed drag chain systems. We are constantly expanding our engineering, production and assembly capacities around the world.

The benefits for you:

- No capital expenditure for own production facilities
- Lean supply base leads to lower operating costs
- Low inventory levels thanks to complete assemblies
- Excellent functional reliability

ÖLFLEX® CONNECT CABLES

www.lappkabel.com/oelflexconnect

Cable systems made by LAPP
Our product range stretches from single cores and multicore cables through to EMC-shielded cables, all of which can be fitted with a wide selection of crimp contacts, connectors and housings. We also offer highly flexible and durable spiral cables in premium quality, as well as glass fibre assemblies, which we can produce, test and deliver in both standard and custom lengths.

Our comprehensive range of services:
- Cable cutting as required
- Unwinding with specified bending radius
- Stripping, crimping, heat shrinking
- Markings & printings
- Testing

ÖLFLEX® CONNECT CHAIN

Power chain systems made by LAPP
When it comes to assembled drag chains, you can benefit from our extensive know-how and many years of experience.

basic chain | **core chain** | **extended chain**

basic chain
Nylon or steel drag chains with highly flexible cables, cable protection conduits, hydraulic or pneumatic hoses with **no termination** such as connectors or flanges

core chain
Nylon or steel drag chains with highly flexible cables, cable protection conduits, hydraulic or pneumatic hoses **including termination** (connectors, flanges)

extended chain
Nylon or steel drag chains with highly flexible cables, cable protection conduits, hydraulic or pneumatic hoses **including termination** (connectors, flanges) **and functional units** such as towing arms or supporting structures

ÖLFLEX® CONNECT SERVO

Servo systems made by LAPP
As a leading manufacturer of assembled servo cable systems, we offer solutions for all industry standards for customers from different areas of me chanical engineering and drive systems. These range from the cost-effective basic line for applications free of aggressive environmental influences, to the core line that is specially designed for dynamic applications, right up to the highly dynamic performance class of the extended line. LAPP therefore offers the right solution for every set of requirements.

basic chain | **core chain** | **extended chain**

Service & Quality

Uncompromising quality – worldwide
With the same values of quality and precision around the world, you will always be on the safe side with branded products from LAPP. At our R&D laboratories in Korea, China, India and Singapore, we put our products through their paces with the same stringent tests as we do in Germany. Here we simulate all kinds of movements to determine the service life of cables and wires as well as test for flame resistance according to the relevant standards. The result: uncompromising quality from LAPP.

Customised solutions
Our teams in Asia understand the requirements of our customers in the markets of Asia Pacific and can bring their technical expertise to provide customised solutions for challenging requirements. Whether it's a standard product or a customised special production: every product launched has undergone a demanding development process. Only once the prototypes have been thoroughly tried and tested does production begin.

Perfect projects
We turn challenging projects into success stories. That is what drives us. From fibre optic networks and control cables to power supply, you can put your trust in the infrastructure and product expertise of our outstanding project teams. Benefit from expert consulting and an all-round service that leaves nothing to be desired.

With the benefit of local market expertise, we work together closely – to understand what you need, create a precise schedule, develop the right solution for your specific requirements, clarify delivery times and product details, and coordinate logistics. Protect your resources, benefit from our expertise, and reap the rewards.

Logistics

With our Asia Pacific network of 5 major warehouse locations and additional service points across India, our ASEAN presence and stocking partners, plus a global warehouse of 70,000 m² of storage space in Germany alone, we hold the stocks for all you need – anytime, all the time.

Reliably connecting the world
Who actually likes waiting for a product or service? We won't leave you hanging – we offer speedy delivery to anywhere in the world. After all, we have a close-knit network of logistics centres. With the finest in high-tech quality, we guarantee a smooth delivery service.

Logistic Services
Find out about our range of logistic services. Simple length cutting straight from our drum packaging, scheduled order, special packaging or special import documentation, customised labels and much more. If you can't find an appropriate solution for your needs, we are happy to advise you personally.

You Can Reach Us

We are where you are

Visit LAPP APAC website:

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We keep your industry alive

Our lifelines distribute your power to wherever needed. Our neural systems synchronize the seamless interplay of your production.

The high-performance industry solutions by LAPP provide the most profound expertises in the market. Reliable connections for every project, for every venture, for every industry.

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alive BY LAPP

Uncompromising quality – worldwide

ÖLFLEX®
Power and control cables

ÖLFLEX® has become synonymous with power and control cables. Our flexible and oil-resistant cables satisfy the highest demands and can withstand even the very toughest conditions.

UNITRONIC®
Data communication systems

Our high-quality UNITRONIC® data network cables and field bus components provide a forward-looking solution for all applications in industrial machinery and plant engineering. From transmission of simple control signals to field bus signals in complex network structures – we offer a dependable cabling and connection solution for almost every situation.

ETHERLINE®
Data communication systems for ETHERNET technology

Our ETHERLINE® branded products open up a secure, fast and reliable path to the future of Ethernet appliacations, e. g. PROFINET®. The systems are made up of durable and robust cables and connection components for passive and active network technology, and deliver an effective solution for almost any application, particularly in an industrial environment.

HITRONIC®
Optical transmission systems

HITRONIC® fibre optic cables make transmitting large data volumes easy: fault free, bug proof and at almost light speed. Even electromagnetic radiation does not interfere with the transmission. The HITRONIC® range includes the ideal solution for indoor or outdoor use, for demanding conditions, and even for use in power chains.

EPIC®
Industrial connectors

EPIC® industrial connectors can be found everywhere in industrial machinery and plant engineering, for measuring, control and drives. EPIC® is a flexible system of housings, inserts and contacts: all extremely robust, absolutely safe and simplicity itself to assemble.

SKINTOP®
Cable glands

Simply feed in the cable and twist. That's it. Our SKINTOP® cable glands provide secure connections in no time. The universal systems are simple but effective. They secure and centre the cable, hermetically seal it and guarantee optimum strain relief.

SILVYN®
Protective cable conduit systems and cable carrier systems

The universal range of SILVYN® protection and guidance systems protect cables effectively against dust, moisture, mechanical, thermal and chemical influences. The versatile SILVYN® CHAIN range of energy supply chains also protects and guides cables in dynamic applications.

FLEXIMARK®
Marking systems

The requirement: permanent marking. The solution: FLEXIMARK®. These sophisticated systems mean that a clear overview inside a control cabinet is no longer just a pipe dream. From simple labels for manual marking through to electronic markings, the FLEXIMARK® range is guaranteed to be permanent.

1

ÖLFLEX®

Power and control cables

ÖLFLEX® has become synonymous with power and control cables. Our flexible and oil-resistant cables satisfy the highest demands and can withstand even the very toughest conditions.

Application range

- Industrial machinery, machine tools, plant and equipment engineering
- Measurement, control, heating and air conditioning systems
- Wind power and photovoltaic systems
- Public buildings, airports and stations
- Medical technology, chemical industry, composting plants and sewage works
- Food and beverage industry
- Power drive systems
- Robot applications
- Railway applications

General applications

Harsh environment

Servo applications

Robotics

Special applications

Renewable energy applications

Control cabinet applications

Building applications

Rolling stock

ÖLFLEX® CONTROL 35T

TISI-certified PVC control cable for a wide range of applications

Info

- TISI marked cable

Benefits

- Economic solution for basic applications

Application range

- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load
- Dry or damp rooms that are subject to medium mechanical loads

Norm references / Approvals

- Based on IEC 60227-5
- TISI tested and certified acc. to TIS 11-2553, Part 5, Table 9 up to 2.5mm²

Product features

- Flame-retardant according IEC 60332-1-2

Product Make-up

- Fine-wire strand made of bare copper wires
- PVC core insulation
- Cores twisted in layers
- PVC outer sheath, grey (similar RAL 7001)

Technical data

Conductor stranding
Fine wire according to IEC 60228 class 5

Minimum bending radius
Occasional flexing: 10 x outer diameter
Fixed installation: 4 x outer diameter

Rated voltage
U_0/U: 300/500 V

Test voltage
2000 V

Temperature range
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +80°C

Core identification code
Black with white numbers

Protective Conductor
G = with GN-YE protective conductor
X = without protective conductor

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL 35T				
8105301	2 X 0.75	6.5	14.4	57
8105302	2 X 1	6.7	19.2	66
8105303	2 X 1.5	7.7	28.8	86
8105304	2 X 2.5	9.5	48.0	132
8105305	2 X 4	10.9	76.8	183
8105306	3 G 0.75	6.8	21.6	68
8105307	3 G 1	7.2	28.8	79
8105308	3 G 1.5	8.4	43.2	108
8105309	3 G 2.5	10.3	72.0	165
8105310	3 G 4	11.6	115.2	232
8105311	4 G 0.75	7.5	28.8	82
8105312	4 G 1	8.1	38.4	100
8105313	4 G 1.5	9.5	57.6	137
8105314	4 G 2.5	11.3	96.0	203
8105315	4 G 4	12.9	153.6	295
8105316	5 G 0.75	8.4	36.0	103
8105317	5 G 1	8.8	48.0	120
8105318	5 G 1.5	10.5	72.0	169
8105319	5 G 2.5	12.6	120.0	251
8105320	5 G 4	14.4	192.0	365

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

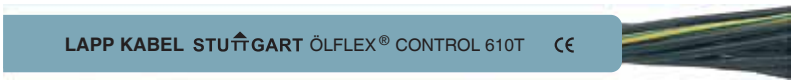
NEW

ÖLFLEX® CONTROL 610T

PVC control cable for a wide range of applications

Info

- Small cable diameter



Benefits

- Space saving due to small cable diameter

Application range

- Used as a connection cable for measuring, monitoring and control connections in industrial machineries, heating and air refrigeration systems, o ce equipment, etc.
- Dry or damp rooms that are subject to medium mechanical loads
- Fixed installations as well as for occasional flexing at free, non-continuously recurring movement without tensile load

Norm references / Approvals

- Based on IEC 60502-1 and IS 694

Product features

- Flame-retardant according IEC 60332-1-2

Product Make-up

- Fine-wire strand made of bare copper wires
- PVC core insulation
- Cores twisted in layers
- PVC outer sheath, grey (similar RAL 7001)

Technical data

Conductor stranding
Fine wire according to IEC 60228 class 5

Minimum bending radius
Occasional flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Rated voltage
U_0/U: 600/1000 V

Test voltage
3500 V

Temperature range
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +80°C

Core identification code
Black with white numbers

Protective Conductor
G = with GN-YE protective conductor
X = without protective conductor

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL 610T				
8106101	2 X 0.5	6.3	9.6	52
8106102	2 X 0.75	6.7	14.4	62
8106103	2 X 1	7.0	19.2	70
8106104	2 X 1.5	7.5	28.8	84
8106105	2 X 2.5	9.0	48.0	126
8106106	3 G 0.5	6.6	14.4	60
8106107	3 G 0.75	7.1	21.6	72
8106108	3 G 1	7.4	28.8	83
8106109	3 G 1.5	8.0	43.2	101
8106110	3 G 2.5	9.6	72.0	152
8106111	4 G 0.5	7.2	19.2	72
8106112	4 G 0.75	7.7	28.8	87
8106113	4 G 1	8.1	38.4	101
8106114	4 G 1.5	8.9	57.6	128
8106115	4 G 2.5	10.4	96.0	188
8106116	5 G 0.5	7.8	24.0	86
8106117	5 G 0.75	8.4	36.0	104
8106118	5 G 1	9.0	48.0	126
8106119	5 G 1.5	9.7	72.0	154
8106120	5 G 2.5	11.4	120.0	228

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® CONTROL TM

ÖLFLEX® Control Cable PVC 0.6/1kV UL TC-ER WTTC AWM 1000V WET OIL RES I+II CSA AWM

Info

- Torsion resistant for drip loops
- Wide application range (NFPA 70/NEC)/ compliance with NFPA 79 for industrial machinery
- (UL) SUN. RES. + 75C WET

Benefits

- Many certifications/ use types
- Cost-saving, fast installation omitting protection systems
- 75 °C WET Rating + Sunlight Resistant Rating: Outdoor use in the USA

Application range

- Industrial machinery, plant engineering in the USA
- Compliant with Tool machines: (UL) MTW
- Unprotected 600V operation on cable tray in the USA, incl. 6 ft. Exposed Run laying sections for version with at least 3 conductors
- USA Wind Turbine Tray Cable (WTTC) for Wind Turbine Generators
- Outdoor use and Direct Burial in the USA, per UL 1277

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Technically resistant to sunlight and ozone

Norm references / Approvals

- USA: (UL) TC [E171371], -ER > 2 conductors, (UL) MTW [E155920], (UL) WTTC [E323700], (UL) THHN/THWN (> 1.5 mm²/16 AWG) [E172162], UL AWM Style 20886 [E100338]
- Sunlight Resistant (Sun. Res.), Direct Burial (Dir. Bur.), Submersible Pump Cable (> 1.5 mm²/16 AWG, and < 8 conductors), (UL) PLTC (< 6 mm²/10 AWG) [E216027], (UL) ITC (< 6 mm²/10 AWG) [E196134], (UL) DP-1 [E233406]
- UL OIL RES I/ II, 75°C WET, 90°C DRY, NEC/NFPA 70, NFPA 79
- CAN: c(UL) CIC/ TC 600V FT4 [E171371], CSA AWM I/II A/B FT1

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Outer jacket: Specially formulated thermoplastic polymer
- Color of the outer jacket: Gray

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine-wire, bare copper strand

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/15xOD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL AWM: 600 V
CSA AWM: 1000 V
IEC: U_0/U = 600/1000 V

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL TM				
281803	3 G 1.0	7.4	28.8	82
281804	4 G 1.0	8.0	38.4	95
281805	5 G 1.0	8.6	48	112
281807	7 G 1.0	9.3	67	144
281812	12 G 1.0	12.0	115	247
281818	18 G 1.0	14.7	173	365
281825	25 G 1.0	16.7	240	464
281602	2 X 1.5	7.3	28.8	74
281603	3 G 1.5	8.1	43	100
281604	4 G 1.5	8.8	58	119
281605	5 G 1.5	9.5	72	141
281607	7 G 1.5	10.3	101	183
281609	9 G 1.5	11.9	129.6	247
281612	12 G 1.5	14.1	172.8	328

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
281618	18 G 1.5	16.4	259	403
281625	25 G 1.5	18.6	360	596
281403	3 G 2.5	8.9	72	125
281404	4 G 2.5	9.8	96	175
281405	5 G 2.5	10.7	120	185
281407	7 G 2.5	11.6	168	244
281203	3 G 4.0	10.6	115	165
281204	4 G 4.0	11.5	154	220
281205	5 G 4.0	12.6	192	269
281207	7 G 4.0	14.6	269	482
281004	4 G 6.0	14.5	231	382
281005	5 G 6.0	15.8	288	457
280804	4 G 10.0	17.7	384	615
280805	5 G 10.0	19.4	480	771
280604	4 G 16.0	22.5	615	864

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ÖLFLEX® CONTROL TM CY

ÖLFLEX® Control Cable PVC Screened 0.6/1kV UL TC-ER WTTC AWM600V OIL RES CSA AWM

Info

- Torsion resistant for drip loops
- Wide application range (NFPA 70/NEC)/ compliance with NFPA 79 for industrial machinery
- EMC/Screened

Benefits

- Many certifications/ use types
- Cost-saving, fast installation omitting protection systems
- Electromagnetic field screening
- 75 °C WET Rating + Sunlight Resistant Rating: Outdoor use in the USA

Application range

- Industrial machinery, plant engineering in the USA
- Unprotected 600V operation on cable tray in the USA, incl. 6 ft. Exposed Run laying sections for version with at least 3 conductors
- Compliant with Tool machines: (UL) MTW
- USA Wind Turbine Tray Cable (WTTC) for Wind Turbine Generators
- Outdoor use and Direct Burial in the USA, per UL 1277

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Technically resistant to sunlight and ozone
- High degree of screening low transfer impedance (max. 250 Ω/km at 30 MHz)
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / Approvals

- USA: (UL) TC [E171371], -ER > 2 conductors, (UL) MTW [E155920], (UL) WTTC [E323700], (UL) THHN/THWN (> 1.5 mm²/16 AWG) [E172162], UL AWM Style 20886 [E100338]
- Sunlight Resistant (Sun. Res.), Direct Burial (Dir. Bur.), Submersible Pump Cable (> 1.5 mm²/16 AWG, and < 8 conductors), (UL) PLTC (< 6 mm²/10 AWG) [E216027], (UL) ITC (< 6 mm²/10 AWG) [E196134], (UL) DP-1 [E233406]
- UL OIL RES I/ II, 75°C WET, 90°C DRY, NEC/NFPA 70, NFPA 79
- CAN: c(UL) CIC/ TC 600V FT4 [E171371], CSA AWM I/II A/B FT1

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC with nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer jacket: Specially formulated thermoplastic polymer
- Color of the outer jacket: Gray

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine-wire, bare copper strand

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/20 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL AWM: 600 V
CSA AWM: 1000 V
IEC: U_0/U = 600/1000 V

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CONTROL TM CY				
281803CY	3 G 1.0	8.1	49.5	119
281804CY	4 G 1.0	8.6	60.2	137
281805CY	5 G 1.0	9.3	81.4	149
281807CY	7 G 1.0	10.0	101.1	193
281812CY	12 G 1.0	12.8	161.4	281
281818CY	18 G 1.0	15.5	228.2	438
281825CY	25 G 1.0	17.5	326.4	574
281603CY	3 G 1.5	8.8	65	144
281604CY	4 G 1.5	9.4	81.9	173
281605CY	5 G 1.5	10.2	99.1	189

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
281607CY	7 G 1.5	11.1	140.4	246
281612CY	12 G 1.5	15.0	225.2	426
281618CY	18 G 1.5	17.2	321.7	552
281403CY	3 G 2.5	9.7	105.7	180
281404CY	4 G 2.5	10.4	135.6	223
281405CY	5 G 2.5	11.5	160.3	268
281407CY	7 G 2.5	12.4	213	327
281204CY	4 G 4.0	12.3	198.5	315
281205CY	5 G 4.0	14.2	242.7	388
281004CY	4 G 6.0	15.3	284.2	552
280804CY	4 G 10.0	18.5	458.4	857

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ÖLFLEX® 191K

Info

- Flexible multi core AWM cable
- UL STYLE AWM 21098
  cRU AWM I/II A/B FT1

Benefits

- Flexible design makes installation easy, and even products with large conductor size are available
- High temperature range up to 90°C

Application range

- Plant engineering / Industrial machinery / air-conditioning systems
- For fixed installation in conditions requiring general mechanical durability
- Occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Environments where general AWM multi-core cables can be applied

Product features

- Flame-retardant according to IEC 60332-1-2 or VW-1
- Wide temperature range up to 90°C
- Oil-resistant

Norm references / Approvals

- UL STYLE AWM 21098
  cRU AWM I/II A/B FT1
- Cable design meets UL 758

Product Make-up

- Fine-wire strand made of bare copper wires (IEC 60228 CLASS 5)
- PVC core insulation
- PVC outer sheath, grey or black color

Technical data

Core identification code
Black with white numbers acc. to VDE 0293-334

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Nominal voltage
AC 600 V

Test voltage
AC 2000 V

Minimum bending radius
Fixed installation: 4 x outer diameter / occasional flexing: 15 x outer diameter

Protective conductor
G = with GN-YE protective conductor, X = without protective conductor

Temperature range
Fixed installation: UL : - 40°C to + 90°C
Occasional flexing: UL: - 5°C to + 90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191K					
85192222	7 G 0.75	8.3	Grey	50.4	116
85192223	9 G 0.75	10.5	Grey	64.8	152
85192224	12 G 0.75	11.2	Grey	86.4	194
85192113	3 G 1	6.7	Grey	28.8	66
85192114	4 G 1	7.2	Grey	38.4	81
85192115	5 G 1	8.1	Grey	48.0	95
85192116	7 G 1	8.9	Grey	67.2	125
85192117	12 G 1	12.0	Grey	115.2	211
85192118	18 G 1	14.4	Grey	172.8	309
85192119	25 G 1	17.3	Grey	240.0	413
85192136	2 X 1.5	6.9	Grey	28.8	74
85192137	3 X 1.5	7.3	Grey	44.0	91
85192138	4 X 1.5	8.2	Grey	58.0	112
85192139	5 X 1.5	9.0	Grey	72.0	136
85192140	7 X 1.5	10.0	Grey	101.0	179
85192125	9 X 1.5	12.6	Grey	129.6	230
85192142	12 X 1.5	13.4	Grey	173.0	313
85192143	18 X 1.5	16.1	Grey	260.0	444
85192144	25 X 1.5	19.5	Grey	360.0	620
85192150	3 G 2.5	8.4	Grey	72.0	138
85192151	4 G 2.5	9.1	Grey	96.0	182
85192152	5 G 2.5	10.2	Grey	120.0	216
85192153	7 G 2.5	11.3	Grey	168.0	286
85192160	3 G 4	9.9	Grey	115.2	202
85192161	4 G 4	10.8	Grey	154.0	245
85192162	5 G 4	12.1	Grey	192.0	310
85192167	7 G 4	13.4	Grey	268.8	470
85192165	4 G 6	13.0	Grey	231.0	398
85192166	5 G 6	14.5	Grey	288.0	479
85192169	4 G 10	16.5	Grey	384.0	559
85192170	5 G 10	18.4	Grey	480.0	782
85192172	4 G 16	22.1	Grey	615.0	904
85192173	5 G 16	24.3	Grey	768.0	1,171
85192175	4 G 25	25.2	Grey	960.0	1,299
85192176	5 G 25	28.0	Grey	1,200.0	1,640
85192178	4 G 35	28.1	Grey	1,344.0	2,119
85192179	5 G 35	31.5	Grey	1,680.0	2,606
85192205	4 G 50	35.7	Grey	1,920.0	2,898
85192206	4 G 70	43.0	Grey	2,688.0	4,052
85192207	4 G 95	47.2	Grey	3,648.0	5,430
85192208	4 G 120	51.0	Grey	4,608.0	6,290

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
85192422	7 G 0.75	8.3	Black	50.4	116
85192423	9 G 0.75	10.5	Black	64.8	152
85192424	12 G 0.75	11.2	Black	86.4	194
85192313	3 G 1	6.7	Black	28.8	66
85192314	4 G 1	7.2	Black	38.4	81
85192315	5 G 1	8.1	Black	48.0	95
85192316	7 G 1	8.9	Black	67.2	125
85192317	12 G 1	12.0	Black	115.2	211
85192318	18 G 1	14.4	Black	172.8	309
85192319	25 G 1	17.3	Black	240.0	413
85192336	2 X 1.5	6.9	Black	28.8	74
85192337	3 X 1.5	7.3	Black	44.0	91
85192338	4 X 1.5	8.2	Black	58.0	112
85192339	5 X 1.5	9.0	Black	72.0	136
85192340	7 X 1.5	10.0	Black	101.0	179
85192325	9 X 1.5	12.6	Black	129.6	230
85192342	12 X 1.5	13.4	Black	173.0	313
85192343	18 X 1.5	16.1	Black	260.0	444
85192344	25 X 1.5	19.5	Black	360.0	620
85192350	3 G 2.5	8.4	Black	72.0	138
85192351	4 G 2.5	9.1	Black	96.0	182
85192352	5 G 2.5	10.2	Black	120.0	216
85192353	7 G 2.5	11.3	Black	168.0	286
85192360	3 G 4	9.9	Black	115.2	202
85192361	4 G 4	10.8	Black	154.0	245
85192362	5 G 4	12.1	Black	192.0	310
85192367	7 G 4	13.4	Black	268.8	470
85192365	4 G 6	13.0	Black	231.0	398
85192366	5 G 6	14.5	Black	288.0	479
85192369	4 G 10	16.5	Black	384.0	559
85192370	5 G 10	18.4	Black	480.0	782
85192372	4 G 16	22.1	Black	615.0	904
85192373	5 G 16	24.3	Black	768.0	1,171
85192375	4 G 25	25.2	Black	960.0	1,299
85192376	5 G 25	28.0	Black	1,200.0	1,640
85192378	4 G 35	28.1	Black	1,344.0	2,119
85192379	5 G 35	31.5	Black	1,680.0	2,606
85192405	4 G 50	35.7	Black	1,920.0	2,898
85192406	4 G 70	43.0	Black	2,688.0	4,052
85192407	4 G 95	47.2	Black	3,648.0	5,430
85192408	4 G 120	51.0	Black	4,608.0	6,290

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ÖLFLEX® 191K CY

Info

- Screened Flexible multi core AWM approval cable
- UL STYLE AWM 21098 cRU AWM I/II A/B FT1

Benefits

- Screened Flexible design makes installation easy
- High electrical performance due to 4 kV test voltage
- For various applications

Application range

- Plant engineering / Industrial machinery / air-conditioning systems
- In EMC-sensitive environments
- For fixed installation in conditions requiring general mechanical durability
- Occasional flexing at free, non-continuously recurring movement without tensile load or compulsory guidance
- Environments where general AWM multi-core cables can be applied

Product features

- Flame-retardant according to IEC 60332-1-2 or VW-1
- Wide temperature range up to 90°C
- High degree of screening
- Oil-resistant

Norm references / Approvals

- UL STYLE AWM 21098 cRU AWM I/II A/B FT1
- Cable design meets UL 758

Product Make-up

- Fine-wire strand made of bare copper wires (IEC 60228 CLASS 5)
- PVC core insulation
- PVC inner sheath, grey
- Tinned-copper braiding
- PVC outer sheath, grey or black color

Technical data

Core identification code
Black with white numbers acc. to VDE 0293-334

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Nominal voltage
AC 600 V (UL)

Test voltage
AC 4000 V

Minimum bending radius
Fixed installation: 6 x outer diameter / occasional flexing: 20 x outer diameter

Protective conductor
G = with GN-YE protective conductor, X = without protective conductor

Temperature range
Fixed installation: UL : - 40°C to + 90°C
Occasional flexing: UL: - 5°C to + 90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 191K CY					
85192578	7 G 0.75	10.5	Grey	85.9	187
85192579	2 X 1	8.4	Grey	48.0	126
85192580	3 G 1	8.8	Grey	55.8	122
85192581	4 G 1	9.6	Grey	80.8	157
85192582	5 G 1	10.3	Grey	89.4	183
85192583	7 G 1	11.2	Grey	99.9	207
85192584	12 G 1	14.6	Grey	175.7	342
85192585	18 G 1	17.0	Grey	241.7	472
85192586	25 G 1	20.1	Grey	341.7	648
85192598	2 X 1.5	9.0	Grey	64.7	156
85192587	3 G1.5	9.6	Grey	89.1	166
85192588	4 G1.5	10.3	Grey	96.6	191
85192589	5 G1.5	11.3	Grey	111.2	222
85192590	7 G1.5	12.1	Grey	145.2	270
85192687	9 G1.5	15.4	Grey	224.0	415
85192591	12 G1.5	16.1	Grey	257.0	464
85192688	14 G1.5	16.7	Grey	326.0	620
85192592	18 G1.5	18.7	Grey	382.8	679
85192593	25 G1.5	23.0	Grey	546.2	952
85192594	3 G 2.5	10.8	Grey	111.1	221
85192595	4 G 2.5	11.4	Grey	140.6	269
85192596	5 G 2.5	12.9	Grey	167.3	325
85192597	7 G 2.5	14.1	Grey	240.0	421
85192642	12 G 2.5	17.9	Grey	414.9	769
85192643	18 G 2.5	22.0	Grey	626.1	1,102
85192644	4 G 4	13.6	Grey	236.7	462
85192645	5 G 4	14.9	Grey	277.8	535
85192646	7 G 4	16.2	Grey	393.4	735
85192648	4 G 6	15.8	Grey	317.1	574
85192649	5 G 6	17.3	Grey	413.7	737
85192650	7 G 6	18.8	Grey	563.8	950
85192651	4 G 10	19.5	Grey	550.4	946
85192652	4 G 16	24.7	Grey	819.1	1,189
85192653	4 G 25	28.7	Grey	1,165.0	1,692
85192654	4 G 35	32.0	Grey	1,683.0	2,700
85192655	4 G 50	39.7	Grey	2,342.0	3,362
85192656	4 G 70	44.8	Grey	3,229.0	4,490
85192657	4 G 95	50.0	Grey	4,010.0	5,540
85192658	4 G 120	55.4	Grey	5,012.0	6,960

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
85192778	7 G 0.75	10.5	Black	85.9	187
85192779	2 X 1	8.4	Black	48.0	126
85192780	3 G 1	8.8	Black	55.8	122
85192781	4 G 1	9.6	Black	80.8	157
85192782	5 G 1	10.3	Black	89.4	183
85192783	7 G 1	11.2	Black	99.9	207
85192784	12 G 1	14.6	Black	175.7	342
85192785	18 G 1	17.0	Black	241.7	472
85192786	25 G 1	20.1	Black	341.7	648
85192798	2 X 1.5	9.0	Black	64.7	156
85192787	3 G1.5	9.6	Black	89.1	166
85192788	4 G1.5	10.3	Black	96.6	191
85192789	5 G1.5	11.3	Black	111.2	222
85192790	7 G1.5	12.1	Black	145.2	270
85192887	9 G1.5	15.4	Black	224.0	415
85192791	12 G1.5	16.1	Black	257.0	464
85192888	14 G1.5	16.7	Black	326.0	620
85192792	18 G1.5	18.7	Black	382.8	679
85192793	25 G1.5	23.0	Black	546.2	952
85192794	3 G 2.5	10.8	Black	111.1	221
85192795	4 G 2.5	11.4	Black	140.6	269
85192796	5 G 2.5	12.9	Black	167.3	325
85192797	7 G 2.5	14.1	Black	240.0	421
85192842	12 G 2.5	17.9	Black	414.9	769
85192843	18 G 2.5	22.0	Black	626.1	1,102
85192844	4 G 4	13.6	Black	236.7	462
85192845	5 G 4	14.9	Black	277.8	535
85192846	7 G 4	16.2	Black	393.4	735
85192848	4 G 6	15.8	Black	317.1	574
85192849	5 G 6	17.3	Black	413.7	737
85192850	7 G 6	18.8	Black	563.8	950
85192851	4 G 10	19.5	Black	550.4	946
85192852	4 G 16	24.7	Black	819.1	1,189
85192853	4 G 25	28.7	Black	1,165.0	1,692
85192854	4 G 35	32.0	Black	1,683.0	2,700
85192855	4 G 50	39.7	Black	2,342.0	3,362
85192856	4 G 70	44.8	Black	3,229.0	4,490
85192857	4 G 95	50.0	Black	4,010.0	5,540
85192858	4 G 120	55.4	Black	5,012.0	6,960

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ÖLFLEX® TRAY II

ÖLFLEX® Control Cable 0.6/1 kV, UL TC-ER 600V MTW AWM WET OIL/ SUN RES CSA TRAY

Info

- Torsion resistant for drip loops
- Broad application range (NFPA 70/NEC), NFPA 79 compliance
- Outdoor use in USA

Benefits

- Cost-saving, fast installation omitting protection systems
- Many certifications/ use types
- 75 °C WET Rating + Sunlight Resistant Rating: Outdoor use in the USA

Application range

- Industrial machinery, plant engineering in the USA
- Unprotected 600V operation on cable tray in the USA, incl. 6 ft. Exposed Run laying sections for version with at least 3 conductors
- Compliant with Tool machines: (UL) MTW
- Outdoor use and Direct Burial in the USA, per UL 1277
- USA Wind Turbine Tray Cable (WTTC) for Wind Turbine Generators

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL 75°C WET rating
- UV resistant (SUN RES), Ozone resistant
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / Approvals

- USA: (UL) TC-ER [E171371], (UL) MTW [E155920], (UL) WTTC [E323700], Submersible Pump (14 - 2 AWG), (UL) PLTC-ER (18 - 12 AWG) [E216027], (UL) ITC-ER (18 - 12 AWG) [E196134], (UL) DP-1 [E233406], UL AWM (18 - 2 AWG) [E100338]
- UL OIL RES I/ II, 75°C WET, 90°C DRY, SUN RES, DIR BUR, NEC/NFPA 70, NFPA 79
- CAN: c(UL) CIC/ TC 600V FT4 (< 250 kcmil) [E171371], CSA AWM I/II A/B FT1

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC+nylon sheath (PA skin)
- Outer jacket: Specially formulated thermoplastic polymer
- Color of the outer jacket: Black

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine copper wire strands

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/15 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
IEC: U_0/U = 600/1000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² per conductor	AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY II					
221803	3 G 1.0		7.5	28.8	85
221804	4 G 1.0		8.1	38.4	98
221805	5 G 1.0		8.8	48	115
221807	7 G 1.0		9.5	67	149
221812	12 G 1.0		12.1	115	255
221818	18 G 1.0		14.9	173	365
221825	25 G 1.0		16.9	240	479
221603	3 G 1.5		8.3	43	103
221604	4 G 1.5		8.9	58	124
221605	5 G 1.5		9.7	72	146
221607	7 G 1.5		10.5	101	189
221609	9 G 1.5		12.1	130	255
221612	12 G 1.5		14.4	173	328
221618	18 G 1.5		16.6	259	431
221625	25 G 1.5		18.8	360	592
221641	41 G 1.5		25.0	591	931
221403	3 G 2.5		9.2	72	130
221404	4 G 2.5		10.0	96	159
221405	5 G 2.5		10.8	120	224
221407	7 G 2.5		11.8	168	252
221412	12 G 2.5		16.2	288	459
221418	18 G 2.5		18.7	432	654
221425	25 G 2.5		22.5	600	874
221204	4 G 4.0		11.7	153	226
221205	5 G 4.0		12.8	192	279
221004	4 G 6.0		14.7	231	394
221005	5 G 6.0		16.0	288	472
221007	7 G 6.0		17.4	405	661
220804	4 G 10.0		17.9	384	615
220805	5 G 10.0		19.6	480.6	771
220604	4 G 16.0		22.8	615	864
220605	5 G 16.0		24.9	768	1080
220404	4 G	4	27.8	960	1418
220204	4 G	2	32.3	1344	2077

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ÖLFLEX® TRAY II CY

ÖLFLEX® Control Cable 0.6/1 kV, UL TC-ER 600V AWM WET OIL/ SUN RES TRAY Screened

Info

- Outdoor use in USA
- Broad application range (NFPA 70/NEC), NFPA 79 compliance
- EMC/Screened

Benefits

- Many certifications/ use types
- Cost-saving, fast installation omitting protection systems
- 75 °C WET Rating + Sunlight Resistant Rating: Outdoor use in the USA
- Electromagnetic field screening

Application range

- Industrial machinery, plant engineering in the USA
- Unprotected 600V operation on cable tray in the USA, incl. 6 ft. Exposed Run laying sections for version with at least 3 conductors
- Compliant with Tool machines: (UL) MTW
- Outdoor use and Direct Burial in the USA, per UL 1277
- USA Wind Turbine Tray Cable (WTTC) for Wind Turbine Generators

Product features

- Flame-retardant according to CSA FT4 UL Vertical-Tray Flame Test
- Oil-resistant according to UL OIL RES I & II
- Water-resistant, UL 75°C WET rating
- UV resistant (SUN RES), Ozone resistant
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)

Norm references / Approvals

- USA: (UL) TC-ER [E171371], (UL) MTW [E155920], (UL) WTTC [E323700], Submersible Pump (14 - 2 AWG), (UL) PLTC-ER (18 - 12 AWG) [E216027], (UL) ITC-ER (18 - 12 AWG) [E196134], (UL) DP-1 [E233406], UL AWM (18 - 2 AWG) [E100338]
- UL OIL RES I/ II, 75°C WET, 90°C DRY, SUN RES, DIR BUR, NEC/NFPA 70, NFPA 79
- CAN: c(UL) CIC/ TC 600V FT4 (< 250 kcmil) [E171371], CSA AWM I/II A/B FT1

Product Make-up

- Fine-wire strand made of bare copper wires
- Insulation: PVC+nylon sheath (PA skin)
- Aluminum-coated foil
- Tinned-copper braiding
- Outer jacket: Specially formulated thermoplastic polymer
- Color of the outer jacket: Black

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000104
ETIM 5.0/6.0 Class-Description: Control cable

Core identification code
Black with white numbers

Conductor stranding
Fine copper wire strands

Torsion movement in WTG
TW-0 & TW-2, refer to Appendix T0

Minimum bending radius
Static/Occ. moved: 5/20 x OD*

Nominal voltage
UL/CSA: 600 V (TC, MTW, CIC), WTTC 1000 V
UL/CSA: 1000 V (AWM)
IEC: U_0/U = 600/1000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-40°C (static)/ -25°C (occ. moved) to +90°C (AWM: +105°C)

Article number	Number of cores and mm² per conductor	AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY II CY					
2218030	3 G 1.0		8.2	35.1	119
2218040	4 G 1.0		8.8	55.2	137
2218050	5 G 1.0		9.4	65.8	149
2218070	7 G 1.0		10.1	86.9	193
2218120	12 G 1.0		12.9	149.3	330
2218180	18 G 1.0		15.7	214.2	438
2218250	25 G 1.0		17.7	354.2	574
2216030	3 G 1.5		8.9	59.8	144
2216040	4 G 1.5		9.6	74.5	173
2216050	5 G 1.5		10.3	93.5	189
2216070	7 G 1.5		11.3	130.5	246
2216120	12 G 1.5		15.1	213.8	426
2216180	18 G 1.5		17.3	312.4	515
2216250	25 G 1.5		19.6	415.6	708
2214030	3 G 2.5		9.8	91.2	180
2214040	4 G 2.5		10.7	125.7	223
2214050	5 G 2.5		11.6	150.1	268
2214070	7 G 2.5		12.5	201.2	327
2214120	12 G 2.5		16.9	333.6	595
2214180	18 G 2.5		19.5	487.6	784
2214250	25 G 2.5		23.3	685.1	1048
2212040	4 G 4.0		12.5	186.4	315
2212070	7 G 4.0		15.5	310.2	499
2210040	4 G 6.0		15.5	271.7	552
2208040	4 G 10.0		18.7	438.6	857
2206040	4 G 16.0		23.3	699	1208
2204040	4 G	4	28.6	1296.8	1982
2202040	4 G	2	33.2	1899.5	2903

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ÖLFLEX® TRAY 600 SC

Flexible single core cable with UL certificate

Info

- Torsion resistant for conductor ≤16mm²
- Highly flexible at cold temperatures
- Ozone resistant, salty Spray resistant
- Improved flame-retardant
- UL 2277 certified cable

Benefits

- High flexible, easy handling and installation
- Wide application range due to excellent product features
- Torsion resistant with improved fire characteristics
- UL 90°C WET Rating + Sunlight resistant rating: Outdoor use in the USA

Application range

- Plant engineering, Industrial machinery, heating and air-conditioning systems, stage applications
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Wind Turbine Generators in USA
- Motor power supply flexible cable
- Outdoor use

Product features

- Flame retardant: UL FT4
  UL Vertical-Tray Flame Test
- Oil-resistant: UL 1277 OIL RES I
- UV resistant: UL 1277
- UL 90°C wet rating
- Ozone resistant: IEC 60811-403
- Salty spray resistant: GB/T 2423.17
- Torsion resistant: GB/T 29631

Norm references / Approvals

- UL 2277 Flexible Motor Supply Cable [E525379]
- UL 1277, UL 83

Product Make-up

- Strands of bare copper wires
- Special PVC insulation, based on UL 83 THW-2
- Special PVC outer sheath, black (Similar RAL 9005)

Technical data

Core identification code
Black, other colors are available upon request

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Torsion movement in WTG
≤16 mm²: -40°C, ±144°/m, 2000 cycles

Minimum bending radius
Occasional flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
(UL) WTTC： 1000 V
IEC U_0/U： 600/1000 V

Test voltage
4000 V

Temperature range
Occasional flexing:
-40°C to +90°C (UL: +105°C)
Fixed installation:
-40°C to +90°C (UL: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Insulation color	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY 600 SC					
83011070301	1.5	5.5	black	14.4	45
83011070401	2.5	5.9	black	24.0	58
83011070501	4	6.5	black	38.4	77
83011070601	6	7.1	black	57.6	102
83011070701	10	9.0	black	96.0	163
83011070801	16	10.7	black	153.6	245
83011071101	25	12.2	black	240.0	350
83011071201	35	14.0	black	336.0	487
83011071301	50	16.8	black	480.0	700
83011071401	70	19.4	black	672.0	945
83011071501	95	21.9	black	912.0	1,230
83011071601	120	24.3	black	1,152	1,570
83011071701	150	26.4	black	1,440	1,890
83011071801	185	28.0	black	1,776	2,265
83011072101	240	31.5	black	2,304	2,900

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ÖLFLEX® TRAY 600 SC CY

Screened flexible single core cable with UL certificate

Info

- Torsion resistant for conductor ≤16mm²
- Highly flexible at cold temperatures
- Ozone resistant, salty Spray resistant
- Improved flame-retardant
- UL 2277 certified cable

Benefits

- High flexible, easy handling and installation
- Wide application range due to excellent product features
- Torsion resistant with improved fire characteristics
- UL 90°C WET Rating + Sunlight resistant rating: Outdoor use in the USA
- EMC-compliant

Application range

- Plant engineering, Industrial machinery, heating and air-conditioning systems, stage applications
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Wind Turbine Generators in USA
- Motor power supply flexible cable
- Outdoor use
- In EMC-sensitive environments (electromagnetic compatibility)

Product features

- Flame retardant: UL FT4 UL Vertical-Tray Flame Test
- Oil-resistant: UL 1277 OIL RES I
- UV resistant: UL 1277
- UL 90°C wet rating
- Ozone resistant: IEC 60811-403
- Salty spray resistant: GB/T 2423.17
- Electromagnetic compatibility

Norm references / Approvals

- UL 2277 Flexible Motor Supply Cable [E525379]
- UL 1277, UL 83

Product Make-up

- Strands of bare copper wires
- Special PVC insulation, based on UL 83 THW-2
- Screened by tinned copper wire braiding
- Special PVC outer sheath, black (Similar RAL 9005)

Technical data

Core identification code
Black, other colors are available upon request

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Torsion movement in WTG
≤16 mm²: -40°C, ±144°/m, 2000 cycles

Minimum bending radius
Occasional flexing: 10 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
(UL) WTTC： 1000 V
IEC U_0/U： 600/1000 V

Test voltage
4000 V

Temperature range
Occasional flexing:
-40°C to +90°C (UL: +105°C)
Fixed installation:
-40°C to +90°C (UL: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Insulation color	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY 600 SC CY					
83011073301	1.5	6.0	black	40.5	75
83011073401	2.5	6.4	black	52.5	88
83011073501	4	7.1	black	63.3	107
83011073601	6	7.6	black	82.9	132
83011073701	10	9.5	black	127.0	202
83011073801	16	11.2	black	176.8	267
83011074101	25	12.8	black	272.0	396
83011074201	35	14.7	black	391.5	535
83011074301	50	17.6	black	556.7	780
83011074401	70	22.0	black	799.2	1,160
83011074501	95	22.8	black	1,017	1,432
83011074601	120	25.4	black	1,278	1,720
83011074701	150	27.5	black	1,570	2,055
83011074801	185	29.1	black	1,914	2,544
83011075101	240	32.6	black	2,494	3,100

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ÖLFLEX® TRAY 600

Flexible multi-core cable with UL certificate

Benefits

- High flexible, easy handling and installation
- Wide application range due to excellent product features
- Torsion resistant with improved fire characteristics
- UL 90°C WET Rating + Sunlight resistant rating: Outdoor use in the USA

Application range

- Plant engineering, Industrial machinery, heating and air-conditioning systems, stage applications
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Wind Turbine Generators in USA
- Outdoor use

Product features

- Flame retardant: UL FT4 UL Vertical-Tray Flame Test
- Oil-resistant: UL 1277 OIL RES I
- UV resistant: UL 1277
- UL 90°C wet rating
- Ozone resistant: IEC 60811-403
- Salty spray resistant: GB/T 2423.17
- Torsion resistant: GB/T 29631

Norm references / Approvals

- UL 1277, UL 83
- 0.5mm²-0.75mm²：UL 2277 Flexible Motor Supply Cable Certificate [E525379]
- ≥1mm²: UL 2277 Wind Turbine Tray Cable (WTTC) Certificate [E519356]

Product Make-up

- Strands of bare copper wires
- Special PVC insulation, based on UL 83 THW-2
- Cores twisted in layers
- Special PVC outer sheath, black (Similar RAL 9005)

Info

- Torsion resistant for conductor ≤16mm²
- Highly flexible at cold temperatures
- Ozone resistant, salty Spray resistant
- Improved flame-retardant
- UL 2277 certified cable

Technical data

Core identification code
Black, other colors are available upon request

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Torsion movement in WTG
≤16 mm²: -40°C, ±144°/m, 2000 cycles

Minimum bending radius
Occasional flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
(UL) WTTC： 1000 V
IEC U_0/U： 600/1000 V

Test voltage
4000 V

Temperature range
Occasional flexing:
-40°C to +90°C (UL: +105°C)
Fixed installation:
-40°C to +90°C (UL: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY 600				
83011051702	2 X 0.5	7.3	9.6	69
83011050003	3 G 0.5	7.7	14.4	79
83011050004	4 G 0.5	8.3	19.2	93
83011050005	5 G 0.5	9.0	24.0	109
83011050007	7 G 0.5	9.7	33.6	134
83011050012	12 G 0.5	12.6	57.6	211
83011050018	18 G 0.5	15.3	86.4	316
83011050025	25 G 0.5	17.7	120.0	418
83011052702	2 X 0.75	7.7	14.4	80
83011050103	3 G 0.75	8.1	21.6	92
83011050104	4 G 0.75	8.8	28.8	110
83011050105	5 G 0.75	9.5	36.0	129
83011050107	7 G 0.75	10.3	50.4	161
83011050112	12 G 0.75	14.1	86.4	279
83011050118	18 G 0.75	16.3	129.6	382
83011050125	25 G 0.75	18.9	180.0	508
83011053702	2 X 1	8.0	19.2	90
83011050203	3 G 1	8.4	28.8	105
83011050204	4 G 1	9.2	38.4	125
83011050205	5 G 1	9.9	48.0	145
83011050207	7 G 1	10.8	67.2	185
83011050212	12 G 1	14.7	115.2	320
83011050219	19 G 1	18.0	182.4	480
83011050225	25 G 1	19.8	240.0	588
83011054702	2 x 1.5	8.6	28.8	106
83011050303	3 G 1.5	9.1	43.2	125
83011050304	4 G 1.5	9.9	57.6	155
83011050305	5 G 1.5	10.7	72.0	180
83011050307	7 G 1.5	11.7	100.8	226
83011050312	12 G 1.5	16.0	172.8	392
83011050319	19 G 1.5	19.6	273.6	595
83011050325	25 G 1.5	22.7	360.0	785
83011055702	2 X 2.5	9.4	48.0	140
83011050403	3 G 2.5	9.9	72.0	168
83011050404	4 G 2.5	10.8	96.0	207
83011050405	5 G 2.5	11.9	120.0	247
83011050407	7 G 2.5	12.9	168.0	318
83011050412	12 G 2.5	17.6	288.0	550

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
83011050419	19 G 2.5	22.8	456.0	892
83011050425	25 G 2.5	25.2	600.0	1,105
83011056702	2 X 4	10.7	76.8	190
83011050503	3 G 4	11.3	115.2	235
83011050504	4 G 4	12.4	153.6	288
83011050505	5 G 4	14.3	192.0	372
83011050506	6 G 4	15.5	230.4	454
83011050507	7 G 4	15.5	268.8	477
83011050512	12 G 4	20.3	460.8	775
83011057702	2 X 6	11.8	153.6	250
83011050603	3 G 6	12.6	172.8	315
83011050604	4 G 6	14.4	230.4	416
83011050605	5 G 6	15.8	288.0	512
83011050612	12 G 6	23.8	691.2	1,120
83011050703	3 G 10	17.2	288.0	553
83011050704	4 G 10	18.9	384.0	688
83011050705	5 G 10	21.9	480.0	901
83011050713	3 G 16	21.9	460.8	895
83011050714	4 G 16	24.0	614.4	1,123
83011050715	5 G 16	26.5	768.0	1,371
83011050717	7 G 16	29.3	1,075.2	1,770
83011050723	3 G 25	24.7	720.0	1,245
83011050724	4 G 25	27.3	960.0	1,581
83011050725	5 G 25	30.6	1,200.0	1,972
83011050727	7 G 25	33.8	1,680.0	2,557
83011050733	3 G 35	28.1	1,008.5	1,671
83011050734	4 G 35	31.3	1,344.0	2,149
83011050735	5 G 35	35.1	1,680.0	2,677
83011050736	6 G 35	39.0	2,016.0	3,265
83011050737	7 G 35	39.0	2,352.0	3,499
83011050743	3 G 50	34.7	1,440.0	2,498
83011050744	4 G 50	38.9	1,920.0	3,220
83011050745	5 G 50	43.6	2,400.0	4,021
83011050753	3 G 70	39.9	2,016.0	3,318
83011050754	4 G 70	44.6	2,688.0	4,268
83011050755	5 G 70	50.0	3,360.0	5,322
83011050763	3 G 95	43.9	2,736.0	4,253
83011050764	4 G 95	49.2	3,648.0	5,505
83011050765	5 G 95	55.1	4,560.0	6,855

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- Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRAY 600 CY

Screened flexible multi-core cable with UL certificate

Info

- Torsion resistant for conductor ≤16mm²
- Highly flexible at cold temperatures
- Ozone resistant, salty Spray resistant
- Improved flame-retardant
- UL 2277 certified cable

Benefits

- High flexible, easy handling and installation
- Wide application range due to excellent product features
- Torsion resistant with improved fire characteristics
- UL 90°C WET Rating + Sunlight resistant rating: Outdoor use in the USA
- EMC-compliant

Application range

- Plant engineering, Industrial machinery, heating and air-conditioning systems, stage applications
- Suitable for torsional applications which are typical for the loop in wind turbine generators (WTG)
- Wind Turbine Generators in USA
- Outdoor use
- In EMC-sensitive environments (electromagnetic compatibility)

Norm references / Approvals

- UL 1277, UL 83
- 0.5mm² - 0.75mm² : UL 2277 Flexible Motor Supply Cable Certificate [E525379]
- ≥1mm² : UL 2277 Wind Turbine Tray Cable (WTTC) Certificate [E519356]

Product features

- Flame retardant: UL FT4 UL Vertical-Tray Flame Test
- Oil-resistant: UL 1277 OIL RES I
- UV resistant: UL 1277
- UL 90°C wet rating
- Ozone resistant: IEC 60811-403
- Salty spray resistant: GB/T 2423.17
- Torsion resistant: GB/T 29631
- High degree of screening low transfer impedance(max.250Ω/km at 30 MHz)

Product Make-up

- Strands of bare copper wires
- Special PVC insulation, based on UL 83 THW-2
- ≤ 10mm² : Aluminum-coated foil wrapping on the surface of stranded insulated cores
- ≥16mm² : PVC inner sheath with aluminum-coated foil wrapping on the surface
- Tinned-copper wire braiding
- Special PVC outer sheath, black (Similar RAL 9005)

Technical data

Core identification code
Black with white numbers acc. to VDE 0293-334

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Torsion movement in WTG
≤16 mm² : -40°C, ±144°/m, 2000 cycles

Minimum bending radius
Occasional flexing: 20 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
(UL) WTTC : 1000 V
IEC U_0/U : 600/1000 V

Test voltage
4000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
Occasional flexing:
-40°C to +90°C (UL: +105°C)
Fixed installation:
-40°C to +90°C (UL: +105°C)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY 600 CY				
83011060003	3 G 0.5	8.4	29.7	87
83011060004	4 G 0.5	9.0	37.2	104
83011060005	5 G 0.5	9.7	44.1	122
83011060007	7 G 0.5	10.5	56.0	149
83011060012	12 G 0.5	14.3	104.0	269
83011060018	18 G 0.5	16.4	142.5	360
83011060025	25 G 0.5	18.9	199.5	475
83011062702	2 X 0.75	8.4	28.3	81
83011060103	3 G 0.75	8.8	37.4	99
83011060104	4 G 0.75	9.5	47.3	121
83011060105	5 G 0.75	10.3	56.5	142
83011060107	7 G 0.75	11.2	77.6	180
83011060112	12 G 0.75	14.4	133.2	288
83011060118	18 G 0.75	17.5	197.9	440
83011060125	25 G 0.75	20.2	269.9	576
83011063702	2 X 1	8.7	38.2	100
83011060203	3 G 1	9.1	47.7	115
83011060204	4 G 1	9.9	56.9	135
83011060205	5 G 1	10.7	72.3	160
83011060207	7 G 1	11.6	95.0	205
83011060212	12 G 1	15.7	162.0	355
83011060219	19 G 1	19.2	267.4	556
83011060225	25 G 1	21.2	337.9	666
83011064702	2 X 1.5	9.3	43.8	105
83011060303	3 G 1.5	9.6	64.4	132
83011060304	4 G 1.5	10.6	80.5	161
83011060305	5 G 1.5	11.6	97.2	198
83011060307	7 G 1.5	12.6	134.5	256
83011060312	12 G 1.5	17.1	235.5	445
83011060318	18 G 1.5	19.8	338.9	650
83011060319	19 G 1.5	20.9	358.9	672
83011060325	25 G 1.5	24.2	466.1	895

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
83011065702	2 X 2.5	10.1	63.9	133
83011060403	3 G 2.5	10.6	97.6	172
83011060404	4 G 2.5	11.7	124.6	220
83011060405	5 G 2.5	12.8	158.6	275
83011060407	7 G 2.5	14.5	222.2	372
83011060412	12 G 2.5	18.8	365.2	610
83011060419	19 G 2.5	24.3	564.2	1,010
83011060425	25 G 2.5	26.7	719.9	1,215
83011060503	3 G 4	12.2	153.2	240
83011060504	4 G 4	13.4	192.8	310
83011060505	5 G 4	15.2	246.2	400
83011060507	7 G 4	16.7	329.6	520
83011060512	12 G 4	22.7	533.0	886
83011067702	2 X 6	12.5	135.7	230
83011060603	3 G 6	14.0	227.6	350
83011060604	4 G 6	15.4	285.6	435
83011060605	5 G 6	16.9	349.4	550
83011060607	7 G 6	18.3	463.9	692
83011060612	12 G 6	25.2	810.8	1,215
83011060703	3 G 10	17.9	338.0	627
83011060704	4 G 10	19.8	451.5	786
83011060705	5 G 10	22.8	554.1	1,013
83011060707	7 G 10	24.8	758.7	1,275
83011060713	3 G 16	25.1	562.6	1,155
83011060714	4 G 16	27.6	757.6	1,453
83011060715	5 G 16	29.5	845.0	1,644
83011060717	7 G 16	33.0	1,193.3	2,145
83011060723	3 G 25	28.3	846.4	1,582
83011060724	4 G 25	31.2	1,090.3	1,972
83011060733	3 G 35	31.4	1,144.8	2,028
83011068753	3 X 70	41.6	2,241.5	3,665
83011060754	4 G 70	51.2	3,012.9	5,270
83011068763	3 X 95	50.5	2,956.7	5,190

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ÖLFLEX® TRAY 6111

LAPP KABEL POWER-CON 6111 TC MTW THHW 90C dry 75C wet 600V VW-1 SUN RES OIL RES I FT4/IEEE 1202 CE

Benefits

- Vertical-Tray Flame Resistance according to FT4/IEEE1202
- Talc free
- UL certificate Cable
- Rip cord (optional - easy to strip outer sheath)

Application range

- In wet or dry location
- Outdoor/Indoor
- As Power line of a machine (MTW)
- As Tray cable (TC)

Norm references / Approvals

- UL TC [E502498], UL MTW[E502499], UL THHW[E502494] (2.5mm², 14AWG)
- UL Oil RES I, 90°C (194°F) dry 75°C (167°F) wet, SUN RES

Product features

- Flame retardant according to UL 1685 FT4/IEEE1202(only flame)
- Flame retardant according to UL VW-1
- Oil resistance according to UL 1277
- UV resistance according to UL 1277

Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Specially formulated PVC
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

Info

- UL certificate cable for TC and MTW
- Tray cable
- Machine tool wire
- NFPA compliance for the machinery in the U.S.

Technical data

Core identification code
Black with white numbers

Conductor stranding
Fine wire strands of bare copper in accoring with IEC 60228, VDE 0295, class 5

Minimum bending radius
2AWG and smaller : 4 x outer diameter
1AWG and larger : 6 x outer diameter

Nominal voltage
600 V

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-25°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAY 6111				
85140000	2X1	8.31	19.2	68
85140001	3G1	8.8	28.8	86
85140002	4G1	9.5	38.4	106
85140003	5G1	10.3	48.0	126
85140004	7G1	11.2	67.2	162
85140005	9G1	14.7	86.4	265
85140006	12G1	15.3	115.2	284
85140007	18G1	17.8	172.8	397
85140008	25G1	22.1	240.0	577
85140009	2X1.5	8.3	28.8	81
85140010	3G1.5	9.4	43.2	105
85140011	4G1.5	10.2	57.6	130
85140012	5G1.5	11.1	72.0	156
85140013	7G1.5	12.1	100.8	203
85140014	8G1.5	14.8	115.2	287
85140015	9G1.5	15.8	129.6	327
85140016	12G1.5	16.5	172.8	356
85140017	16G1.5	18.2	230.4	452
85140018	18G1.5	19.2	259.2	502
85140019	25G1.5	23.9	360.0	725
85140020	34G1.5	26.5	489.6	941
85140023	2X2.5	9.8	48.0	105
85140024	3G2.5	10.4	72.0	139
85140025	4G2.5	11.3	96.0	175
85140026	5G2.5	12.3	120.0	211
85140027	7G2.5	14.2	168.0	302
85140028	9G2.5	17.6	216.0	439
85140029	12G2.5	18.4	288.0	486
85140030	18G2.5	22.5	432.0	740
85140031	25G2.5	26.6	600.0	995
85140049	2X4	10.9	76.8	141
85140032	3G4	11.5	115.2	190
85140033	4G4	12.6	153.6	241
85140034	5G4	14.6	192.0	318
85140035	7G4	15.9	268.8	419
85140050	2X6	12.0	115.2	183
85140036	3G6	12.7	172.8	251
85140037	4G6	14.8	230.4	346
85140038	5G6	16.1	288.0	421
85140039	7G6	17.5	403.2	559
85140051	2X10	18.0	192.0	367
85140048	3G10	19.1	288.0	502
85140040	4G10	22.0	384.0	688
85140041	5G10	24.1	480.0	838

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ÖLFLEX® 100 I

ISI marked PVC cable

Info

- ISI marked cable

Benefits

- Space-saving installation due to small cable diameter
- High electrical performance due to 3 kV test voltage

Application range

- Plant engineering and installation, Industrial machinery
- Power circuit for Air conditioning installations
- Main power circuit to individual apartments
- Dry or damp interiors under medium mechanical load conditions
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load

Product features

- Flame retardant: According to IEC 60332-1 / IS 10810-53

Norm references / Approvals

- IS:694:2010

Product Make-up

- Conductor : Bare copper wires of fine strands
- Insulation : PVC
- Outer Sheath:
  i) PVC
  ii) PVC FR-LSH

Technical data

Core identification code
Coloured

Conductor stranding
Bare copper, fine wire strand class 5 in acc. to IS 8130-1984

Minimum bending radius
Occasional fixing Installation: 15 x cable OD, Fixed installation: 4 X Cable OD

Nominal voltage
UM : 1100, Up to and including 1100 V in acc. to IS 694:2010

Temperature range
-15°C up to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 100 I					
38007034	2 X 0.5	6.0	grey	9.0	55
38007035	3 G 0.5	6.3	grey	14.0	64
38007036	4 G 0.5	6.8	grey	18.0	76
38007042	2 X 0.75	6.4	grey	13.0	65
38007043	3 G 0.75	6.7	grey	20.0	77
38007045	4 G 0.75	7.3	grey	26.0	92
38007053	2 X 1.0	6.7	grey	17.0	73
38007054	3 G 1.0	7.1	grey	26.0	87
38007055	4 G 1.0	7.7	grey	34.0	105
38007064	2 X 1.5	7.4	grey	25.0	90
38007065	3 G 1.5	7.8	grey	37.0	108
38007066	4 G 1.5	8.8	grey	50.0	137
38007067	5 X 1.5	9.6	grey	62.0	162
38007074	2 X 2.5	8.8	grey	42.0	133
38007075	3 G 2.5	9.3	grey	63.0	162
38007076	4 G 2.5	10.3	grey	84.0	198
38007077	5 X 2.5	11.3	grey	105.0	238
38007081	2 X 4	10.4	grey	69.0	195
38007082	3 G 4	11.1	grey	104.5	241
38007083	4 G 4	12.2	grey	138.0	297
38000997	5 X 4	13.5	grey	173.0	365
38007092	3 G 6	12.6	grey	158.0	336
38007093	4 G 6	14.0	grey	210.0	416
38007094	3 G 10	15.8	grey	260.0	542
38007095	4 G 10	17.7	grey	346.0	674
38007096	3 G 16	18.2	grey	407.0	754
38007097	4 G 16	20.3	grey	542.0	946
38001018	3 G 25	22.7	grey	670.0	1,189
38009040	4 G 25	25.3	grey	893.0	1,511
38007084	4 G 35	28.7	grey	1,181.0	1,935
38001023	4 G 50	33.5	grey	1,659.0	2,748
ÖLFLEX® 100 I FR-LSH					
380820315	3 G 1.0	7.2	grey	26.0	90
380830315	3 G 1.5	7.8	grey	37.0	111
380830415	4 G 1.5	8.8	grey	50.0	141
380840315	3 G 2.5	9.6	grey	63.0	166
380840415	4 G 2.5	10.5	grey	84.0	203
380850315	3 G 4	11.1	grey	104.0	247
380850415	4 G 4	12.2	grey	138.0	303

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ÖLFLEX® 100 I CY

Info

- EMC - Compliant

Benefits

- EMC Compliant
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering and installation, Industrial machinery
- Power circuit for Air conditioning installations
- Main power circuit to individual apartments
- Fixed Installation
- For fixed installation as well as occasional flexing at free, non-continuously recurring movement without tensile load

Product features

- Flame retardant: According to IEC 60332-1

Product Make-up

- Conductor : Bare copper wires of fine strands
- Insulation : PVC
- Inner Sheath : PVC
- Copper braid with approx. 65% coverage
- Outer Sheath:
  i) PVC
  ii) PVC FR-LSH

Technical data

Core identification code
Coloured

Conductor stranding
Bare copper, fine wire strand class 5 in acc. to IS 8130-1984

Minimum bending radius
Occasional fixing Installation: 20 x OD, Fixed installation: 6 X Cable OD

Nominal voltage
UM : 1100, Up to and including 1100 V

Temperature range
-15°C up to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 100 I CY					
380400415	4 G 0.5	9.2	grey	49.0	141
380420205	2 X 1.0	8.9	grey	47.0	131
380420415	4 G 1.0	10.2	grey	67.0	175
380430205	2 X 1.5	9.6	grey	56.0	157
380430315	3 G 1.5	10.2	grey	70.0	177
380430305	3 X 1.5	10.2	grey	70.0	177
380430415	4 G 1.5	11.1	grey	86.0	214
380440315	3 G 2.5	12.0	grey	100.0	242
380440305	3 X 2.5	12.0	grey	100.0	242
380440415	4 G 2.5	13.1	grey	126.0	300
380440405	4 X 2.5	13.1	grey	126.0	300
380460415	4 G 6	17.2	grey	286.0	572
380461415	4 G 10	21.5	grey	469.0	916
380464415	4 G 35	33.8	grey	1,384.0	2,395
380465315	3 G 50	35.4	grey	1,465.0	2,658
380465415	4 G 50	39.4	grey	1,900.0	3,305
380410410	4 G 0.75	13.1	transparent	58.0	154
380430310	3 G 1.5	17.2	transparent	70.0	172
380440200	2 X 2.5	11.3	transparent	78.0	204
380440310	3 G 2.5	12.0	transparent	100.0	235
380440300	3 X 2.5	12.0	transparent	100.0	235
380440410	4 G 2.5	13.1	transparent	126.0	291
380440400	4 X 2.5	13.1	transparent	126.0	291
380461410	4 G 10	21.5	transparent	469.0	889
380463410	4 G 25	30.0	transparent	1,079.0	1,860
380465410	4 G 50	39.4	transparent	1,900.0	3,225
ÖLFLEX® 100 I CY UVAR					
380400225	2 X 0.5	8.1	grey	35.0	107
380420225	2 X 1.0	8.9	grey	47.0	131
380420325	3 X 1.0	9.4	grey	57.0	152
380420435	4 G 1.0	10.2	grey	67.0	175

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 100 I CY FR-LSH					
380630315	3 G 1.5	10.2	grey	70.0	180
380630305	3 X 1.5	10.2	grey	70.0	180
380630415	4 G 1.5	11.1	grey	86.0	218
380630405	4 X 1.5	11.1	grey	86.0	218
380640205	2 X 2.5	11.3	grey	78.0	214
380640315	3 G 2.5	12.0	grey	100.0	246
380640305	3 X 2.5	12.0	grey	100.0	246
380640415	4 G 2.5	13.1	grey	126.0	305
380640405	4 X 2.5	13.1	grey	126.0	305
380640515	5 G 2.5	14.6	grey	168.0	380
380640505	5 X 2.5	14.6	grey	168.0	380
380650315	3 G 4	14.1	grey	168.0	382
380650305	3 X 4	14.1	grey	168.0	382
380650415	4 G 4	15.4	grey	211.0	452
380650405	4 X 4	15.4	grey	211.0	452
380650515	5 G 4	16.9	grey	249.0	533
380660305	3 X 6	15.6	grey	230.0	489
380660415	4 G 6	17.2	grey	286.0	579
380660405	4 X 6	17.2	grey	286.0	579
380661415	4 G 10	21.5	grey	469.0	928
380661405	4 X 10	21.5	grey	469.0	928
380662415	4 G 16	24.5	grey	689.0	1,265
380662405	4 X 16	24.5	grey	689.0	1,265
380663415	4 G 25	30.0	grey	1,079.0	1,937
380663405	4 X 25	30.0	grey	1,079.0	1,937
380664415	4 G 35	33.8	grey	1,384.0	2,422

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ÖLFLEX® 100 I SY

Colour coded PVC power and control cable with steel wired braiding

Info

- Steel wire Braiding for extra mechanical protection

Benefits

- Extra mechanical protection due to braided steel wire
- High electrical performance due to 4 kV test voltage

Application range

- Plant engineering and installation, Industrial machinery
- Power circuit for Air conditioning installations
- Main power circuit to individual apartments
- Area with high mechanical stress
- Fixed installation

Product features

- Flame retardant: According to IEC 60332-1

Product Make-up

- Conductor : Bare copper wires of fine strands
- Insulation : PVC
- Inner Sheath : PVC
- Steel wire braid
- Outer Sheath:
  i) PVC
  ii) PVC FR-LSH

Technical data

Core identification code
Coloured

Conductor stranding
Bare copper, fine wire strand class 5 in acc. to IS 8130-1984

Minimum bending radius
Occasional fixing Installation: 20 x OD, Fixed installation: 6 X Cable OD

Nominal voltage
UM : 1100, Up to and including 1100 V

Temperature range
-15°C up to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 100 I SY					
380130310	3 G 1.5	10.9	transparent	37.0	181
380160300	3 X 6	16.1	transparent	158.0	458
ÖLFLEX® 100 I SY UVAR					
380140435	4 G 2.5	13.8	grey	84.0	313
ÖLFLEX® 100 I SY FR-LSH					
380340415	4 G 2.5	13.8	grey	84.0	318

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H05RR-F / 60245 IEC 53(YZ) / YZ

Rubber cable for light mechanical stress and handheld devices used in households, kitchens, offices

Info

- CCC and VDE dual certified

Application range

- Hand-held and power supply devices
- For dry and damp interiors, only temporary use outdoors; not for industrial/commercial or agricultural facilities; not suitable for supplying industrial power tools
- Light and sound applications
- Light duty rubber-sheath cable
- For light workshop devices with light stress

Product features

- Flame-retardant in acc. to IEC 60332-1-2

Norm references / Approvals

- <VDE> cable type certification in acc. to EN 50525-2-21
- CCC cable type certification in acc. to GB/T 5013.4 or JB/T 8735.2
- Complies with IEC 60245.4

Product Make-up

- Fine strands of bare copper wires
- Rubber type EI4 core insulation
- Rubber type EM3 outer sheath, black

Technical data

Core identification code
acc. to VDE 0293-308

Conductor stranding
Fine wire acc. to IEC 60228 Cl. 5

Minimum bending radius
6 x cable diameter

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-25°C up to +60°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
H05RR-F / 60245 IEC 53(YZ), acc. to EN 50525-2-21 and GB/T 5013.4, VDE and CCC certified				
393808120	2 X 0.75	5.7 - 7.4	14.4	61
393808130	3 G 0.75	6.2 – 8.1	21.6	75
393808140	4 G 0.75	6.8 – 8.8	28.8	91
393808150	5 G 0.75	7.6 – 9.9	36.0	110
393808121	2 X 1.0	6.1 – 8.0	19.2	73
393808131	3 G 1.0	6.5 – 8.5	28.8	86
393808141	4 G 1.0	7.1 – 9.3	38.4	105
393808151	5 G 1.0	8.0 – 10.3	48.0	128
393808122	2 X 1.5	7.6 – 9.8	28.8	110
393808132	3 G 1.5	8.0 – 10.4	43.2	130
393808142	4 G 1.5	9.0 – 11.6	57.6	165
393808152	5 G 1.5	9.8 – 12.7	72.0	190
393808123	2 X 2.5	9.0 – 11.6	48.0	160
393808133	3 G 2.5	9.6 – 12.4	72.0	190
393808143	4 G 2.5	10.7 – 13.8	96.0	235
393808153	5 G 2.5	11.9 – 15.3	120.0	285
H05RR-F / YZ, acc. to EN 50525-2-21 and JB/T 8735.2, VDE and CCC certified				
393808124	2 X 4	10.6 – 13.7	76.8	227
393808134	3 G 4	11.3 – 14.5	115.2	273
YZ, acc. to JB/T 8735.2, CCC certified, w/o CE marking				
393808144	4 G 4	12.7 – 16.2	153.6	342
393808154	5 G 4	14.1 – 17.9	192.0	418
393808125	2 X 6	11.8 – 15.1	115.2	293
393808135	3 G 6	12.6 – 16.1	172.8	360
393808145	4 G 6	14.0 – 17.9	230.4	449
393808155	5 G 6	15.7 - 20.0	288.0	562

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H05RN-F / 60245 IEC 57(YZW)

Rubber cable for handheld devices and chains of decorative lights

Info

- CCC and VDE dual certified

Application range

- For supplying devices in households, kitchens or offices under light mechanical stress; handheld inspection lamps
- For dry and damp interiors, as well as for limited outdoor use
- Medium duty rubber-sheath cable
- For lightweight workshop tools subject to medium loads

Product features

- Flame-retardant in acc. to IEC 60332-1-2
- Oil-resistant according to EN 60811-404

Norm references / Approvals

- <VDE> cable type certification in acc. to EN 50525-2-21
- CCC cable type certification in acc. to GB/T 5013.4
- Complies with IEC 60245.4

Product Make-up

- Fine strands of bare copper wires
- Rubber type EI4 core insulation
- Rubber type EM2 outer sheath, black

Technical data

Core identification code
acc. to VDE 0293-308

Conductor stranding
Fine wire acc. to IEC 60228 / VDE 0295 Cl. 5

Minimum bending radius
6 x cable diameter

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-25°C up to +60°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
H05RN-F / 60245 IEC 57(YZW), acc. to EN 50525-2-21 and GB/T 5013.4, VDE and CCC certified				
393808220	2 X 0.75	5.7 - 7.4	14.4	60
393808230	3 G 0.75	6.2 – 8.1	21.6	75
393808240	4 G 0.75	6.8 – 8.8	28.8	90
393808221	2 X 1.0	6.1 – 8.0	19.2	71
393808231	3 G 1.0	6.5 – 8.5	28.8	90
393808241	4 G 1.0	7.1 – 9.3	38.4	102
60245 IEC 57(YZW), acc. to GB/T 5013.4, CCC certified, w/o CE marking				
393808232	3 G 1.5	8.0 – 10.4	43.2	126
393808242	4 G 1.5	9.0 – 11.6	57.6	162
393808252	5 G 1.5	9.8 – 12.7	72.0	188
393808233	3 G 2.5	9.6 – 12.4	72.0	188
393808243	4 G 2.5	10.7 – 13.8	96.0	232
393808253	5 G 2.5	11.9 – 15.3	120.0	280

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H07RN-F / 60245 IEC 66(YCW) / YCW

Heavy standard construction

Application range

- Hand-held and power supply devices
- For dry and damp interiors, as well as for limited outdoor use
- Light and sound technology
- Heavy-duty rubber-sheath cable
- Medium mechanical stress Industrial, agricultural use

Product features

- Flame-retardant in acc. to IEC 60332-1-2
- Oil-resistant according to EN 60811-404

Norm references / Approvals

- <VDE> cable type certification in acc. to EN 50525-2-21
- CCC cable type certification in acc. to GB/T 5013.4 or JB/T 8735.2
- Complies with IEC 60245.4

Product Make-up

- Fine strands of bare copper wires
- Rubber type EI4 core insulation
- Rubber type EM2 outer sheath, black

Info

- CCC and VDE dual certified

Technical data

Core identification code
Up to 5 cores: colour-coded according to VDE0293-308
From 6 cores: black with white numbers

Conductor stranding
Fine wire acc. to IEC 60228 / VDE 0295 Cl. 5

Minimum bending radius
6 x cable diameter

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Protective conductor
G = with GN-YE protective conductor
X = without protective conductor

Temperature range
-25°C up to +60°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
H07RN-F/60245 IEC 66(YCW), acc. to EN 50525-2-21 and GB/T 5013.4, VDE and CCC certified				
393807120	2 X 1.0	7.7 – 10.0	19.2	100
393807140	3 G 1.0	8.3 – 10.7	28.8	125
393807160	4 G 1.0	9.2 – 11.9	38.4	155
393807180	5 G 1.0	10.2 – 13.1	48.0	180
393807100	1 X 1.5	5.7 – 7.1	14.4	57
393807121	2 X 1.5	8.5 – 11.0	28.8	130
393807141	3 G 1.5	9.2 – 11.9	43.2	155
393807161	4 G 1.5	10.2 – 13.1	57.6	195
393807181	5 G 1.5	11.2 – 14.4	72.0	230
393807101	1 X 2.5	6.3 – 7.9	24.0	75
393807122	2 X 2.5	10.2 – 13.1	48.0	185
393807142	3 G 2.5	10.9 – 14.0	72.0	225
393807162	4 G 2.5	12.1 – 15.5	96.0	275
393807182	5 G 2.5	13.3 – 17.0	120.0	330
393807102	1 X 4	7.2 – 9.0	38.4	104
393807123	2 X 4	11.8 – 15.1	76.8	270
393807143	3 G 4	12.7 – 16.2	115.2	310
393807163	4 G 4	14.0 – 17.9	153.6	385
393807183	5 G 4	15.6 – 19.9	192.0	473
393807103	1 X 6	7.9 – 9.8	57.6	131
393807124	2 X 6	13.1 – 16.8	115.2	350
393807144	3 G 6	14.1 – 18.0	172.8	410
393807164	4 G 6	15.7 – 20.0	230.4	515
393807184	5 G 6	17.5 – 22.2	288.0	635
393807104	1 X 10	9.5 – 11.9	96.0	202
393807125	2 X 10	17.7 – 22.6	192.0	565
393807145	3 G 10	19.1 – 24.2	288.0	710
393807165	4 G 10	20.9 - 26.5	384.0	900
393807185	5 G 10	22.9 – 29.1	480.0	1,095
393807105	1 X 16	10.8 – 13.4	153.6	280
393807126	2 X 16	20.2 – 25.7	307.2	765
393807146	3 G 16	21.8 – 27.6	460.8	975
393807166	4 G 16	23.8 – 30.1	614.4	1,255
393807186	5 G 16	26.4 – 33.3	768.0	1,545
393807106	1 X 25	12.7 – 15.8	240.0	390
393807127	2 X 25	24.3 – 30.7	480.0	1,080
393807147	3 G 25	26.1 – 33.0	720.0	1,375
393807167	4 G 25	28.9 – 36.6	960.0	1,810
393807187	5 G 25	32.0 – 40.4	1,200.0	2,220
393807107	1 X 35	14.3 – 17.9	336.0	510
393807148	3 G 35	29.3 – 37.1	1,008.0	1,780
393807168	4 G 35	32.5 – 41.1	1,344.0	2,345
393807108	1 X 50	16.5 – 20.6	480.0	705
393807149	3 G 50	34.1 – 42.9	1,440.0	2,460
393807169	4 G 50	37.7 – 47.5	1,920.0	3,220

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
393807109	1 X 70	18.6 – 23.3	672.0	940
393807150	3 G 70	38.4 – 48.3	2,016.0	3,260
393807170	4 G 70	42.7 – 54.0	2,688.0	4,320
393807110	1 X 95	20.8 – 26.0	912.0	1,205
393807151	3 G 95	43.3 – 54.0	2,736.0	4,200
393807171	4 G 95	48.4 – 61.0	3,648.0	5,545
393807111	1 X 120	22.8 – 28.6	1,152.0	1,480
393807172	4 G 120	53.0 – 66.0	4,608.0	6,740
393807112	1 X 150	25.2 – 31.4	1,440.0	1,817
393807173	4 G 150	58.0 – 73.0	5,760.0	8,290
393807113	1 X 185	27.6 – 34.4	1,776.0	2,200
393807114	1 X 240	30.6 – 38.3	2,304.0	2,810
393807115	1 X 300	33.5 – 41.9	2,880.0	3,490
H07RN-F / YCW, acc. to EN 50525-2-21 and JB/T 8735.2, VDE and CCC certified				
393807128	2 X 35	27.2 – 34.3	672.0	1,380
393807188	5 G 35	35.7 – 45.1	1,680.0	2,855
393807129	2 X 50	31.6 – 39.8	960.0	1,905
393807201	5 G 50	41.8 - 53.0	2,400.0	3,985
393807130	2 X 70	35.8 – 45.1	1,344.0	2,375
393807202	5 G 70	47.5 - 60.0	3,360.0	5,370
393807131	2 X 95	40.2 – 51.0	1,824.0	3,035
393807203	5 G 95	54.0 - 67.0	4,560.0	6,960
393807152	3 G 120	47.4 – 60.0	3,456.0	5,110
393807153	3 G 150	52.0 – 66.0	4,320.0	6,262
H07RN-F, acc. to EN 50525-2-21, VDE certified				
393807190	7 G 1.5	14.7 – 18.7	100.8	335
393807192	12 G 1.5	17.6 – 22.4	172.8	550
393807194	18 G 1.5	20.7 – 26.3	259.2	755
393807196	24 G 1.5	24.3 – 30.7	345.6	985
393807198	36 G 1.5	27.8 – 35.2	518.4	1,370
393807191	7 G 2.5	17.1 – 21.8	168.0	475
393807193	12 G 2.5	20.6 - 26.2	288.0	746
393807195	18 G 2.5	24.4 – 30.9	432.0	1,070
393807197	24 G 2.5	28.8 – 36.4	576.0	1,415
393807199	36 G 2.5	33.2 – 41.8	864.0	2,025
393807204	7 G 4	20.1 - 25.5	268.8	655
393807205	12 G 4	24.4 – 30.9	460.8	1,050
393807206	18 G 4	28.8 – 36.4	691.2	1,565
393807154	3 G 185	57.0 - 72.0	5,328.0	7,580
393807174	4 G 185	64.0 - 80.0	7,104.0	10,060
393807155	3 G 240	65.0 - 82.0	6,912.0	9,830
393807175	4 G 240	72.0 - 91.0	9,216.0	13,035
YCW, acc. to JB/T 8735.2, CCC certified, w/o CE marking				
393807207	5 G 120	59.0 - 74.0	5,760.0	8,335
393807208	5 G 150	65.0 - 81.0	7,200.0	10,240

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CE

ÖLFLEX® POWER N2D

Info

- Arc welding cable based on EN-50525-2-81

Application range

- For transmitting high currents from the electric welding device to the welding tool
- Can be used in dry or damp rooms

Product features

- Flame retardant acc. to IEC 60332-1-2

Product Make-up

- Fine strands of bare copper wires
- Stranding approximately corresponds to class 6 for up to 95 mm², and class 5 for sizes from 120 mm²
- Separator made of PET tape
- EPR compound covering, type EM5
- Covering colour in black or orange

Technical data

Minimum bending radius
12 x cable diameter

Nominal voltage
U_0/U: 100/100 V

Test voltage
1000 V

Temperature range
-25°C to +85°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Outer sheath colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER N2D					
3808080	10	8.5	black	96.0	171
3808081	10	8.5	orange	96.0	171
3808082	16	9.5	black	154.0	198
3808083	16	9.5	orange	154.0	198
3808084	25	11.2	black	240.0	305
3808085	25	11.2	orange	240.0	305
3808086	35	12.5	black	336.0	415
3808087	35	12.5	orange	336.0	415
3808088	50	14.3	black	480.0	555
3808089	50	14.3	orange	480.0	555
3808090	70	16.5	black	672.0	765
3808091	70	16.5	orange	672.0	765
3808092	90	18.5	black	912.0	1,010
3808093	90	18.5	orange	912.0	1,010
3808094	120	20.0	black	1,152.0	1,262
3808095	120	20.0	orange	1,152.0	1,262
3808096	150	22.5	black	1,440.0	1,610
3808097	150	22.5	orange	1,440.0	1,610
3808098	185	25.5	black	1,776.0	1,995
3808099	185	25.5	orange	1,776.0	1,995
3808100	240	38.5	black	2,304.0	2,520
3808101	240	38.5	orange	2,304.0	2,520

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ÖLFLEX® SERVO FD SSLC11Y

Screened encoder cable with PUR outer sheath for dynamic power chain application

Info

- For dynamic power chain application
- Used in encoder systems
- Halogen free cable

Benefits

- High-flexible for dynamic power chain application
- Suitable for use with encoders & resolvers
- Small diameter, optimised for weight and volume
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oilbased lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Wide temperature range for applications in harsh climatic environments
- Copper braiding screens the cable against electromagnetic interference

Application range

- Connecting cable between servo controller and encoder/resolver
- Connecting cable between servo controller and speed generators
- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines
- For indoor and outdoor use

Product features

- Flammability: UL/CSA: FT2
- Halogen-free
- Low-capacitance design
- Abrasion and notch-resistant
- Oil-resistant acc. to EN 60811-404

Norm references / Approvals

- UL AWM Style 20963 80°C 30V for USA (UL File No. : E481448)
- cRU for Canada：AWM I/II A/B 80°C 30V

Product Make-up

- Extra-fine wire strand made of tinned copper wires (class 6)
- Core insulation: polypropylene (PP)
- Cores (or core pairs) twisted in layers or bundles
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, green (RAL 6018)

Technical data

Core identification code
Details refer to datasheet

Insulation resistance
>10 MΩ x km

Conductor stranding
Extra-fine tinned copper wire according to VDE 0295, class 6/IEC 60228 class 6

Minimum bending radius
Dynamic using： 7.5 x outer diameter
Fixed installation: 4 x outer diameter

Nominal voltage
UL: 30 V

Test voltage
Core/Core: 500 V
Core/Screen: 500 V

Bending cycles & operation parameters
5 Mio cycles, with below conditions:
- Max. admissible vertical travel distance: 10m
- Min. bending radius: 7.5 x outer diameter

Temperature range
Dynamic using:
-40°C to +80°C (UL: +80°C)
Fixed installation:
-40°C to +80°C (UL: +80°C)

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index [kg/km]	Weight [kg/km]
ÖLFLEX® SERVO FD SSLC11Y				
83011370203	3 x (2 x 0.14) + 2 x (0.5)	9.3	70.0	120
83011370204	3 x (2 x 0.14) + (2 x 0.5)	8.6	68.0	142
83011370207	3 x (2 x 0.14) + 4 x 0.14 + 2 x 0.5	8.9	68.0	110
83011370208	3 x (2 x 0.14) + 4 x 0.14 + 2 x 0.5 + 4 x 0.22	9.6	80.0	130
83011370209	4 x 2 x 0.14 + 4 x 0.5 + (4 x 0.14)	8.3	88.0	134
83011370210	4 x 2 x 0.14 + 4 x 0.5	8.0	51.0	95
83011370212	5 x 2 x 0.14 + 2 x 0.5	7.8	51.0	101
83011370213	10 x 0.14 + 2 x 0.5	7.7	41.0	80
83011370300	1 x 2 x 0.18 + 5 x 0.5	6.7	57.3	92
83011370301	2 x 2 x 0.18 + 5 x 0.5	7.4	62.0	110
83011370302	5 x 2 x 0.18 + 6 x 0.5	9.4	79.2	113
83011370305	8 x 2 x 0.18	8.5	51.0	85
83011370501	2 x (2 x 0.25) + 2 x 0.5	7.5	46.0	98
83011370502	2 x 2 x 0.25 + 2 x 0.5	6.4	38.0	72
83011370506	5 x 2 x 0.25 + 2 x 0.5	8.5	69.0	113
83011370507	4 x 2 x 0.25 + 2 x 0.5	7.8	62.0	98
83011370508	4 x 2 x 0.25 + 2 x 1	8.2	63.0	109
83011370601	4 x 2 x 0.34 + 4 x 0.5	8.9	79.0	125

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ÖLFLEX® SERVO FD PSLC11Y

Technical data

Core identification code
Power cores: black cores with white marking: U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE
Single-pair: black cores with white number 5-6
Double-pair: black with white numbers 5-8
Triplet: black with white numbers 1-3

Mutual capacitance
- up to 6mm²: max. 150 pF/m
- 10mm² to 50mm²: max. 300 pF/m

Insulation resistance
>500 MΩ x km

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6

Minimum bending radius
Dynamic using: 10 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
IEC U_0/U: 600/1000 V
UL: 1000 V

Test voltage
Core/Core: 4000 V
Core/Screen: 3000 V

Protective conductor
G = with GN/YE protective conductor

Bending cycles & operation parameters
- Max. admissible acceleration:
  up to 6mm² : 5m/s²;
  10mm² to 50mm² : 2m/s²;
- Max. movement speed:
  up to 6mm² : 300m/min;
  10mm² to 50mm² : 200m/min;
- Max. admissible vertical travel distance: 20m
- Min. bending radius: 12 x outer diameter

Temperature range
Dynamic using:
-30°C to +80°C (UL: +80°C)
Fixed installation:
-40°C to +80°C (UL: +80°C)

Info

- For dynamic power chain application
- Low-capacitance design
- Halogen free cable

Benefits

- Suitable for use with servomotor product lines from drive manufacturers
- Resistant to contact with many mineral oil- based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- The outer sheath withstands high mechanical stresses, in particular abrasion and dragging. It is also cut proof and resists microbes and hydrolysis
- Wide temperature range for applications in harsh climatic environments
- Copper braiding screens the cable against electromagnetic interference

Application range

- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- For use in assembling & pick-and-place machinery
- Suitable for linear, automated movements
- Particularly in wet areas of machine tools and transfer lines
- Assembly lines, production lines, in all kinds of machines
- For indoor and outdoor use

Product features

- Flammability: IEC: 60332-1-2
- Halogen-free
- Abrasion and notch-resistant
- Oil-resistant acc. to EN 60811-404

Norm references / Approvals

- UL AWM Style 21223 80°C 1000V for USA (UL File No. : E481448)
- cRU for Canada: AWM I/II A/B 80°C 1000V

Product Make-up

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: polypropylene (PP)
- Power cores without or with one or two individually shielded control core pairs or triplet twisted together in short lay lengths
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO FD PSLC11Y				
83011360300	4 G 1.5	8.3	79.0	140
83011360400	4 G 2.5	9.7	129.0	197
83011360500	4 G 4	11.2	186.0	268
83011360600	4 G 6	13.3	296.0	397
83011360700	4 G 10	16.3	449.0	591
83011360800	4 G 16	19.8	716.0	955
83011361100	4 G 25	25.1	1,073.0	1,337
83011361200	4 G 35	28.0	1,480.0	1,769
83011361300	4 G 50	33.3	2,115.0	2,468
83011361400	4 G 70	41.0	2,995.0	3,892
83011360102	4G0.75+(2x0.5)	10.6	85.5	155
83011360202	4G1+(2x0.5)	11.0	97.4	164
83011360222	4G1+(2x1)	11.7	106.7	174
83011360252	4G1+2x(2x0.75)	12.4	138.4	208
83011360302	4G1.5+(2x0.5)	11.7	117.2	187
83011360312	4G1.5+(2x0.75)	11.0	123.5	188
83011360322	4G1.5+(2x1)	12.0	129.9	202
83011360332	4G1.5+(2x1.5)	11.0	135.0	261
83011360323	4G1.5+(3x1)	12.4	143.8	220
83011360374	4G1.5+(4x0.5)	12.1	132.0	217
83011360352	4G1.5+2x(2x0.75)	12.2	159.0	313
83011360395	4G1.5+(3x1)+(2x0.75)	13.1	178.6	262
83011360402	4G2.5+(2x0.5)	12.9	161.2	243
83011360422	4G2.5+(2x1)	12.8	169.2	260
83011360432	4G2.5+(2x1.5)	12.2	188.0	295
83011360423	4G2.5+(3x1)	13.6	204.3	294
83011360474	4G2.5+(4x0.5)	13.1	192.2	278
83011360462	4G2.5+2x(2x1)	13.7	207.0	362
83011360495	4G2.5+(3x1)+(2x0.75)	14.2	242.8	340

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
83011360522	4G4+(2x1)	14.2	238.9	359
83011360532	4G4+(2x1.5)	13.5	235.0	385
83011360523	4G4+(3x1)	15.0	250.0	361
83011360574	4G4+(3x1)	14.4	238.2	345
83011360562	4G4+2x(2x1)	15.7	274.0	466
83011360594	4G4+(2x1)+(2x1.5)	16.3	344.0	485
83011360595	4G4+(3x1.5)+(2x0.75)	16.5	334.7	462
83011360622	4G6+(2x1)	16.2	339.5	469
83011360632	4G6+(2x1.5)	15.5	329.0	486
83011360633	4G6+(3x1.5)	16.8	381.4	505
83011360674	4G6+(4x0.5)	15.8	344.9	460
83011360694	4G6+(2x1)+(2x1.5)	18.2	436.0	588
83011360695	4G6+(3x1.5)+(2x0.75)	17.7	441.2	561
83011360696	4G6+(3x1)+(2x1.5)	18.1	440.0	560
83011360722	4G10+(2x1)	18.5	530.1	689
83011360732	4G10+(2x1.5)	18.5	515.0	715
83011360733	4G10+(3x1.5)	18.5	568.9	722
83011360774	4G10+(4x0.5)	18.8	528.5	687
83011360794	4G10+(2x1)+(2x1.5)	22.2	610.0	819
83011360795	4G10+(3x1.5)+(2x0.75)	20.4	612.4	825
83011360796	4G16+(2x1)	22.7	786.7	985
83011360722	4G16+(2x1.5)	21.6	757.0	1,048
83011360732	4G16+2x(2x1.5)	25.0	801.0	1,135
83011360733	4G25+(2x1.5)	25.7	1,147.0	1,532
83011360872	4G25+2x(2x1.5)	28.8	1,187.0	1,559
83011361132	4G35+(2x1.5)	29.6	1,538.0	2,097
83011361172	4G35+2x(2x1.5)	31.0	1,588.0	2,160
83011361332	4G50+(2x1.5)	33.2	2,181.0	2,721
83011361382	4G50+2x(2x2.5)	36.5	2,557.0	2,920

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ÖLFLEX® SERVO PLCY

Screened, low capacitive servo cable with PVC outer sheath for static use

Info

- Fixed installation servo cable
- Low-capacitance design

Benefits

- Suitable for use with servomotor product lines from leading drive manufacturers
- Longer cable installation lengths thanks to low mutual capacitance cable design
- Space and weight-saving due to small cable diameters
- Copper braiding screens the cable against electromagnetic interference

Application range

- Connecting cable between servo controller and motor
- For static and occasionally flexible use
- Plant engineering
- Industrial machinery and machine tools
- Printing machines

Product features

- Low capacitance
- Flammability: UL/CSA: FT1
  IEC: 60332-1-2
- Oil-resistant acc. to EN 60811-404

Norm references / Approvals

- UL AWM Style 2570 80°C 1000V for USA (UL File No. : E481448)
- cRU for Canada：AWM I/II A/B 80°C 1000V

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: polypropylene(PP)
- Individual design depending on the item: Power cores with one or two individually shielded control core pairs, or with 3 control cores, twisted together in short lay lengths
- Tinned copper screen braiding
- PVC outer sheath, orange (RAL 2003)

Technical data

Core identification code
Power cores：black cores with white marking: U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE
Single-pair: black cores with white number 5-6
Double-pair: black with white numbers 5-8
Triplet: black with white numbers 1-3

Conductor stranding
Fine wire according to VDE 0295 Class 5 / IEC 60228 Class 5

Minimum bending radius
Occasional flexing：15 x outer diameter
Fixed installation: 6 x outer diameter

Nominal voltage
Power cores and control cores:
IEC U_0/U：600/1000 V
UL：1000V

Test voltage
Core/Core: 4000 V
Core/Screen: 3000 V

Protective conductor
G = with GN/YE protective conductor

Temperature range
Occasional flexing: - 5°C to + 80°C
Fixed installation: - 20°C to + 80°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO PLCY				
83011320300	4 G 1.5	8.3	83.0	130
83011320400	4 G 2.5	9.9	125.0	190
83011320500	4 G 4	11.7	191.0	273
83011320600	4 G 6	13.7	290.0	394
83011320700	4 G 10	16.7	452.0	581
83011320800	4 G 16	20.0	721.0	884
83011321100	4 G 25	24.9	1,100.0	1,348
83011321200	4 G 35	28.0	1,580.0	1,840
83011321300	4 G 50	33.6	2,151.0	2,645
83011320102	4G0.75+(2x0.5)	8.9	78.0	159
83011320194	4G0.75+2x(2x0.34)	10.5	99.0	163
83011320202	4G1+(2x0.5)	9.5	88.0	147
83011320222	4G1+(2x1)	10.2	107.0	204
83011320252	4G1+2x(2x0.75)	11.5	126.4	207
83011320302	4G1.5+(2x0.5)	10.5	111.0	180
83011320322	4G1.5+(2x1)	11.1	130.0	230
83011320323	4G1.5+(3x1)	11.8	145.0	225
83011320332	4G1.5+(2x1.5)	11.7	146.0	242
83011320352	4G1.5+2x(2x0.75)	12.3	150.0	245
83011320402	4G2.5+(2x0.5)	12.1	158.0	247
83011320422	4G2.5+(2x1)	12.8	173.0	293
83011320432	4G2.5+(2x1.5)	12.9	189.0	306
83011320462	4G2.5+2x(2x1)	14.7	223.0	357

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
83011320522	4G4+(2x1)	14.4	250.0	373
83011320523	4G4+(3x1)	14.8	270.0	402
83011320532	4G4+(2x1.5)	15.0	271.0	420
83011320562	4G4+2x(2x1)	16.2	288.0	452
83011320594	4G4+(2x1)+(2x1.5)	16.6	307.0	469
83011320622	4G6+(2x1)	15.8	334.0	485
83011320632	4G6+(2x1.5)	16.2	351.0	529
83011320633	4G6+(3x1.5)	17.0	370.0	537
83011320694	4G6+(2x1)+(2x1.5)	17.1	421.0	617
83011320722	4G10+(2x1)	18.6	526.0	712
83011320732	4G10+(2x1.5)	18.6	540.0	752
83011320733	4G10+(3x1.5)	19.5	559.0	758
83011320794	4G10+(2x1)+(2x1.5)	21.6	588.0	852
83011320822	4G16+(2x1)	21.3	722.0	991
83011320832	4G16+(2x1.5)	22.5	785.2	999
83011320833	4G16+(3x1.5)	23.0	805.0	1,151
83011320872	4G16+2x(2x1.5)	25.4	876.0	1,162
83011321132	4G25+(2x1.5)	26.1	1,184.9	1,459
83011321172	4G25+2x(2x1.5)	29.0	1,227.0	1,590
83011321232	4G35+(2x1.5)	30.4	1,598.1	1,971
83011321272	4G35+2x(2x1.5)	31.2	1,652.0	2,023
83011321332	4G50+(2x1.5)	34.0	2,205.2	2,713
83011321382	4G50+2x(2x2.5)	37.0	2,264.0	2,876

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ÖLFLEX® ROBOT 915, 450/750V

High flexible robot single core cable for dynamic bending and torsion motion

Info

- For dynamic power chain application
  Low-capacitance design
- Halogen free cable

LAPP KABEL STUTTGART ÖLFLEX® RBOT 915 2 Pfg 2577 IRS07V-H Class III 450/750V

Benefits

- Easy installation and space saving due to small cable diameters
- Designed for up to 5 million torsion and bending cycles
- Simulate the practical torsion motion of robot and pass all kinds of rigorous torsion tests
- Robust and abrasion, increased durability under harsh conditions thanks to special insulation material
- Resistant to oil, acid and alkali substances
- Flexible at low temperature

Application range

- Industrial machinery, machine tools and automated handling equipment
- Automotive industry
- Used inside of dress packs of buckling arm robots and for gantry robots
- In power chains or moving machine parts

Product features

- Abrasion resistant
- Good oil resistance
- Good chemical resistance
- Flexible at low temperature
- Flame retardant acc. to IEC 60332-1-2

Norm references / Approvals

- TÜ VRheinland certificate acc. to TÜ V 2PfG 2577/07.19, IRS07V-H, Class III

Product Make-up

- Conductor: Extra-fine wire strand made of bare copper wires (class 6)
- Insulation: Special Polyvinylchloride

Technical data

Core identification code
Extra-fine wire according to VDE 0295 class 6/ IEC60228 Class 6

Torsion
Torsion load max. ± 180 °/m

Bending cycles & operation parameters
5 Mio. cycles, with below conditions:
- Max. movement speed: 1m/s
- Max. admissible vertical travel distance: 2m
- Min. bending radius: 7.5 x outer diameter

Minimum bending radius
Dynamic using : 6 × outer diameter

Nominal voltage
U_0 /U: 450/750 V

Test voltage
4000 V

Temperature range
Dynamic using: -30°C up to +90°C
Fixed installation: - 40°C to + 90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Insulation color	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® ROBOT 915, 450/750V					
8301002801	1 X 1.5	3.5	black	14.4	25
8301002821	1 X 1.5	3.5	white	14.4	25
8301002841	1 X 1.5	3.5	red	14.4	25
8301002861	1 X 1.5	3.5	grey	14.4	25
8301002881	1 X 1.5	3.5	green/yellow	14.4	25
8301002802	1 X 2.5	4.2	black	24.0	38
8301002822	1 X 2.5	4.2	white	24.0	38
8301002842	1 X 2.5	4.2	red	24.0	38
8301002862	1 X 2.5	4.2	grey	24.0	38
8301002882	1 X 2.5	4.2	green/yellow	24.0	38
8301002803	1 X 4	4.6	black	38.4	55
8301002823	1 X 4	4.6	white	38.4	55
8301002843	1 X 4	4.6	red	38.4	55
8301002863	1 X 4	4.6	grey	38.4	55
8301002883	1 X 4	4.6	green/yellow	38.4	55
8301002804	1 X 6	5.6	black	57.6	81
8301002824	1 X 6	5.6	white	57.6	81
8301002844	1 X 6	5.6	red	57.6	81
8301002864	1 X 6	5.6	grey	57.6	81
8301002884	1 X 6	5.6	green/yellow	57.6	81
8301002805	1 X 10	7.9	black	96.0	140
8301002825	1 X 10	7.9	white	96.0	140
8301002845	1 X 10	7.9	red	96.0	140
8301002865	1 X 10	7.9	grey	96.0	140
8301002885	1 X 10	7.9	green/yellow	96.0	140
8301002806	1 X 16	10.0	black	96.0	140
8301002826	1 X 16	10.0	white	96.0	140

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Insulation color	Copper index (kg/km)	Weight (kg/km)
8301002846	1 X 16	10.0	red	96.0	140
8301002866	1 X 16	10.0	grey	96.0	140
8301002886	1 X 16	10.0	green/yellow	96.0	140
8301002807	1 X 25	11.6	black	240.0	330
8301002827	1 X 25	11.6	white	240.0	330
8301002847	1 X 25	11.6	red	240.0	330
8301002867	1 X 25	11.6	grey	240.0	330
8301002887	1 X 25	11.6	green/yellow	240.0	330
8301002808	1 X 35	12.2	black	336.0	440
8301002828	1 X 35	12.2	white	336.0	440
8301002848	1 X 35	12.2	red	336.0	440
8301002868	1 X 35	12.2	grey	336.0	440
8301002888	1 X 35	12.2	green/yellow	336.0	440
8301002809	1 X 50	16.1	black	480.0	650
8301002829	1 X 50	16.1	white	480.0	650
8301002849	1 X 50	16.1	red	480.0	650
8301002869	1 X 50	16.1	grey	480.0	650
8301002889	1 X 50	16.1	green/yellow	480.0	650
8301002810	1 X 70	18.1	black	672.0	871
8301002830	1 X 70	18.1	white	672.0	871
8301002850	1 X 70	18.1	red	672.0	871
8301002870	1 X 70	18.1	grey	672.0	871
8301002890	1 X 70	18.1	green/yellow	672.0	871
8301002811	1 X 95	20.4	black	912.0	1,145
8301002831	1 X 95	20.4	white	912.0	1,145
8301002851	1 X 95	20.4	red	912.0	1,145
8301002871	1 X 95	20.4	grey	912.0	1,145
8301002891	1 X 95	20.4	green/yellow	912.0	1,145

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ÖLFLEX® INSTRUM RE-2X(ST)Y

Info

- Un-armoured XLPE insulation
- Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- XLPE core insulation
- Pairs are collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC outer sheath, black or blue

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
6 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-2X(ST)Y					
1270000	1x2x0.5	6.9	black	14.4	48
1270001	1x2x0.5	6.9	blue	14.4	48
1270002	2x2x0.5	9.8	black	24.0	73
1270003	2x2x0.5	9.8	blue	24.0	73
1270004	4x2x0.5	11.5	black	43.2	132
1270005	4x2x0.5	11.5	blue	43.2	132
1270006	6x2x0.5	13.7	black	62.4	185
1270007	6x2x0.5	13.7	blue	62.4	185
1270008	8x2x0.5	15.2	black	81.6	223
1270009	8x2x0.5	15.2	blue	81.6	223
1270010	10x2x0.5	17.4	black	100.8	276
1270011	10x2x0.5	17.4	blue	100.8	276
1270012	12x2x0.5	17.9	black	120.0	323
1270013	12x2x0.5	17.9	blue	120.0	323
1270030	1x2x0.75	7.3	black	19.2	57
1270031	1x2x0.75	7.3	blue	19.2	57
1270032	2x2x0.75	10.7	black	33.6	88
1270033	2x2x0.75	10.7	blue	33.6	88
1270034	4x2x0.75	12.3	black	62.4	213
1270035	4x2x0.75	12.3	blue	62.4	213
1270036	6x2x0.75	14.7	black	91.2	233
1270037	6x2x0.75	14.7	blue	91.2	233
1270038	8x2x0.75	16.7	black	120.0	285
1270039	8x2x0.75	16.7	blue	120.0	285
1270040	10x2x0.75	19.0	black	148.8	352
1270041	10x2x0.75	19.0	blue	148.8	352
1270042	12x2x0.75	19.6	black	177.6	409
1270043	12x2x0.75	19.6	blue	177.6	409
1270080	1x2x1	7.9	black	24.0	71
1270081	1x2x1	7.9	blue	24.0	71
1270082	2x2x1	11.3	black	43.2	102
1270083	2x2x1	11.3	blue	43.2	102
1270084	4x2x1	13.2	black	81.6	195
1270085	4x2x1	13.2	blue	81.6	195
1270086	6x2x1	15.9	black	120.0	291

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1270087	6x2x1	15.9	blue	120.0	291
1270088	8x2x1	17.7	black	158.4	356
1270089	8x2x1	17.7	blue	158.4	356
1270090	10x2x1	20.1	black	196.8	439
1270091	10x2x1	20.1	blue	196.8	439
1270092	12x2x1	20.8	black	235.2	511
1270093	12x2x1	20.8	blue	235.2	511
1270120	1x2x1.5	8.5	black	33.6	86
1270121	1x2x1.5	8.5	blue	33.6	86
1270122	2x2x1.5	12.3	black	62.4	134
1270123	2x2x1.5	12.3	blue	62.4	134
1270124	4x2x1.5	14.4	black	120.0	240
1270125	4x2x1.5	14.4	blue	120.0	240
1270126	6x2x1.5	17.4	black	177.6	337
1270127	6x2x1.5	17.4	blue	177.6	337
1270128	8x2x1.5	19.6	black	235.2	428
1270129	8x2x1.5	19.6	blue	235.2	428
1270130	10x2x1.5	22.4	black	292.8	537
1270131	10x2x1.5	22.4	blue	292.8	537
1270132	12x2x1.5	23.1	black	350.4	627
1270133	12x2x1.5	23.1	blue	350.4	627
1270150	1x2x2.5	9.8	black	52.8	105
1270151	1x2x2.5	9.8	blue	52.8	105
1270152	2x2x2.5	14.6	black	100.8	188
1270153	2x2x2.5	14.6	blue	100.8	188
1270154	4x2x2.5	17.1	black	196.8	310
1270155	4x2x2.5	17.1	blue	196.8	310
1270156	6x2x2.5	20.6	black	292.8	440
1270157	6x2x2.5	20.6	blue	292.8	440
1270158	8x2x2.5	23.4	black	388.8	570
1270159	8x2x2.5	23.4	blue	388.8	570
1270160	10x2x2.5	26.9	black	484.8	717
1270161	10x2x2.5	26.9	blue	484.8	717
1270162	12x2x2.5	27.8	black	580.8	828
1270163	12x2x2.5	27.8	blue	580.8	828

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ÖLFLEX® INSTRUM RE-2X(ST)Y PiMF

Info

- Un-armoured XLPE insulation
- Individual and Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- XLPE core insulation
- Pairs are individually and collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC outer sheath, black or blue

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
6 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-2X(ST)Y PiMF					
1270200	2x2x0.5	10.8	black	33.6	89
1270201	2x2x0.5	10.8	blue	33.6	89
1270202	4x2x0.5	12.4	black	62.4	156
1270203	4x2x0.5	12.4	blue	62.4	156
1270204	6x2x0.5	14.7	black	91.2	213
1270205	6x2x0.5	14.7	blue	91.2	213
1270206	8x2x0.5	16.7	black	120.0	259
1270207	8x2x0.5	16.7	blue	120.0	259
1270208	10x2x0.5	18.9	black	148.8	323
1270209	10x2x0.5	18.9	blue	148.8	323
1270210	12x2x0.5	19.5	black	177.6	378
1270211	12x2x0.5	19.5	blue	177.6	378
1270240	2x2x0.75	11.6	black	43.2	106
1270241	2x2x0.75	11.6	blue	43.2	106
1270242	4x2x0.75	13.5	black	81.6	195
1270243	4x2x0.75	13.5	blue	81.6	195
1270244	6x2x0.75	16.1	black	120.0	255
1270245	6x2x0.75	16.1	blue	120.0	255
1270246	8x2x0.75	18.0	black	158.4	310
1270247	8x2x0.75	18.0	blue	158.4	310
1270248	10x2x0.75	20.5	black	196.8	387
1270249	10x2x0.75	20.5	blue	196.8	387
1270250	12x2x0.75	21.3	black	235.2	451
1270251	12x2x0.75	33.9	blue	235.2	1,284
1270280	2x2x1	12.2	black	52.8	133
1270281	2x2x1	12.2	blue	52.8	133
1270282	4x2x1	14.3	black	100.8	243
1270283	4x2x1	14.3	blue	100.8	243
1270284	6x2x1	17.1	black	148.8	319
1270285	6x2x1	17.1	blue	148.8	319

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1270286	8x2x1	19.6	black	196.8	388
1270287	8x2x1	19.6	blue	196.8	388
1270288	10x2x1	22.0	black	244.8	483
1270289	10x2x1	22.0	blue	244.8	483
1270290	12x2x1	22.7	black	292.8	563
1270291	12x2x1	22.7	blue	292.8	563
1270330	2x2x1.5	13.5	black	72.0	149
1270331	2x2x1.5	13.5	blue	72.0	149
1270332	4x2x1.5	15.8	black	139.2	284
1270333	4x2x1.5	15.8	blue	139.2	284
1270334	6x2x1.5	18.9	black	206.4	361
1270335	6x2x1.5	18.9	blue	206.4	361
1270336	8x2x1.5	21.4	black	273.6	468
1270337	8x2x1.5	21.4	blue	273.6	468
1270338	10x2x1.5	24.3	black	340.8	578
1270339	10x2x1.5	24.3	blue	340.8	578
1270340	12x2x1.5	25.1	black	408.0	680
1270341	12x2x1.5	25.1	blue	408.0	680
1270360	2x2x2.5	15.9	black	110.4	189
1270361	2x2x2.5	15.9	blue	110.4	189
1270362	4x2x2.5	18.7	black	216.0	309
1270363	4x2x2.5	18.7	blue	216.0	309
1270364	6x2x2.5	22.4	black	321.6	496
1270365	6x2x2.5	22.4	blue	321.6	496
1270366	8x2x2.5	25.4	black	427.2	667
1270367	8x2x2.5	25.4	blue	427.2	667
1270368	10x2x2.5	28.8	black	532.8	853
1270369	10x2x2.5	28.8	blue	532.8	853
1270370	12x2x2.5	30.2	black	638.4	1,055
1270371	12x2x2.5	30.2	blue	638.4	1,055

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ÖLFLEX® INSTRUM RE-2X(ST)YRY

Info

- Armoured XLPE insulation
- Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- XLPE core insulation
- Pairs are collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC inner sheath, black
- PVC outer sheath, black or blue
- Galvanized steel wire armoured

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-2X(ST)YRY					
1270400	1x2x0.5	11.3	black	14.4	218
1270401	1x2x0.5	11.3	blue	14.4	218
1270402	2x2x0.5	14.4	black	24.0	335
1270403	2x2x0.5	14.4	blue	24.0	335
1270404	4x2x0.5	16.1	black	43.2	392
1270405	4x2x0.5	16.1	blue	43.2	392
1270406	6x2x0.5	19.2	black	62.4	527
1270407	6x2x0.5	19.2	blue	62.4	527
1270408	8x2x0.5	20.8	black	81.6	722
1270409	8x2x0.5	20.8	blue	81.6	722
1270410	10x2x0.5	23.8	black	100.8	822
1270411	10x2x0.5	23.8	blue	100.8	822
1270412	12x2x0.5	24.3	black	120.0	903
1270413	12x2x0.5	24.3	blue	120.0	903
1270440	1x2x0.75	11.7	black	19.2	237
1270441	1x2x0.75	11.7	blue	19.2	237
1270442	2x2x0.75	15.3	black	33.6	378
1270443	2x2x0.75	15.3	blue	33.6	378
1270444	4x2x0.75	17.6	black	62.4	526
1270445	4x2x0.75	17.6	blue	62.4	526
1270446	6x2x0.75	20.2	black	91.2	670
1270447	6x2x0.75	20.2	blue	91.2	670
1270448	8x2x0.75	22.3	black	120.0	785
1270449	8x2x0.75	22.3	blue	120.0	785
1270450	10x2x0.75	25.4	black	148.8	1,045
1270451	10x2x0.75	25.4	blue	148.8	1,045
1270452	12x2x0.75	26.2	black	177.6	1,115
1270453	12x2x0.75	26.2	blue	177.6	1,115
1270480	1x2x1	12.3	black	24.0	255
1270481	1x2x1	12.3	blue	24.0	255
1270482	2x2x1	15.9	black	43.2	385
1270483	2x2x1	15.9	blue	43.2	385
1270484	4x2x1	18.8	black	81.6	595
1270485	4x2x1	18.8	blue	81.6	595
1270486	6x2x1	21.4	black	120.0	735
1270487	6x2x1	21.4	blue	120.0	735
1270488	8x2x1	24.1	black	158.4	995
1270489	8x2x1	24.1	blue	158.4	995
1270490	10x2x1	26.8	black	196.8	1,153
1270491	10x2x1	26.8	blue	196.8	1,153
1270492	12x2x1	27.4	black	235.2	1,238
1270493	12x2x1	27.4	blue	235.2	1,238
1270530	1x2x1.5	12.9	black	33.6	281
1270531	1x2x1.5	12.9	blue	33.6	281
1270532	2x2x1.5	17.6	black	62.4	525
1270533	2x2x1.5	17.6	blue	62.4	525
1270534	4x2x1.5	20.0	black	120.0	676
1270535	4x2x1.5	20.0	blue	120.0	676
1270536	6x2x1.5	23.7	black	177.6	985
1270537	6x2x1.5	23.7	blue	177.6	985
1270538	8x2x1.5	26.2	black	235.2	1,162
1270539	8x2x1.5	26.2	blue	235.2	1,162
1270540	10x2x1.5	29.0	black	292.8	1,354
1270541	10x2x1.5	29.0	blue	292.8	1,354
1270542	12x2x1.5	29.9	black	350.4	1,473
1270543	12x2x1.5	29.9	blue	350.4	1,473
1270570	1x2x2.5	14.4	black	52.8	350
1270571	1x2x2.5	14.4	blue	52.8	350
1270572	2x2x2.5	20.1	black	100.8	658
1270573	2x2x2.5	20.1	blue	100.8	658
1270574	4x2x2.5	23.5	black	196.8	1,005
1270575	4x2x2.5	23.5	blue	196.8	1,005
1270576	6x2x2.5	27.2	black	292.8	1,266
1270577	6x2x2.5	27.2	blue	292.8	1,266
1270578	8x2x2.5	30.2	black	388.8	1,510
1270579	8x2x2.5	30.2	blue	388.8	1,510
1270580	10x2x2.5	33.9	black	484.8	1,818
1270581	10x2x2.5	33.9	blue	484.8	1,818
1270582	12x2x2.5	35.6	black	580.8	2,206
1270583	12x2x2.5	35.6	blue	580.8	2,206

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CE

ÖLFLEX® INSTRUM RE-2X(ST)YRY PiMF

Info

- Armoured XLPE insulation
- Individual and Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- XLPE core insulation
- Pairs are individually and collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC inner sheath, black
- PVC outer sheath, black or blue
- Galvanized steel wire armoured

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-2X(ST)YRY PiMF					
1270600	2x2x0.5	15.4	black	33.6	349
1270601	2x2x0.5	15.4	blue	33.6	349
1270602	4x2x0.5	17.7	black	62.4	514
1270603	4x2x0.5	17.7	blue	62.4	514
1270604	6x2x0.5	20.2	black	91.2	629
1270605	6x2x0.5	20.2	blue	91.2	629
1270606	8x2x0.5	22.3	black	120.0	742
1270607	8x2x0.5	22.3	blue	120.0	742
1270608	10x2x0.5	25.3	black	148.8	999
1270609	10x2x0.5	25.3	blue	148.8	999
1270610	12x2x0.5	26.1	black	177.6	1,058
1270611	12x2x0.5	26.1	blue	177.6	1,058
1270640	2x2x0.75	16.1	black	43.2	383
1270641	2x2x0.75	16.1	blue	43.2	383
1270642	4x2x0.75	19.0	black	81.6	579
1270643	4x2x0.75	19.0	blue	81.6	579
1270644	6x2x0.75	21.6	black	120.0	730
1270645	6x2x0.75	21.6	blue	120.0	730
1270646	8x2x0.75	24.3	black	158.4	961
1270647	8x2x0.75	24.3	blue	158.4	961
1270648	10x2x0.75	27.0	black	196.8	1,130
1270649	10x2x0.75	27.0	blue	196.8	1,130
1270650	12x2x0.75	27.9	black	235.2	1,200
1270651	12x2x0.75	27.9	blue	235.2	1,200
1270680	2x2x1	17.5	black	52.8	497
1270681	2x2x1	17.5	blue	52.8	497
1270682	4x2x1	19.7	black	100.8	628
1270683	4x2x1	19.7	blue	100.8	628
1270684	6x2x1	23.5	black	148.8	911
1270685	6x2x1	23.5	blue	148.8	911

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1270686	8x2x1	25.9	black	196.8	1,084
1270687	8x2x1	25.9	blue	196.8	1,084
1270688	10x2x1	28.5	black	244.8	1,255
1270689	10x2x1	28.5	blue	244.8	1,255
1270690	12x2x1	29.4	black	292.8	1,338
1270691	12x2x1	29.4	blue	292.8	1,338
1270730	2x2x1.5	19.0	black	72.0	574
1270731	2x2x1.5	19.0	blue	72.0	574
1270732	4x2x1.5	21.3	black	139.2	731
1270733	4x2x1.5	21.3	blue	139.2	731
1270734	6x2x1.5	25.3	black	206.4	1,065
1270735	6x2x1.5	25.3	blue	206.4	1,065
1270736	8x2x1.5	27.9	black	273.6	1,247
1270737	8x2x1.5	27.9	blue	273.6	1,247
1270738	10x2x1.5	31.1	black	340.8	1,473
1270739	10x2x1.5	31.1	blue	340.8	1,473
1270740	12x2x1.5	31.9	black	408.0	1,582
1270741	12x2x1.5	31.9	blue	408.0	1,582
1270760	2x2x2.5	21.4	black	110.4	710
1270761	2x2x2.5	21.4	blue	110.4	710
1270762	4x2x2.5	25.1	black	216.0	1,080
1270763	4x2x2.5	25.1	blue	216.0	1,080
1270764	6x2x2.5	29.0	black	321.6	1,370
1270765	6x2x2.5	29.0	blue	321.6	1,370
1270766	8x2x2.5	32.2	black	427.2	1,621
1270767	8x2x2.5	32.2	blue	427.2	1,621
1270768	10x2x2.5	37.0	black	532.8	2,170
1270769	10x2x2.5	37.0	blue	532.8	2,170
1270770	12x2x2.5	38.1	black	638.4	2,355
1270771	12x2x2.5	38.1	blue	638.4	2,355

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ÖLFLEX® INSTRUM RE-Y(ST)Y

Info

- Un-armoured PVC (V-90HT) Heat Resistant
- Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- PVC (V-90HT) core insulation
- Pairs are collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC outer sheath, black or blue

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers
Multicore: black with numbers
(4C and above)

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
6 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +105°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-Y(ST)Y					
1270800	1x2x0.5	6.9	black	14.4	60
1270801	1x2x0.5	6.9	blue	14.4	60
1270802	2x2x0.5	9.8	black	24.0	86
1270803	2x2x0.5	9.8	blue	24.0	86
1270824	3x2x0.5	10.6	black	33.6	125
1270825	3x2x0.5	10.6	blue	33.6	125
1270804	4x2x0.5	11.5	black	43.2	160
1270805	4x2x0.5	11.5	blue	43.2	160
1270840	1x2x0.75	7.3	black	19.2	69
1270841	1x2x0.75	7.3	blue	19.2	69
1270842	2x2x0.75	10.7	black	33.6	104
1270843	2x2x0.75	10.7	blue	33.6	104
1270866	3x2x0.75	11.3	black	48.0	118
1270867	3x2x0.75	11.3	blue	48.0	118
1270844	4x2x0.75	12.3	black	62.4	187
1270845	4x2x0.75	12.3	blue	62.4	187
1270900	1x2x1.0	7.9	black	24.0	92
1270901	1x2x1.0	7.9	blue	24.0	92
1270902	2x2x1.0	11.3	black	43.2	129
1270903	2x2x1.0	11.3	blue	43.2	129
1270926	3x2x1.0	12.0	black	62.4	155
1270927	3x2x1.0	12.0	blue	62.4	155
1270904	4x2x1.0	13.2	black	81.6	234
1270905	4x2x1.0	13.2	blue	81.6	234
1270950	1x2x1.5	8.5	black	33.6	104
1270951	1x2x1.5	8.5	blue	33.6	104
1270952	2x2x1.5	12.3	black	62.4	155
1270953	2x2x1.5	12.3	blue	62.4	155
1270978	3x2x1.5	13.2	black	91.2	176
1270979	3x2x1.5	13.2	blue	91.2	176
1270954	4x2x1.5	14.4	black	120.0	290
1270955	4x2x1.5	14.4	blue	120.0	290
1271000	1x2x2.5	9.8	black	52.8	132
1271001	1x2x2.5	9.8	blue	52.8	132
1271002	2x2x2.5	14.6	black	100.8	226
1271003	2x2x2.5	14.6	blue	100.8	226
1271026	3x2x2.5	15.5	black	148.8	258
1271027	3x2x2.5	15.5	blue	148.8	258
1271004	4x2x2.5	17.1	black	196.8	372
1271005	4x2x2.5	17.1	blue	196.8	372

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1271250	3x0.5	7.2	black	19.2	51
1271251	3x0.5	7.2	blue	19.2	51
1271252	4x0.5	8.0	black	24.0	63
1271253	4x0.5	8.0	blue	24.0	63
1271254	6x0.5	9.2	black	33.6	89
1271255	6x0.5	9.2	blue	33.6	89
1271268	8x0.5	10.4	black	43.2	110
1271269	8x0.5	10.4	blue	43.2	110
1271256	10x0.5	11.5	black	52.8	135
1271257	10x0.5	11.5	blue	52.8	135
1271280	3x0.75	7.9	black	26.4	61
1271281	3x0.75	7.9	blue	26.4	61
1271282	4x0.75	8.5	black	33.6	76
1271283	4x0.75	8.5	blue	33.6	76
1271284	6x0.75	9.8	black	48.0	110
1271285	6x0.75	9.8	blue	48.0	110
1271248	8x0.75	11.1	black	62.4	140
1271249	8x0.75	11.1	blue	62.4	140
1271286	10x0.75	12.4	black	76.8	173
1271287	10x0.75	12.4	blue	76.8	173
1271300	3x1.5	9.0	black	48.0	95
1271301	3x1.5	9.0	blue	48.0	95
1271302	4x1.5	9.7	black	62.4	120
1271303	4x1.5	9.7	blue	62.4	120
1271304	6x1.5	11.5	black	91.2	175
1271305	6x1.5	11.5	blue	91.2	175
1271318	8x1.5	12.8	black	120.0	225
1271319	8x1.5	12.8	blue	120.0	225
1271306	10x1.5	14.5	black	148.8	275
1271307	10x1.5	14.5	blue	148.8	275
1271340	3x2.5	9.9	black	76.8	145
1271341	3x2.5	9.9	blue	76.8	145
1271342	4x2.5	10.9	black	100.8	182
1271343	4x2.5	10.9	blue	100.8	182
1271344	6x2.5	12.8	black	148.8	266
1271345	6x2.5	12.8	blue	148.8	266
1271358	8x2.5	14.5	black	196.8	350
1271359	8x2.5	14.5	blue	196.8	350
1271346	10x2.5	16.4	black	244.8	434
1271347	10x2.5	16.4	blue	244.8	434

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CE

ÖLFLEX® INSTRUM RE-Y(ST)Y PiMF

Info

- Un-armoured PVC (V-90HT) Heat Resistant
- Individual and Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- PVC (V-90HT) core insulation
- Pairs are individually and collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC outer sheath, black or blue

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
6 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +105°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-Y(ST)Y PiMF					
1271050	2x2x0.5	10.8	black	33.6	116
1271051	2x2x0.5	10.8	blue	33.6	116
1271074	3x2x0.5	11.4	black	48.0	155
1271075	3x2x0.5	11.4	blue	48.0	155
1271052	4x2x0.5	12.4	black	62.4	202
1271053	4x2x0.5	12.4	blue	62.4	202
1271076	5x2x0.5	13.6	black	76.8	238
1271077	5x2x0.5	13.6	blue	76.8	238
1271054	6x2x0.5	14.7	black	91.2	275
1271055	6x2x0.5	14.7	blue	91.2	275
1271056	8x2x0.5	16.7	black	120.0	336
1271057	8x2x0.5	16.7	blue	120.0	336
1271058	10x2x0.5	18.9	black	148.8	418
1271059	10x2x0.5	18.9	blue	148.8	418
1271060	12x2x0.5	19.5	black	177.6	490
1271061	12x2x0.5	19.5	blue	177.6	490
1271080	2x2x0.75	11.6	black	43.2	138
1271081	2x2x0.75	11.6	blue	43.2	138
1271104	3x2x0.75	12.3	black	62.4	188
1271105	3x2x0.75	12.3	blue	62.4	188
1271082	4x2x0.75	13.5	black	81.6	252
1271083	4x2x0.75	13.5	blue	81.6	252
1271106	5x2x0.75	14.6	black	100.8	277
1271107	5x2x0.75	14.6	blue	100.8	277
1271084	6x2x0.75	16.1	black	120.0	330
1271085	6x2x0.75	16.1	blue	120.0	330
1271086	8x2x0.75	18.0	black	158.4	402
1271087	8x2x0.75	18.0	blue	158.4	402
1271088	10x2x0.75	20.5	black	196.8	501
1271089	10x2x0.75	20.5	blue	196.8	501
1271090	12x2x0.75	21.3	black	235.2	583
1271091	12x2x0.75	21.3	blue	235.2	583
1271120	2x2x1.0	12.2	black	52.8	172
1271121	2x2x1.0	12.2	blue	52.8	172
1271144	3x2x1.0	13.1	black	76.8	227
1271145	3x2x1.0	13.1	blue	76.8	227
1271122	4x2x1.0	14.3	black	100.8	315
1271123	4x2x1.0	14.3	blue	100.8	315
1271146	5x2x1.0	15.7	black	124.8	365
1271147	5x2x1.0	15.7	blue	124.8	365

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1271124	6x2x1.0	17.1	black	148.8	413
1271125	6x2x1.0	17.1	blue	148.8	413
1271126	8x2x1.0	19.6	black	196.8	502
1271127	8x2x1.0	19.6	blue	196.8	502
1271128	10x2x1.0	22.0	black	244.8	626
1271129	10x2x1.0	22.0	blue	244.8	626
1271130	12x2x1.0	22.7	black	292.8	729
1271131	12x2x1.0	22.7	blue	292.8	729
1271160	2x2x1.5	13.5	black	72.0	193
1271161	2x2x1.5	13.5	blue	72.0	193
1271182	3x2x1.5	14.3	black	105.6	273
1271183	3x2x1.5	14.3	blue	105.6	273
1271162	4x2x1.5	15.8	black	139.2	369
1271163	4x2x1.5	15.8	blue	139.2	369
1271184	5x2x1.5	17.2	black	172.8	412
1271185	5x2x1.5	17.2	blue	172.8	412
1271164	6x2x1.5	18.9	black	206.4	468
1271165	6x2x1.5	18.9	blue	206.4	468
1271166	8x2x1.5	21.4	black	273.6	605
1271167	8x2x1.5	21.4	blue	273.6	605
1271168	10x2x1.5	24.3	black	340.8	748
1271169	10x2x1.5	24.3	blue	340.8	748
1271170	12x2x1.5	25.1	black	408.0	880
1271171	12x2x1.5	25.1	blue	408.0	880
1271200	2x2x2.5	15.9	black	110.4	259
1271201	2x2x2.5	15.9	blue	110.4	259
1271222	3x2x2.5	16.9	black	163.2	291
1271223	3x2x2.5	16.9	blue	163.2	291
1271202	4x2x25	18.7	black	216.0	379
1271203	4x2x2.5	18.7	blue	216.0	379
1271224	5x2x2.5	20.4	black	268.8	437
1271225	5x2x2.5	20.4	blue	268.8	437
1271204	6x2x2.5	22.4	black	321.6	666
1271205	6x2x2.5	22.4	blue	321.6	666
1271206	8x2x2.5	25.4	black	427.2	847
1271207	8x2x2.5	25.4	blue	427.2	847
1271208	10x2x2.5	28.8	black	532.8	1,061
1271209	10x2x2.5	28.8	blue	532.8	1,061
1271210	12x2x2.5	30.2	black	638.4	1,249
1271211	12x2x2.5	30.2	blue	638.4	1,249

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ÖLFLEX® INSTRUM RE-Y(ST)YRY

Info

- Armoured PVC (V-90HT) Heat Resistant
- Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- PVC (V-90HT) core insulation
- Pairs are collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC inner sheath, black
- PVC outer sheath, black or blue
- Galvanized steel wire amoured

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers
Multicore: black with numbers
(4C and above)

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +105°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-Y(ST)YRY					
1271380	1x2x0.5	11.3	black	14.4	248
1271381	1x2x0.5	11.3	blue	14.4	248
1271382	2x2x0.5	14.4	black	24.0	365
1271383	2x2x0.5	14.4	blue	24.0	365
1271404	3x2x0.5	15.2	black	33.6	406
1271405	3x2x0.5	15.2	blue	33.6	406
1271384	4x2x0.5	16.1	black	43.2	455
1271385	4x2x0.5	16.1	blue	43.2	455
1271420	1x2x0.75	11.7	black	19.2	264
1271421	1x2x0.75	11.7	blue	19.2	264
1271422	2x2x0.75	15.3	black	33.6	395
1271423	2x2x0.75	15.3	blue	33.6	395
1271444	3x2x0.75	15.9	black	48.1	486
1271445	3x2x0.75	15.9	blue	48.1	486
1271424	4x2x0.75	17.6	black	62.4	603
1271425	4x2x0.75	17.6	blue	62.4	603
1271460	1x2x1.0	12.3	black	24.0	270
1271461	1x2x1.0	12.3	blue	24.0	270
1271462	2x2x1.0	15.9	black	43.2	429
1271463	2x2x1.0	15.9	blue	43.2	429
1271486	3x2x1.0	17.3	black	62.4	569
1271487	3x2x1.0	17.3	blue	62.4	569
1271464	4x2x1.0	18.8	black	81.6	753
1271465	4x2x1.0	18.8	blue	81.6	753
1271500	1x2x1.5	12.9	black	33.6	336
1271501	1x2x1.5	12.9	blue	33.6	336
1271502	2x2x1.5	17.6	black	62.4	589
1271503	2x2x1.5	17.6	blue	62.4	589
1271524	3x2x1.5	18.7	black	91.2	675
1271525	3x2x1.5	18.7	blue	91.2	675
1271504	4x2x1.5	20.0	black	120.0	849
1271505	4x2x1.5	20.0	blue	120.0	849
1271550	1x2x2.5	14.4	black	52.8	407
1271551	1x2x2.5	14.4	blue	52.8	407
1271552	2x2x2.5	20.1	black	100.8	689
1271553	2x2x2.5	20.1	blue	100.8	689
1271576	3x2x2.5	21.0	black	148.8	855
1271577	3x2x2.5	21.0	blue	148.8	855
1271554	4x2x2.5	23.5	black	196.8	1,111
1271555	4x2x2.5	23.5	blue	196.8	1,111

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1271800	3x0.5	11.6	black	19.2	280
1271801	3x0.5	11.6	blue	19.2	280
1271802	4x0.5	12.4	black	24.0	335
1271803	4x0.5	12.4	blue	24.0	335
1271804	6x0.5	13.6	black	33.6	360
1271805	6x0.5	13.6	blue	33.6	360
1271818	8x0.5	15.0	black	43.2	445
1271819	8x0.5	15.0	blue	43.2	445
1271806	10x0.5	16.1	black	52.8	510
1271807	10x0.5	16.1	blue	52.8	510
1271830	3x0.75	12.3	black	26.4	305
1271831	3x0.75	12.3	blue	26.4	305
1271832	4x0.75	12.9	black	33.6	355
1271833	4x0.75	12.9	blue	33.6	355
1271834	6x0.75	14.5	black	48.0	400
1271835	6x0.75	14.5	blue	48.0	400
1271848	8x0.75	15.7	black	62.4	502
1271849	8x0.75	15.7	blue	62.4	502
1271836	10x0.75	17.9	black	76.8	565
1271837	10x0.75	17.9	blue	76.8	565
1271860	3x1.5	13.3	black	48.0	380
1271861	3x1.5	13.3	blue	48.0	380
1271862	4x1.5	14.1	black	62.4	420
1271863	4x1.5	14.1	blue	62.4	420
1271864	6x1.5	16.1	black	91.2	540
1271865	6x1.5	16.1	blue	91.2	540
1271879	8x1.5	18.3	black	120.0	618
1271880	8x1.5	18.3	blue	120.0	618
1271866	10x1.5	20.0	black	148.8	750
1271867	10x1.5	20.0	blue	148.8	750
1271900	3x2.5	15.1	black	76.8	500
1271901	3x2.5	15.1	blue	76.8	500
1271902	4x2.5	16.0	black	100.8	535
1271903	4x2.5	16.0	blue	100.8	535
1271904	6x2.5	19.1	black	148.8	780
1271905	6x2.5	19.1	blue	148.8	780
1271918	8x2.5	20.7	black	196.8	856
1271919	8x2.5	20.7	blue	196.8	856
1271906	10x2.5	23.6	black	244.8	940
1271907	10x2.5	23.6	blue	244.8	940

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CE

ÖLFLEX® INSTRUM RE-Y(ST)YRY PiMF

Info

- Armoured PVC (V-90HT) Heat Resistant
- Individual and Overall Screen

Application range

- For communication, data and voice transmission signal in industrial process manufacturing plants
- Oil and Gas industry
- Petrochemical industry
- Generally used for indoor installation and suitable for wet and damp areas
- The Blue outer sheath is suitable for use with Group 2 Intrinsically Safe (IS) systems in hazardous areas where the voltage range is <50 VAC / <75 VDC

Product features

- Flame retardant in acc. to IEC 60332-3-24

Norm references / Approvals

- Based on EN 50288-7

Product Make-up

- Stranded plain annealed copper wires
- PVC (V-90HT) core insulation
- Pairs are individually and collectively screened with aluminium polyester tape
- Tinned copper drain wire
- PVC inner sheath, black
- PVC outer sheath, black or blue
- Galvanized steel wire amoured

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000104

Core identification code
Pair: black and white
Multipair: black and white with numbers

Conductor stranding
acc. to BS 6360 / IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
500 V
< 50 VAC / < 75 VDC for Intrinsically Safe (IS) circuits application

Temperature range
-30°C to +105°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INSTRUM RE-Y(ST)YRY PiMF					
1271600	2x2x0.5	15.4	black	33.6	116
1271601	2x2x0.5	15.4	blue	33.6	116
1271624	3x2x0.5	16.0	black	48.0	155
1271625	3x2x0.5	16.0	blue	48.0	155
1271602	4x2x0.5	17.7	black	62.4	202
1271603	4x2x0.5	17.7	blue	62.4	202
1271626	5x2x0.5	19.1	black	76.8	238
1271627	5x2x0.5	19.1	blue	76.8	238
1271604	6x2x0.5	20.2	black	91.2	275
1271605	6x2x0.5	20.2	blue	91.2	275
1271606	8x2x0.5	22.3	black	120.0	336
1271607	8x2x0.5	22.3	blue	120.0	336
1271608	10x2x0.5	25.3	black	148.8	418
1271609	10x2x0.5	25.3	blue	148.8	418
1271610	12x2x0.5	26.1	black	177.6	490
1271611	12x2x0.5	26.1	blue	177.6	490
1271630	2x2x0.75	16.1	black	43.2	451
1271631	2x2x0.75	16.1	blue	43.2	451
1271654	3x2x0.75	17.5	black	62.4	565
1271655	3x2x0.75	17.5	blue	62.4	565
1271632	4x2x0.75	19.0	black	81.6	717
1271633	4x2x0.75	19.0	blue	81.6	717
1271656	5x2x0.75	20.1	black	100.8	838
1271657	5x2x0.75	20.1	blue	100.8	838
1271634	6x2x0.75	21.6	black	120.0	952
1271635	6x2x0.75	21.6	blue	120.0	952
1271636	8x2x0.75	24.3	black	158.4	1,084
1271637	8x2x0.75	24.3	blue	158.4	1,084
1271638	10x2x0.75	27.0	black	196.8	1,458
1271639	10x2x0.75	27.0	blue	196.8	1,458
1271640	12x2x0.75	27.9	black	235.2	1,612
1271641	12x2x0.75	27.9	blue	235.2	1,612
1271680	2x2x1.0	17.5	black	52.8	564
1271681	2x2x1.0	17.5	blue	52.8	564
1271704	3x2x1.0	18.6	black	76.8	710
1271705	3x2x1.0	18.6	blue	76.8	710
1271682	4x2x1.0	19.7	black	100.8	879
1271683	4x2x1.0	19.7	blue	100.8	879
1271706	5x2x1.0	21.0	black	124.8	998
1271707	5x2x1.0	21.0	blue	124.8	998

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
1271684	6x2x1.0	23.5	black	148.8	1,189
1271685	6x2x1.0	23.5	blue	148.8	1,189
1271686	8x2x1.0	25.9	black	196.8	1,354
1271687	8x2x1.0	25.9	blue	196.8	1,354
1271688	10x2x1.0	28.5	black	244.8	1,822
1271689	10x2x1.0	28.5	blue	244.8	1,822
1271690	12x2x1.0	29.4	black	292.8	2,014
1271691	12x2x1.0	29.4	blue	292.8	2,014
1271720	2x2x1.5	19.0	black	72.0	644
1271721	2x2x1.5	19.0	blue	72.0	644
1271746	3x2x1.5	19.8	black	105.6	788
1271747	3x2x1.5	19.8	blue	105.6	788
1271722	4x2x1.5	21.3	black	139.2	970
1271723	4x2x1.5	21.3	blue	139.2	970
1271742	5x2x1.5	23.6	black	172.8	11,28
1271743	5x2x1.5	23.6	blue	172.8	1,128
1271724	6x2x1.5	25.3	black	206.4	1,315
1271725	6x2x1.5	25.3	blue	206.4	1,315
1271726	8x2x1.5	27.9	black	273.6	1,584
1271727	8x2x1.5	27.9	blue	273.6	1,584
1271728	10x2x1.5	31.1	black	340.8	1,865
1271729	10x2x1.5	31.1	blue	340.8	1,865
1271730	12x2x1.5	31.9	black	408.0	2,085
1271731	12x2x1.5	31.9	blue	408.0	2,085
1271760	2x2x2.5	21.4	black	110.4	803
1271761	2x2x2.5	21.4	blue	110.4	803
1271784	3x2x2.5	22.6	black	163.2	956
1271785	3x2x2.5	22.6	blue	163.2	956
1271762	4x2x25	25.1	black	216.0	1,139
1271763	4x2x2.5	25.1	blue	216.0	1,139
1271786	5x2x2.5	27.0	black	268.8	1,386
1271787	5x2x2.5	27.0	blue	268.8	1,386
1271764	6x2x2.5	29.0	black	321.6	1,705
1271765	6x2x2.5	29.0	blue	321.6	1,705
1271766	8x2x2.5	32.2	black	427.2	1,997
1271767	8x2x2.5	32.2	blue	427.2	1,997
1271768	10x2x2.5	37.0	black	532.8	2,376
1271769	10x2x2.5	37.0	blue	532.8	2,376
1271770	12x2x2.5	38.1	black	638.4	2,717
1271771	12x2x2.5	38.1	blue	638.4	2,717

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ÖLFLEX® VSD ULTRA YSLCY

EMC-optimised cable for variable speed drives, double screened

Info

- Rated voltage U0 /U: 0.6/1 kV

Benefits

- High power transmission for large drives
- Symmetrical 3+3 Version supports the reduction of damaging bearing currents
- Suitable for outdoor use

Application range

- Connecting cable between frequency converter and motor
- In dry, damp or wet interiors

Product features

- Flame-retardant according IEC 60332-1-2

Norms references / Approvals

- Based on VDE 0276-603, HD 603 S1, AS/NZS 5000.1

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: PVC
- Cores twisted concentrically (symmetrically splitted protective conductor of 3+3 version is gusset-filling divided between the power cores)
- Screening: wrapping of copper foil in combination with tinned copper braiding
- PVC outer sheath, black

Technical data

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
U_0/U: 0.6/1kV

Test voltage
4000 V

Temperature range
Fixed installation: -15°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® VSD ULTRA YSLCY / 4-core version				
3804244A	4 G 1	11.7	87.4	202
3804245A	4 G 1.5	12.3	112.4	231
3804246A	4 G 2.5	13.6	157.6	291
3804247A	4 G 4	16.0	224.3	407
3804248A	4 G 6	17.4	318.2	505
3804249A	4 G 10	20.5	534.6	750
3804250A	4 G 16	23.1	756.8	999
3804251A	4 G 25	27.6	1,128.7	1,455
3804252A	4 G 35	30.7	1,571.8	1,943
ÖLFLEX® VSD ULTRA YSLCY / 3+3 split earth version				
3804269A	3x6 + 3G1.5	17.5	303.9	570
3804261A	3x10 + 3G1.5	19.0	449.9	739
3804270A	3x16 + 3G2.5	21.5	673.5	1,004
3804263A	3x25 + 3G4	25.2	1,006.0	1,466
3804264A	3x35 + 3G6	28.3	1,404.2	1,913
3804265A	3x50 + 3G10	33.4	2,000.6	2,688

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ÖLFLEX® FIRE 6387 SC

Fire resistant cables

Info

- Fire test certified to BS 6387 Cat. CWZ
- Single-core power cable, 0.6/1 kV

Application range

- Specially designed to be use for wiring applications in critical life safety system in public and industrial buildings such as airports, hotels, hospitals, subways, train stations, etc.
- In building management systems, emergency lightings, standby power supplies, lifts and elevators
- Plant engineering and construction, industrial machinery, power station

Product features

- Flame retardant acc. to IEC 60332-1-2 and to IEC 60332-3-22
- Halogen free acc. to IEC 60754-1
- Acid and corrosive gases acc. to IEC 60754-2
- Smoke density test acc. to IEC 61034

Norm references / Approvals

- Fire test certified to BS 6387 Cat. CWZ
- Approved to IEC 60332-3-22 Cat. A

Product Make-up

- Stranded plain annealed copper wire
- Mica based fire resistance tape
- LSHF insulation - flame retardant
- Colour: orange

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-15°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FIRE 6387 SC				
3806501	1	3.8	9.6	25
3806502	1.5	4.1	14.4	32
3806503	2.5	4.6	24.0	44
3806504	4	5.3	38.4	64
3806505	6	5.9	57.6	88
3806506	10	6.8	96.0	131
3806507	16	8.1	153.6	196
3806508	25	9.4	240.0	289
3806509	35	10.7	336.0	394
3806510	50	12.3	480.0	545
3806511	70	14.2	672.0	752
3806512	95	16.0	912.0	992
3806513	120	17.8	1,152.0	1,243
3806514	150	19.7	1,440.0	1,543
3806515	185	21.6	1,776.0	1,889
3806516	240	24.3	2,304.0	2,438
3806517	300	26.9	2,880.0	3,017

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ÖLFLEX® FIRE 6387 SC TWISTED

Fire resistant cables

Info

- Fire test certified to BS 6387 Cat. CWZ, reference to FR-6387 SC 1x1.5mm², PN: 3806502
- 2 single-core wire twisted, 0.6/1kV

Application range

- Specially designed to be use for wiring applications in critical life safety system in public and industrial buildings such as airports, hotels, hospitals, subways, train stations, etc.
- In building management systems, emergency lightings, standby power supplies, lifts and elevators

Product features

- Flame retardant acc. to IEC 60332-1-2 and to IEC 60332-3-22
- Halogen free acc. to IEC 60754-1
- Acid and corrosive gases acc. to IEC 60754-2
- Smoke density test acc. to IEC 61034

Norm references / Approvals

- Fire test certified to BS 6387 Cat. CWZ, reference to FR-6387 SC 1x1.5mm², PN: 3806502

Product Make-up

- Stranded plain annealed copper wire
- Mica based fire resistance tape
- LSHF insulation - flame retardant
- 2 single-core wire twisted together
- Colour: Black/Red

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-15°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FIRE 6387 SC TWISTED				
3804079	2x (1x1.5) Twisted	8.2	28.8	64

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- Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® FIRE 6387 OS

Fire resistant cables

Info

- Fire test certified to BS 6387 Cat. CWZ
- Instrumentation cable, 300/500 V

Application range

- Specially designed to be use for wiring applications in critical life safety system in public and industrial buildings such as airports, hotels, hospitals, subways, train stations, etc.
- In building management systems, emergency lightings, standby power supplies, lifts and elevators
- Plant engineering and construction, industrial machinery, power station

Product features

- Flame retardant acc. to IEC 60332-1-2 and to IEC 60332-3-22
- Halogen free acc. to IEC 60754-1
- Acid and corrosive gases acc. to IEC 60754-2
- Smoke density test acc. to IEC 61034

Norm references / Approvals

- Fire test certified to BS 6387 Cat. CWZ
- Approved to IEC 60332-3-22 Cat. A

Product Make-up

- Stranded plain annealed copper wire
- Mica based fire resistance tape
- XLPE insulation
- Mylar tape wrapping
- Aluminium/mylar tape screen in contact with drain wire
- LSHF outer sheath
- Colour: orange

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Core identificarion code
Pair: BK/RD or BU/BN
Multipair: BK/WH with numbering
Multicore: 3C and above WH with numbering

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 300/500 V

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FIRE 6387 OS					
3805860	1 x 2 x 1.0	7.8	BK/RD	24.0	75
3805861	1 x 2 x 1.0	7.8	BU/BN	24.0	75
3805862	2 x 2 x 1.0	11.4	WH/BK	43.2	132
3805863	3 x 2 x 1.0	13.0	WH/BK	62.4	172
3805864	4 x 2 x 1.0	14.8	WH/BK	81.6	218
3805865	6 x 2 x 1.0	17.8	WH/BK	120.0	310
3805866	8 x 2 x 1.0	20.3	WH/BK	158.4	406
3805867	10 x 2 x 1.0	22.5	WH/BK	196.8	492
3805868	12 x 2 x 1.0	24.5	WH/BK	235.2	574
3805869	15 x 2 x 1.0	27.2	WH/BK	292.8	711
3805870	20 x 2 x 1.0	31.1	WH/BK	388.8	925
3805971	24 x 2 x 1.0	34.0	WH/BK	465.6	1,094
3805880	1 x 2 x 1.5	8.4	BK/RD	33.6	89
3805881	1 x 2 x 1.5	8.4	BU/BN	33.6	89
3805882	2 x 2 x 1.5	12.3	WH/BK	62.4	163
3805883	3 x 2 x 1.5	14.2	WH/BK	91.2	216
3805884	4 x 2 x 1.5	16.1	WH/BK	120.0	277
3805885	6 x 2 x 1.5	19.4	WH/BK	177.6	396
3805886	8 x 2 x 1.5	22.1	WH/BK	235.2	520
3805887	10 x 2 x 1.5	24.6	WH/BK	292.8	634
3805888	12 x 2 x 1.5	26.8	WH/BK	350.4	743
3805889	15 x 2 x 1.5	29.7	WH/BK	436.8	921
3805890	20 x 2 x 1.5	34.1	WH/BK	580.8	1,203
3805891	24 x 2 x 1.5	37.2	WH/BK	696.0	1,426
3805900	1 x 2 x 2.5	10.3	BK/RD	52.8	123
3805901	1 x 2 x 2.5	10.3	BU/BN	52.8	123
3805902	2 x 2 x 2.5	14.7	WH/BK	100.8	231
3805903	3 x 2 x 2.5	17.0	WH/BK	148.8	314
3805904	4 x 2 x 2.5	19.4	WH/BK	196.8	405
3805905	6 x 2 x 2.5	23.4	WH/BK	292.8	585
3805906	8 x 2 x 2.5	26.8	WH/BK	388.8	768
3805907	10 x 2 x 2.5	29.7	WH/BK	484.8	942
3805908	12 x 2 x 2.5	32.4	WH/BK	580.8	1,111
3805909	15 x 2 x 2.5	36.1	WH/BK	724.8	1,378
3805910	20 x 2 x 2.5	41.4	WH/BK	964.8	1,809
3805911	24 x 2 x 2.5	45.2	WH/BK	1,156.8	2,150

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
3805921	2 X 1.0	7.8	BK/RD	24.0	75
3805922	2 X 1.0	7.8	BU/BN	24.0	75
3805923	3 X 1.0	8.6	WH	33.6	93
3805924	4 X 1.0	9.4	WH	43.2	113
3805925	5 X 1.0	10.3	WH	52.8	140
3805926	7 X 1.0	11.3	WH	72.0	175
3805927	8 X 1.0	12.8	WH	81.6	204
3805928	10 X 1.0	14.5	WH	100.8	253
3805929	12 X 1.0	15.1	WH	120.0	285
3805930	14 X 1.0	15.9	WH	139.2	324
3805931	16 X 1.0	16.8	WH	158.4	370
3805932	19 X 1.0	17.8	WH	187.2	422
3805933	24 X 1.0	21.0	WH	235.2	540
3805941	2 X 1.5	8.4	BK/RD	33.6	89
3805942	2 X 1.5	8.4	BU/BN	33.6	89
3805943	3 X 1.5	9.3	WH	48.0	114
3805944	4 X 1.5	10.2	WH	62.4	142
3805945	5 X 1.5	11.2	WH	76.8	177
3805946	7 X 1.5	12.3	WH	105.6	223
3805947	8 X 1.5	13.9	WH	120.0	260
3805948	10 X 1.5	15.8	WH	148.8	323
3805949	12 X 1.5	16.4	WH	177.6	367
3805950	14 X 1.5	17.3	WH	206.4	419
3805951	16 X 1.5	18.3	WH	235.2	479
3805952	19 X 1.5	19.4	WH	278.4	549
3805953	24 X 1.5	23.0	WH	350.4	697
3805961	2 X 2.5	10.3	BK/RD	52.8	123
3805962	2 X 2.5	10.3	BU/BN	52.8	123
3805963	3 X 2.5	11.0	WH	76.8	162
3805964	4 X 2.5	12.1	WH	100.8	204
3805965	5 X 2.5	13.4	WH	124.8	257
3805966	7 X 2.5	14.7	WH	172.8	327
3805967	8 X 2.5	16.6	WH	196.8	381
3805968	10 X 2.5	19.0	WH	224.8	474
3805969	12 X 2.5	19.7	WH	292.8	545
3805970	14 X 2.5	20.8	WH	340.8	624
3805971	16 X 2.5	22.1	WH	388.8	715
3805972	19 X 2.5	23.4	WH	460.8	823
3805973	24 X 2.5	27.8	WH	580.0	1,051

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ÖLFLEX® FIRE 6387 MC

Fire resistant cables

Info

- Fire test certified to BS 6387 Cat. CWZ
- Multicore power cable, 0.6/1 kV

Application range

- Specially designed to be use for wiring applications in critical life safety system in public and industrial buildings such as airports, hotels, hospitals, subways, train stations, etc.
- In building management systems, emergency lightings, standby power supplies, lifts and elevators
- Plant engineering and construction, industrial machinery, power station

Product features

- Flame retardant acc. to IEC 60332-1-2 and to IEC 60332-3-22
- Halogen free acc. to IEC 60754-1
- Acid and corrosive gases acc. to IEC 60754-2
- Smoke density test acc. to IEC 61034

Norm references / Approvals

- Fire test certified to BS 6387 Cat. CWZ
- Approved to IEC 60332-3-22 Cat. A

Product Make-up

- Stranded plain annealed copper wire
- Mica based fire resistance tape
- XLPE insulation
- LSHF outer sheath
- Colour: orange

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-30°C to 90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FIRE 6387 MC				
3806521	2 X 1.5	10.0	28.8	126
3806522	2 X 2.5	10.9	48.0	160
3806523	2 X 4	12.3	76.8	218
3806524	2 X 6	13.6	115.2	285
3806525	2 X 10	15.5	192.0	404
3806526	2 X 16	17.8	307.2	573
3806527	2 X 25	21.4	480.0	852
3806531	3 X 1.5	10.7	43.2	151
3806532	3 X 2.5	11.6	72.0	195
3806533	3 X 4	13.2	115.2	270
3806534	3 X 6	14.5	172.8	359
3806535	3 X 10	16.6	288.0	520
3806536	3 X 16	19.1	460.8	748
3806537	3 X 25	23.0	720.0	1,120
3806541	4 X 1.5	11.7	57.6	181
3806542	4 X 2.5	12.8	96.0	236
3806543	4 X 4	14.5	153.6	332
3806544	4 X 6	16.0	230.4	445
3806545	4 X 10	18.4	384.0	650
3806546	4 X 16	21.1	614.4	942
3806547	4 X 25	25.4	960.0	1,416
3806551	5 X 1.5	12.8	72.0	215
3806552	5 X 2.5	14.1	120.0	283
3806553	5 X 4	16.0	192.0	399
3806554	5 X 6	17.7	288.0	538
3806555	5 X 10	20.3	480.0	790
3806556	5 X 16	23.3	768.0	1,149
3806557	5 X 25	28.1	1,200.0	1,732

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ÖLFLEX® FIRE 6387 MC CONTROL

Fire resistant cables

Info

- Fire test certified to BS 6387 Cat. CWZ
- Multicore control cable, 300/500 V

Application range

- Specially designed to be use for wiring applications in critical life safety system in public and industrial buildings such as airports, hotels, hospitals, subways, train stations, etc.
- In building management systems, emergency lightings, standby power supplies, lifts and elevators
- Plant engineering and construction, industrial machinery, power station

Product features

- Flame retardant acc. to IEC 60332-1-2 and to IEC 60332-3-22
- Halogen free acc. to IEC 60754-1
- Acid and corrosive gases acc. to IEC 60754-2
- Smoke density test acc. to IEC 61034

Norm references / Approvals

- Fire test certified to BS 6387 Cat. CWZ
- Approved to IEC 60332-3-22 Cat. A

Product Make-up

- Stranded plain annealed copper wire
- Mica based fire resistance tape
- XLPE insulation
- Mylar tape wrapping
- Binder tape
- LSHF outer sheath
- Colour: orange

Technical data

Classification
ETIM 5.0 Class-Description: Control cable
ETIM 5.0 Class-ID: EC000104

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 300/500 V

Temperature range
-30°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FIRE 6387 MC CONTROL					
3806560	2 X 1.0	7.8	BK/RD	19.2	69
3806561	2 X 1.0	7.8	BK/WH	19.2	69
3806562	2 X 1.0	7.8	BU/BN	19.2	69
3806563	3 X 1.0	8.8	BN/BK/GY	28.8	88
3806564	4 X 1.0	9.6	BU/BN/BK/GY	38.4	110
3806565	5 X 1.0	10.5	GNYE/BU/BN/BK/GY	48.0	136
3806566	7 X 1.0	11.5	WH	67.2	170
3806567	8 X 1.0	13.0	WH	76.8	199
3806568	10 X 1.0	14.8	WH	96.0	255
3806569	12 X 1.0	15.3	WH	115.2	281
3806570	14 X 1.0	16.2	WH	134.4	321
3806571	16 X 1.0	17.1	WH	153.6	367
3806572	19 X 1.0	18.1	WH	182.4	420
3806573	24 X 1.0	21.4	WH	230.4	545
3806580	2 X 1.5	8.4	BK/RD	28.8	88
3806581	2 X 1.5	8.4	BK/WH	28.8	88
3806582	2 X 1.5	8.4	BU/BN	28.8	88
3806583	3 X 1.5	9.9	BN/BK/GY	43.2	115
3806584	4 X 1.5	10.9	BU/BN/BK/GY	57.6	147
3806585	5 X 1.5	12.0	GNYE/BU/BN/BK/GY	72.0	182
3806586	7 X 1.5	13.1	WH	100.8	230
3806587	8 X 1.5	14.8	WH	115.2	268
3806588	10 X 1.5	17.0	WH	144.0	346
3806589	12 X 1.5	17.6	WH	172.8	383
3806590	14 X 1.5	18.5	WH	201.6	438
3806591	16 X 1.5	19.6	WH	230.4	502
3806592	19 X 1.5	20.8	WH	273.6	576
3806593	24 X 1.5	24.6	WH	345.6	749
3806600	2 X 2.5	10.5	BK/RD	48.0	118
3806601	2 X 2.5	10.5	BK/WH	48.0	118
3806602	2 X 2.5	10.5	BU/BN	48.0	118
3806603	3 X 2.5	11.2	BN/BK/GY	72.0	157
3806604	4 X 2.5	12.3	BU/BN/BK/GY	96.0	203
3806605	5 X 2.5	13.5	GNYE/BU/BN/BK/GY	120.0	253
3806606	7 X 2.5	14.9	WH	168.0	322
3806607	8 X 2.5	16.9	WH	192.0	376
3806608	10 X 2.5	19.3	WH	240.0	485
3806609	12 X 2.5	20.0	WH	288.0	541
3806610	14 X 2.5	21.1	WH	336.0	621
3806611	16 X 2.5	22.4	WH	384.0	713
3806612	19 X 2.5	23.7	WH	456.0	821
3806613	24 X 2.5	28.1	WH	576.0	1,066

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ÖLFLEX® CLEANROOM FD 8110

Info

- Low voltage power and control cable for CLEANROOM
- Stranded copper conductor according to IEC60228 Cl.6
- Unarmoured, PVC Insulation, PVC Outer sheath cable

Benefits

- Cost-effective solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Well-proven and reliable

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and requlating circuits
- Assembly lines, production lines, in all kinds of machines
- CLEANROOM

Norm references / Approvals

- CLEANROOM classification for IPA Class 1

Product features

- Flame retardant according to IEC 60332-1-2
- Low-adhesive surface
- Power Chain application

Product Make-up

- Conductor : Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation : Polyvinyl Chloride
- Core insulation colour : Black
- Outer sheath : Polyvinyl Chloride
- Outer sheath colour : Black

Technical data

Conductor stranding
Stranded made of bare copper wire (Design acc.to IEC60228 Cl.6)

Minimum bending radius
For flexible use: 7.5 x outer diameter
Fixed installation: 4 x cable diameter

Rated voltage
300/500 V

Test voltage
4000 V

Temperature range
Flexing: 0°C up to +70 °C
Fixed installation: -40°C up to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLEANROOM FD 8110				
85130000	2 X 0.5	5.0	10.0	30
85130001	3 G 0.5	5.3	14.0	38
85130002	4 G 0.5	5.7	19.0	48
85130003	5 G 0.5	6.2	24.0	58
85130004	7 G 0.5	7.3	34.0	82
85130005	10 G 0.5	9.0	48.0	129
85130006	12 G 0.5	10.1	58.0	124
85130007	18 G 0.5	13.6	86.0	192
85130008	2 X 0.75	5.5	14.0	37
85130009	3 G 0.75	5.8	22.0	48
85130010	4 G 0.75	6.3	29.0	61
85130011	5 G 0.75	6.8	36.0	75
85130012	7 G 0.75	8.2	50.0	110
85130013	12 G 0.75	11.4	86.0	167
85130014	15 G 0.75	12.1	108.0	195
85130015	16 G 0.75	14.0	115.0	228
85130016	18 G 0.75	15.2	130.0	257
85130017	2 X 1.0	5.8	19.0	44
85130018	3 G 1.0	6.1	29.0	57
85130019	4 G 1.0	6.6	38.0	74
85130020	5 G 1.0	7.2	48.0	91
85130021	7 G 1.0	8.7	67.0	133
85130022	12 G 1.0	12.2	115.0	203
85130023	14 G 1.0	13.7	134.0	242
85130024	16 G 1.0	15.0	154.0	277
85130025	18 X 10	16.5	173.0	320
85130026	2 X 1.5	6.5	29.0	59

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
85130027	3 G 1.5	6.9	43.0	78
85130028	4 G 1.5	7.5	58.0	101
85130029	5 G 1.5	8.4	72.0	128
85130030	7 G 1.5	10.0	101.0	186
85130031	9 G 1.5	11.7	130.0	252
85130032	12 G 1.5	13.9	173.0	285
85130033	16 G 1.5	17.1	230.0	386
85130034	18 G 1.5	18.8	259.0	444
85130035	3 G 2.5	8.9	72.0	127
85130036	4 G 2.5	9.8	96.0	164
85130037	5 G 2.5	10.9	120.0	208
85130038	7 G 2.5	13.2	168.0	307
85130039	12 G 2.5	18.5	288.0	471
85130040	14 G 2.5	20.7	336.0	557
85130041	18 G 2.5	25.0	432.0	729
85130042	3 G 4.0	10.4	115.0	185
85130043	4 G 4.0	11.4	154.0	240
85130044	5 G 4.0	12.7	192.0	304
85130045	4 G 6.0	13.9	230.0	356
85130046	5 G 6.0	15.4	288.0	449
85130047	7 G 6.0	18.6	403.0	656
85130048	4 G 10.0	17.2	384.0	569
85130049	5 G 10.0	19.1	480.0	718
85130050	4 G 16.0	20.5	614.0	851
85130051	5 G 16.0	22.9	768.0	1,085
85130053	4 G 25.0	25.9	960.0	1,355
85130052	3 G 35.0	25.7	1,008.0	1,316

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ÖLFLEX® CLEANROOM FD 8110 C

Info

- Low voltage power and control cable for CLEANROOM
- Stranded copper conductor according to IEC60228 Cl.6
- Sheidled, PVC Insulation, PVC Outer sheath cable

Benefits

- Cost-effective solution
- Zero particle emission at moved chain application
- Easy installation due to small cable diameter
- Well-proven and reliable

Application range

- In power chains or moving machine parts
- Suitable for use in measuring, control and requlating circuits
- Assembly lines, production lines, in all kinds of machines
- CLEANROOM

Norm references / Approvals

- CLEANROOM classification for IPA Class 1

Product features

- Flame retardant according to IEC 60332-1-2
- Low-adhesive surface
- Designed for travel distances up to 10 meters, traval speeds up to 10 m/s

Product Make-up

- Conductor : Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation : Polyvinyl Chloride
- Core insulation colour : Black
- Tinned-copper braiding
- Outer sheath : Polyvinyl Chloride
- Outer sheath colour : Black

Technical data

Conductor stranding
Stranded made of bare copper wire (Design acc.to IEC60228 Cl.6)

Minimum bending radius
For flexible use: 7.5 x outer diameter
Fixed installation: 4 x cable diameter

Rated voltage
300/500 V

Test voltage
4000 V

Temperature range
Flexing: 0°C up to +70 °C
Fixed installation: -40°C up to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CLEANROOM FD 8110 C				
85130100	2 X 0.5	6.9	29.0	83
85130101	3 G 0.5	7.3	35.0	97
85130102	4 G 0.5	7.9	40.0	113
85130103	5 G 0.5	8.4	48.0	130
85130104	7 G 0.5	9.8	62.0	177
85130105	12 G 0.5	11.3	100.0	219
85130106	18 G 0.5	13.4	154.0	287
85130107	2 X 0.75	7.3	36.0	95
85130108	3 G 0.75	7.8	43.0	112
85130109	4 G 0.75	8.4	52.0	132
85130110	5 G 0.75	9.0	62.0	153
85130111	7 G 0.75	10.7	83.0	216
85130112	12 G 0.75	12.4	132.0	267
85130113	16 G 0.75	14.2	186.0	344
85130114	18 G 0.75	14.9	213.0	373
85130115	2 X 1.0	7.7	41.0	105
85130116	3 G 1.0	8.2	51.0	126
85130117	4 G 1.0	8.9	64.0	152
85130118	5 G 1.0	9.8	77.0	186
85130119	7 G 1.0	11.4	101.0	249
85130120	12 G 1.0	13.4	178.0	331
85130121	16 G 1.0	15.2	228.0	401
85130122	18 G 1.0	16.1	261.0	439
85130123	2 X 1.5	8.4	53.0	127

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
85130124	3 G 1.5	9.0	69.0	155
85130125	4 G 1.5	9.9	86.0	194
85130126	5 G 1.5	10.9	104.0	235
85130127	7 G 1.5	12.7	140.0	318
85130128	12 G 1.5	15.1	242.0	433
85130129	17 G 1.5	16.8	173.0	512
85130130	18 G 1.5	17.8	353.0	551
85130131	3 G 2.5	10.8	105.0	223
85130132	4 G 2.5	11.8	136.0	276
85130133	5 G 2.5	13.2	177.0	354
85130134	7 G 2.5	15.8	241.0	501
85130135	9 G 2.5	18.1	289.0	604
85130136	12 G 2.5	18.2	385.0	609
85130137	14 G 2.5	19.8	481.0	728
85130138	3 G 4.0	11.4	168.0	351
85130139	4 G 4.0	13.7	213.0	438
85130140	5 G 4.0	15.3	256.0	424
85130146	4 G 6.0	16.1	299.0	474
85130147	5 G 6.0	17.7	363.0	579
85130141	4 G 10.0	20.2	491.0	858
85130142	5 G 10.0	22.2	599.0	1043
85130143	4 G 16.0	23.6	738.0	1198
85130144	5 G 16.0	26.6	932.0	1539
85130145	4 G 25.0	28.2	1145.0	1788

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NEW

ÖLFLEX® AUTO 8681 MC

Info

- Core Line Performance - Medium to increased travel lengths or acceleration
- Oil resistant and abrasion-proof
- Proven properties for moving and torsion
- Torsion angle up to ±180°

Benefits

- Well-proven and reliable
- Various applications
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oilbased lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Power circuits for electrical equipments used in automation engineering
- Assembly lines, production lines, in all kinds of machines
- In dry, damp or wet interiors with normal mechanical stress conditions

Product features

- Flame-retardant according IEC 60332-1-2
- High oil-resistance
- Abrasion and notch-resistant
- Low adhesive surface

Norm references / Approvals

- Core and outer sheath based on : EN 50363-7 / EN 50363-10-2

Product Make-up

- Extra-fi ne wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Non-woven wrapping
- PUR outer sheath, Black or Yellow

Technical data

Conductor stranding
Fine wire strands of bare copper accordance to VDE 0295 Class 6 / IEC 60228 Class 6

Nominal voltage
U_0/U : 300/500V

Test voltage
AC 3000 V

Torsion
Torsion load max. ±180°/m

Lift
Max. Vertical moving length for lift application: 30m

Chain
Max. Parallel moving length for chain application : 30m

Minimum bending radius
Flexible use : 5 x outer diameter

Temperature range
Flexible use : -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® AUTO 8681 MC				
85189001	7x0.5	7.6	34	65
85189002	12x0.5	9.3	58	105
85189003	18x0.5	10.9	86	153
85189004	25x0.5	13	120	206
85189021	7x0.75	8.5	50	89
85189022	12x0.75	10.4	86	143
85189023	18x0.75	12.2	130	208
85189024	25x0.75	15	180	293
85189041	7x1.0	9.1	67	107
85189042	12x1.0	11	115	173
85189043	18x1.0	13.2	173	257
85189044	25x1.0	16	240	356
85189061	7x1.5	10.4	101	148
85189062	12x1.5	12.6	173	239
85189063	18x1.5	14.8	259	347
85189064	25x1.5	18.1	360	487

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CE

NEW

ÖLFLEX® DC ESS SC

Cable best designed for ESS satisfying DC 1500V Standards According to EN50618

Info

- ESS FLEX is a halogen free, highly flame retardant DC power cable for use within ESS system
- Improved characteristics in the event of a fire

Benefits

- Easy installation due to flexible design
- Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
- Reduction of flame propagation, density and toxicity of smoke gases in event of fire

Application range

- Internal and External wiring within Energy Storage System(ESS)
- For outdoor applications

Product features

- Fire behaviour:
  - Halogen-free (IEC 60754-1)
  - No corrosive gases (IEC 60754-2)
  - Low smoke density (IEC 61034-2)
  - Low toxicity (EN 50305)
  - Flame retardant (IEC 60332-1-2)
- No flame propagation according to IEC 60332-3-24, IEC 60332-3-25
- Oil resistant acc. IEC 60227-1 (ST9) and EN 50264-1 (EM 104)
- Ozone resistant according to EN 50396
- UV resistant according to ISO 4892-2

Norm references / Approvals

- Cable design according to EN 50618

Product Make-up

- Fine wire strands of tinned copper
- Core insulation: Halogen-free flame retardant cross-linked polyolefin compound
- Outer sheath: Special halogen-free flame retardant cross-linked polyolefin compound
- Outer sheath colour: Black

Technical data

Conductor stranding
Fine wire strands of tinned copper accordance to VDE 0295 Class 5 / IEC 60228 Class 5

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 5 x outer diameter

Rated voltage
DC 1500V

Test voltage
AC 6500V

Temperature range
Fixed installation: -40°C to +120°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® DC ESS SC				
85153001	1x1.5	4.6	14	37
85153002	1x2.5	5	24	49
85153003	1x4	5.4	38	68
85153004	1x6	6	58	91
85153005	1x10	7.2	96	136
85153006	1x16	8.7	154	217
85153007	1x25	10.6	240	332
85153008	1x35	12.2	336	452
85153009	1x50	14.4	480	623
85153010	1x70	16.4	672	847
85153011	1x95	18.4	912	1123
85153012	1x120	20.2	1152	1397
85153013	1x150	22.4	1440	1744
85153014	1x185	25.2	1776	2164
85153015	1x240	28.6	2304	2760
85153016	1x300	32	2880	3467
85153017	1x400	36	3840	4533

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ÖLFLEX® DC ESS SC U

Info

- High electrical performance due to 3 kV
- Halogen free, flame retardant DC power cable
- For use within ESS system
- Improved characteristics in the event of a fire

Benefits

- Easy installation due to flexible design
- Minimises damage to buildings and equipment caused by the formation of toxic acid fumes in fires
- Reduction of flme propagation, density and toxicity of smoke gases in event of fire

Application range

- Wiring within Energy Storage System(ESS)

Norm references / Approvals

- UL AWM Style 3817

Product features

- UV resistance
- Fire behaviour:
  - Halogen-free (IEC 60754-1)
  - No corrosive gases (IEC 60754-2)
  - Low smoke density (IEC 61034-2)
  - Low toxicity (EN 50305)
  - Flame retardant (IEC 60332-1-2), UL VW-1

Product Make-up

- Fine wire strands of tinned copper
- Core insulation: Halogen-free flame retardant cross-linked polyolefin compound
- Colour: Black

Technical data

Conductor stranding
Fine wire strands of tinned copper accordance to VDE 0295 Class 5 / IEC 60228 Class 5

Rated voltage
3000 V

Test voltage
7000 V

Minimum bending radius
Occasional flexing: 15 x outer diameter
Fixed installation: 5 x outer diameter

Temperature range
Fixed installation: up to +125°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® DC ESS SC U				
85155001	16AWG	3.1	13	19
85155002	14AWG	3.5	20	28
85155003	12AWG	4.0	32	41
85155004	10AWG	4.6	51	62
85155005	8AWG	6.8	82	105
85155006	6AWG	7.9	130	158
85155007	4AWG	9.5	204	239
85155008	2AWG	12.0	324	382
85155031	1AWG	13.0	407	472
85155009	1/0AWG	15.0	517	617
85155010	2/0AWG	16.5	647	756
85155011	3/0AWG	18.0	813	934
85155012	4/0AWG	19.8	1,026	1,160
85155026	250kcmil	20.4	1,224	1,369
85155030	400kcmil	26.1	1,949	2,163
85155013	1.5 (16AWG)	3.1	14	21
85155014	2.5 (14AWG)	3.5	24	32
85155015	4 (12AWG)	4.0	38	48
85155016	6 (10AWG)	4.6	58	69
85155018	10 (8AWG)	6.4	96	119
85155019	16 (6AWG)	8.0	154	183
85155020	25 (4AWG)	9.3	240	275
85155021	50 (1AWG)	14.3	480	574
85155022	70 (2/0AWG)	16.5	672	780
85155017	95 (3/0AWG)	18.1	912	1,035
85155023	120 (4/0AWG)	19.7	1,152	1,287
85155024	150 (300kcmil)	22.2	1,440	1,618
85155027	185 (350kcmil)	24.0	1,776	1,972
85155025	240 (450kcmil)	27.3	2,304	2,537
85155028	300 (600kcmil)	30.0	2,880	3,139
85155029	400 (800kcmil)	33.8	3,840	4,135

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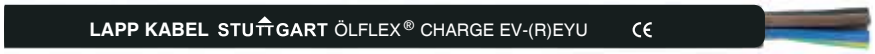
ÖLFLEX® CHARGE EV-(R)EYU

Info

- DEKRA & CQC approvals
- Oil resistant, chemical resistant
- UV & Ozone resistant
- Scraping and grinding resistant
- Halogen free and flame retardant



Benefits

- Multi-standard certification offers universal application range
- Mechanical stress resistant, weather resistant, low temperature resistant, oil resistant, halogen-free, ozone and UV resistant

Application range

- For conductive AC charging system of electric vehicle
- For charging electric vehicles and electric plug-in hybrid vehicles
- Suitable for indoor and outdoor use

Product features

- Flame-retardant acc. to IEC 60332-1-2
- Halogen-free acc. to EN 50525-1 annex B, IEC 62821-1 appendix B
- UV resistance acc. to EN ISO 4892-2, method A, IEC 62893-2/5.2, DEKRA K175-1/3.6, GB/T 33594/11.5.3
- Ozone resistance acc. to EN 50396/8.1.3
- Water resistant acc. to EN 62893-1, EN 50396/10.3, IEC 62893-2/5.4
- Oil and chemicals resistant acc. to EN 50620 Annex D, IEC 62893-2/5.3, GB/T 33594/11.5.2
- Acid and alkali resistant acc. to EN 50620, DEKRA K175-1/3.2
- Chemical resistant acc. to EN 50620 Annex D, IEC 62893-2/5.3, GB/T 33594/11.5.2
- Scraping and grinding resistance GB/T 33594/11.5.7

Norm references / Approvals

- Cable designed acc. to:
  DEKRA K175-1, type EVC07B1Q0-H(F)
  EN 50620, type：H07BZ5-F
  GB/T 33594, type：EV-(R)EYU
  IEC 62893-3, type：62893 IEC 123

Product Make-up

- Strands of extra-fine bare copper wires acc.to VDE 0295 Class 6/IEC 60228 Class 6
- Core insulation of power cores made of special halogen-free cross-linked elastomer, according to EVI-2 of IEC 62893, EN 50620, DEKRA K175-1, and EY of GB/T 33594
- Core insulation of control cores made of special halogen-free cross-linked elastomer, according to EVI-2 of IEC 62893, EN 50620, DEKRA K175-1, and EY of GB/T 33594
- Stranding: cores are stranded in layers, with non-woven tape wrapping
- Outer heath: Polyurethane compound EVM-1 acc. to IEC 62893, clause 5.2, EN 50620, DEKRA K 175-1, and polyurethane compound U acc. to GB/T 33594
- Outer sheath color: black (RAL 9005), other colors can be provided on request

Technical data

Core identification code
Power cores：according to VDE0293-308
Control cores：red core(s) with black number(s), acc. to VDE 0293-1

Conductor stranding
Strands of extra-fine bare copper wires acc.to VDE 0295 Class 6/IEC 60228 Class 6

Minimum bending radius
Flexing： 7.5 x outer diameter

Nominal voltage
Power cores and control cores:
U_0/U：450/750 V

Test voltage
Power cores: 3500 V AC
Control cores: 1500 V AC

Protective conductor
Always with protective conductor (PE)

Temperature range
Flexing：- 40°C to + 90°C
Maximum permissible conductor temperature：+ 90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® CHARGE EV-(R)EYU				
8301880101	3G2.5+1X0.5	10.0	76.8	170
8301880102	3G6+1X0.5	12.4	177.6	305
8301880103	3G6+1X0.75	12.4	180.0	310
8301880104	5G2.5+1X0.5	12.6	124.8	250
8301880105	5G2.5+4X0.75	14.1	148.8	295
8301880106	5G6+1X0.5	15.5	292.8	470

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ÖLFLEX® SOLAR AL FLEX

Info

- Aluminum conductor According to ISO 6722-2-B
- Lightweight and economical solar cable

Benefits

- Applied to aluminum conductor, which is less expensive than copper conductor
- Easy installation due to light weight aluminum conductor than copper conductor
- Flexible aluminum conductors (class 5 grade) for high workability.
- Use of insulation & sheath compound meeting EN50618, the new TuV certification standard.High durability due to high insulation resistance and thermal stability.

Application range

- For the cabling between the solar modules and as extension cable between the module strings
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks

Product features

- High Weathering & UV-resistance
- High thermal stability
- Halogen-free and flame-resistance
- Acid and alkaline resistance
- Low smoke density

Norm references / Approvals

- Flame retardant according to IEC 60332-1-2
- Halogen free according to EN 50267-2-1/-2 & EN 60684-2
- Ozone resistance according to EN 50396
- Weathering/UV-resistance according to HD 605/A1
- Acid and alkaline resistance according to EN 60811-2-1
- Low smoke density according to EN 61034-2

Product Make-up

- Conductor: Fine wire strands of Aluminum conductor According to ISO 6722-2-B
- Core insulation: Electron beam
- cross-linked Polyolefin (XLPO)
- Core colour: White
- Outer sheath : Electron beam cross-linked Polyolefin (XLPO)
- Outer sheath colour: Black & Black with red or blue stripe

Technical data

Conductor stranding
Fine wire strands of Aluminum conductor According to ISO 6722-2-B

Minimum bending radius
Fixed installation: 5 x cable diameter

Rated voltage
DC U_0 : 1500 V

Test voltage
AC 6500 V

Range of temperature
Fixed installation:
-40° C up to +120 °C
max. conductor temperature

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Conductor Weight (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR AL FLEX				
Core insulation: white / Outer sheath: black				
85120100	4	5.6	12	39
85120101	6	6.2	18	49
85120102	10	7.2	29	67
Core insulation: white / Outer sheath: black with red stripe				
85120103	4	5.6	12	39
85120104	6	6.2	18	49
85120105	10	7.2	29	67
Core insulation: white / Outer sheath: black with blue stripe				
85120106	4	5.6	12	39
85120107	6	6.2	18	49
85120108	10	7.2	29	67

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ÖLFLEX® SOLAR XLR-E

Cross-linked solar cables - type H1Z2Z2-K certified according to EN 50618

Info

- H1Z2Z2-K (code designation according to EN 50618)
- Substitudes previous ÖLFLEX® SOLAR XLR-R

Benefits

- Robust against mechanical impacts
- For outdoor applications
- Extruded colour stripe serves as reverse polarity protection during installation.
- Exact quantity control during installation by meter marking on the cable sheath
- Reduction of flame propagation and of toxic combustion gases in the event of fire

Application range

- For use in photovoltaic-systems with rated voltage 1500 V DC
- For the cabling between the solar modules and as extension cable between the module strings and the DC/AC inverter
- Gable and flat roof photovoltaic systems
- Photovoltaic plants and solar parks
- Not suitable for direct burial, Installation according to IEC 60364-5-52, respectively HD 60364-5-52

Product features

- Halogen-free and flame-retardant
- Weather/UV-resistant acc. to EN 50618, appendix E
- Ozone-resistant according to EN 50396
- XLR-E = X-Linked Radiated-EN Standard Proven electron beam cross-linked quality

Norm references / Approvals

- H1Z2Z2-K (code designation according to EN 50618)
- Items with other cross-sections on request

Product Make-up

- Fine-wire, tinned-copper conductor
- Core insulation made of electron beam cross-linked copolymer
- Colour of core insulation: white
- Outer sheath made of electron beam cross-linked copolymer
- Outer sheath colour: black

Technical data

Classification
ETIM 5.0 Class-ID: EC001578
ETIM 5.0 Class-Description: Flexible cable

Conductor stranding
Fine wire according to VDE 0295, class 5/IEC 60228 class 5

Minimum bending radius
Fixed installation: 4 x outer diameter

Nominal voltage
AC U_0/U : 1,0/1,0 kV
DC U_0/U : 1,5/1,5 kV
Max. permissible operating voltage: DC 1,8 kV

Test voltage
AC 6500 V

Current rating
Im compliance with EN 50618, Table A.3

Temperature range
-40°C to +120°C max. conductor temperature based on EN 60216-1
Ambient temperature range according to EN 50618: -40°C to +90°C

Article number	Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SOLAR XLR-E				
Core insulation: white / Outer sheath: black				
1023652	4.0	5.4	38.4	66
1023653	6.0	6.0	57.6	89
1023654	10.0	7.2	96.0	136
1023655	16.0	8.4	153.6	207
Core insulation: white / Outer sheath: black with red stripe				
1023667	4.0	5.4	38.4	66
1023668	6.0	6.0	57.6	89
1023669	10.0	7.2	96.0	136
1023670	16.0	8.4	153.6	207

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ÖLFLEX® UNIPLUS HFFR Z

ISI Marked Halogen free flame retardant single core for control cabinet or panel wiring

Info

- Standard lengths available in 100m, 500m

Benefits

- ISI Marked
- Protection of human life and the environment, thanks to the avoidance of the formation of acid and smoke in case of fire

Application range

- For wiring of lamps, devices, switch gear cabinets and distribution boxes
- For installation in tubes, on, in and under plaster as well as in closed installation ducts
- In application area with a high density of people or valuable assets for increased safety
- For use in dry rooms

Product features

- High conductivity
- Halogen free
- Flammability - IEC 60332.1

Norm references / Approvals

- ISI marked and certified to IS 17048

Product Make-up

- Conductor: Flexible annealed bare copper
- Core installation: Zero Halogen compound

Technical data

Conductor stranding
Class V
According to IS 8130/ IEC 60228

Minimum bending radius
Occasional flexing - 8 x cable diameter

Rated voltage
1100 V

Test voltage
3000 V

Current rating
In acc. IS 3961 Part-5

Temperature range
Fixed installation: -5°C to +70°C

Conductor Cross-section (mm²)	Standard length (m)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/ yellow	black	blue	brown	red	white	grey
0.5	100	2.2	4.8	9	3822000011	3822001011	3822002011	3822003011	3822004011	3822005011	3822006011
0.75	100	2.4	7.2	12	3822000021	3822001021	3822002021	3822003021	3822004021	3822005021	3822006021
1.0	100	2.6	9.6	15	3822000031	3822001031	3822002031	3822003031	3822004031	3822005031	3822006031
1.5	100	2.9	14.4	20	3822000041	3822001041	3822002041	3822003041	3822004041	3822005041	3822006041
2.5	100	3.5	24.0	31	3822000051	3822001051	3822002051	3822003051	3822004051	3822005051	3822006051
4	100	4.3	38.4	48	3822000061	3822001061	3822002061	3822003061	3822004061	3822005061	3822006061
6	100	4.9	57.6	68	3822000071	3822001071	3822002071	3822003071	3822004071	3822005071	3822006071
10	100	6.2	96.0	115	3822000081	3822001081	3822002081	3822003081	3822004081	3822005081	3822006081
16	100	7.3	153.6	172	3822000091	3822001091	3822002091	3822003091	3822004091	3822005091	3822006091
25	100	8.9	240.0	264	3822000101	3822001101	3822002101	3822003101	3822004101	3822005101	3822006101
35	100	10.1	336.0	359	3822000111	3822001111	3822002111	3822003111	3822004111	3822005111	3822006111
50	100	12.0	480.0	513	3822000121	3822001121	3822002121	3822003121	3822004121	3822005121	3822006121
70	100	13.7	672.0	708	3822000131	3822001131	3822002131	3822003131	3822004131	3822005131	3822006131
95	100	15.8	912.0	935	3822000141	3822001141	3822002141	3822003141	3822004141	3822005141	3822006141
120	100	17.4	1,152.0	1,177	3822000151	3822001151	3822002151	3822003151	3822004151	3822005151	3822006151
150	100	19.5	1,440.0	1,470	3822000161	3822001161	3822002161	3822003161	3822004161	3822005161	3822006161
185	100	21.6	1,776.0	1,791	3822000171	3822001171	3822002171	3822003171	3822004171	3822005171	3822006171
240	100	24.4	2,304.0	2,355	3822000181	3822001181	3822002181	3822003181	3822004181	3822005181	3822006181

Conductor Cross-section (mm²)	Standard length (m)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	violet	pink	orange	yellow	green	dark blue
0.5	100	2.2	4.8	9	3822007011	3822008011	3822009011	3822011011	3822012011	3822141011
0.75	100	2.4	7.2	12	3822007021	3822008021	3822009021	3822011021	3822012021	3822141021
1.0	100	2.6	9.6	15	3822007031	3822008031	3822009031	3822011031	3822012031	3822141031
1.5	100	2.9	14.4	20	3822007041	3822008041	3822009041	3822011041	3822012041	3822141041
2.5	100	3.5	24.0	31	3822007051	3822008051	3822009051	3822011051	3822012051	3822141051
4	100	4.3	38.4	48	3822007061	3822008061	3822009061	3822011061	3822012061	3822141061
6	100	4.9	57.6	68	3822007071	3822008071	3822009071	3822011071	3822012071	3822141071
10	100	6.2	96.0	115	3822007081	3822008081	3822009081	3822011081	3822012081	3822141081
16	100	7.3	153.6	172	3822007091	3822008091	3822009091	3822011091	3822012091	3822141091
25	100	8.9	240.0	264	3822007101	3822008101	3822009101	3822011101	3822012101	3822141101
35	100	10.1	336.0	359	3822007111	3822008111	3822009111	3822011111	3822012111	3822141111
50	100	12.0	480.0	513	3822007121	3822008121	3822009121	3822011121	3822012121	3822141121
70	100	13.7	672.0	708	3822007131	3822008131	3822009131	3822011131	3822012131	3822141131
95	100	15.8	912.0	935	3822007141	3822008141	3822009141	3822011141	3822012141	3822141141
120	100	17.4	1,152.0	1,177	3822007151	3822008151	3822009151	3822011151	3822012151	3822141151
150	100	19.5	1,440.0	1,470	3822007161	3822008161	3822009161	3822011161	3822012161	3822141161
185	100	21.6	1,776.0	1,791	3822007171	3822008171	3822009171	3822011171	3822012171	3822141171
240	100	24.4	2,304.0	2,355	3822007181	3822008181	3822009181	3822011181	3822012181	3822141181

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CE

ÖLFLEX® UNIPLUS FR

ISI Marked PVC insulated single core

Info

- ISI marked

Benefits

- IS compliant ISI Marked
- Time-saving assembly

Application range

- For wiring of lamps, devices, switch gear cabinets and distribution boxes
- For installation in tubes, as well as in closed installation ducts or protected installations
- For use in dry rooms

Product features

- Flame retardant (FR)- IEC 60332.1/IS 10810-53

Norm references / Approvals

- IS 694:2010

Product Make-up

- Stranded Annealed Bare copper
- PVC compound type D in acc. to IS 5831:1984

Technical data

Core identification code
Coloured

Conductor stranding
Fine wire stranded Class 5 in acc. to IS 8130-1984/IEC 60228

Minimum bending radius
6 X OD

Nominal voltage
Up to and including 1100 V in acc. to IS 694:2010

Temperature range
Up to +70°C for fixed installations

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® UNIPLUS FR					
4510001U	1 X 0.5	2.6	green-yellow	4.8	9
4510002U	1 X 0.75	2.8	green-yellow	7.2	12
4510003U	1 X 1.0	3.0	green-yellow	9.6	15
4520011U	1 X 1.5	3.4	black	14.4	20
4520031U	1 X 1.5	3.4	brown	14.4	20
4520021U	1 X 1.5	3.4	blue	14.4	20
4520141U	1 X 1.5	3.4	dark blue	14.4	20
4520121U	1 X 1.5	3.4	green	14.4	20
4520001U	1 X 1.5	3.4	green-yellow	14.4	20
4520061U	1 X 1.5	3.4	grey	14.4	20
4520091U	1 X 1.5	3.4	orange	14.4	20
4520081U	1 X 1.5	3.4	pink	14.4	20
4520041U	1 X 1.5	3.4	red	14.4	20
4520161U	1 X 1.5	3.4	ultra marine blue	14.4	20
4520071U	1 X 1.5	3.4	violet	14.4	20
4520051U	1 X 1.5	3.4	white	14.4	20
4520111U	1 X 1.5	3.4	yellow	14.4	20
4520012U	1 X 2.5	4.1	black	24.0	33
4520032U	1 X 2.5	4.1	brown	24.0	33
4520022U	1 X 2.5	4.1	blue	24.0	33
4520122U	1 X 2.5	4.1	green	24.0	33
4520002U	1 X 2.5	4.1	green-yellow	24.0	33
4520062U	1 X 2.5	4.1	grey	24.0	33
4520092U	1 X 2.5	4.1	orange	24.0	33
4520042U	1 X 2.5	4.1	red	24.0	33
4520112U	1 X 2.5	4.1	yellow	24.0	33
4520003U	1 X 4	4.8	green-yellow	38.4	49
4520004U	1 X 6	5.3	green-yellow	57.6	72
4520005U	1 X 10	7.0	green-yellow	96.0	120
4520006U	1 X 16	8.1	green-yellow	153.6	182
4521001U	1 X 25	10.2	green-yellow	240.0	283
4521002U	1 X 35	11.7	green-yellow	336.0	386
4521003U	1 X 50	13.9	green-yellow	480.0	550
4521004U	1 X 70	16.0	green-yellow	672.0	761
4521005U	1 X 95	18.2	green-yellow	912.0	1022
4521006U	1 X 120	20.2	green-yellow	1152.0	1271
4521007U	1 X 150	22.5	green-yellow	1440.0	1595
4521008U	1 X 185	24.9	green-yellow	1776.0	1968
4521009U	1 X 240	28.4	green-yellow	2304.0	2538
4522001U	1 X 300	31.0	green-yellow	2615.0	2887

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ÖLFLEX® UNIPLUS FR-LSH

ISI Marked PVC FR-LSH insulated single core

Info

- ISI marked with FRLSH properties

Benefits

- IS compliant ISI Marked
- Time-saving assembly
- Safe for human life and the environment thanks to the reduced smoke and halogen in case of fire
- Internal wiring of devices

Application range

- For wiring of lamps, devices, switch gear cabinets and distribution boxes
- For installation in tubes, as well as in closed installation ducts or protected installations
- For use in dry rooms
- In application area with a high density of people or valuable assets

Product features

- Flame retardant (FR)- IEC 60332.1/IS 10810-53
- Low smoke and low halogen (LSH) : as per data sheet

Norm references / Approvals

- IS 694:2010

Product Make-up

- Stranded Annealed Bare copper
- PVC FR-LSH Type D in Acc. To IS 5831:1984

Technical data

Core identification code
Coloured

Conductor stranding
Fine wire stranded Class 5 in acc. to IS 8130-1984/IEC 60228

Minimum bending radius
6 X OD

Nominal voltage
Up to and including 1100 V in acc. to IS 694:2010

Temperature range
Up to +70°C for fixed installations

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® UNIPLUS FR-LSH					
4610011U	1 X 0.5	2.6	black	4.8	9
4610001U	1 X 0.5	2.6	green-yellow	4.8	9
4610002U	1 X 0.75	2.8	green-yellow	7.2	12
4610003U	1 X 1.0	3.0	green-yellow	9.6	15
4620011U	1 X 1.5	3.4	black	14.4	21
4620031U	1 X 1.5	3.4	brown	14.4	21
4620021U	1 X 1.5	3.4	blue	14.4	21
4620141U	1 X 1.5	3.4	dark blue	14.4	21
4620121U	1 X 1.5	3.4	green	14.4	21
4620001U	1 X 1.5	3.4	green-yellow	14.4	21
4620061U	1 X 1.5	3.4	grey	14.4	21
4620091U	1 X 1.5	3.4	orange	14.4	21
4620081U	1 X 1.5	3.4	pink	14.4	21
4620041U	1 X 1.5	3.4	red	14.4	21
4620161U	1 X 1.5	3.4	ultra marine blue	14.4	21
4620071U	1 X 1.5	3.4	violet	14.4	21
4620051U	1 X 1.5	3.4	white	14.4	21
4620111U	1 X 1.5	3.4	yellow	14.4	21
4620012U	1 X 2.5	4.1	black	24.0	34
4620032U	1 X 2.5	4.1	brown	24.0	34
4620022U	1 X 2.5	4.1	blue	24.0	34
4620122U	1 X 2.5	4.1	green	24.0	34
4620002U	1 X 2.5	4.1	green-yellow	24.0	34
4620062U	1 X 2.5	4.1	grey	24.0	34
4620092U	1 X 2.5	4.1	orange	24.0	34
4620042U	1 X 2.5	4.1	red	24.0	34
4620112U	1 X 2.5	4.1	yellow	24.0	34
4620003U	1 X 4	4.8	green-yellow	38.4	50
4620004U	1 X 6	5.3	green-yellow	57.6	74
4620005U	1 X 10	7.0	green-yellow	96.0	122
4620006U	1 X 16	8.1	greyNE	153.6	185
4621001U	1 X 25	10.2	green-yellow	240.0	288
4621002U	1 X 35	11.7	green-yellow	336.0	391
4621003U	1 X 50	13.9	green-yellow	480.0	557
4621004U	1 X 70	16.0	green-yellow	672.0	770
4621005U	1 X 95	18.2	green-yellow	912.0	1034
4621006U	1 X 120	20.2	green-yellow	1152.0	1283
4621007U	1 X 150	22.5	green-yellow	1440.0	1611
4621008U	1 X 185	24.9	green-yellow	1776.0	1989
4621009U	1 X 240	28.4	green-yellow	2304.0	2562

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ÖLFLEX® UNIPLUS TRI

TRI Rated Single core, British - BS 6231 type CK, USA - UL Recognised (AWM), Canada - CSA (TEW) Hookup wire

Info

- Multi-standard single core BS-6231, UL-CSA
- Conforms to BS for higher voltage range 1000V
- Higher maximum conductor temperature 1050 deg C according to UL

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Increase cost effectiveness of production process
- Time-saving assembly

Application range

- Factory wiring
- Field wiring
- Internal wiring of appliances
- Control cabinet wiring

Product features

- Flame retardant acc. to IEC 60332-1-2
- Flame retardant according to UL VW1 & CSA FT1
- Oil-resistant to 60°C

Norm references / Approvals

- CPR approved
- BS 6231 Type CK
- UL 758
- CSA 22.2 Type TEW

Product Make-up

- Annealed bare copper, Class V in acc. to IEC 60228
- Special PVC compound suitable for 105°C

Technical data

Core identification code
Coloured

Conductor stranding
Annealed bare copper, Class 5 in acc. to IEC 60228

Minimum bending radius
Occasional flexing: 8 x cable OD
Fixed installation: 6 x cable OD

Nominal voltage
BS: 1000V
UL (AWM): 600V

Temperature range
Occasional flexing: -15°C up to +105°C max. conductor temperature
Fixed installation: -30°C up to +105°C max. conductor temperature

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® UNIPLUS TRI					
8201010100	1 X 0.5	2.6	black	4.8	12
8201010000	1 X 0.5	2.6	green-yellow	4.8	12
8201010001	1 X 0.75	2.8	green-yellow	7.2	15
8201010102	1 X 1.0	3.0	black	9.6	18
8201010302	1 X 1.0	3.0	brown	9.6	18
8201010202	1 X 1.0	3.0	blue	9.6	18
8201010402	1 X 1.0	3.0	red	9.6	18
8201010002	1 X 1.0	3.0	green-yellow	9.6	18
8201010103	1 X 1.5	3.2	black	14.4	22
8201010303	1 X 1.5	3.2	brown	14.4	22
8201010203	1 X 1.5	3.2	blue	14.4	22
8201011403	1 X 1.5	3.2	dark blue	14.4	22
8201011203	1 X 1.5	3.2	green	14.4	22
8201010603	1 X 1.5	3.2	grey	14.4	22
8201011503	1 X 1.5	3.2	light blue	14.4	22
8201010903	1 X 1.5	3.2	orange	14.4	22
8201010803	1 X 1.5	3.2	pink	14.4	22
8201010403	1 X 1.5	3.2	red	14.4	22
8201010703	1 X 1.5	3.2	volet	14.4	22
8201010503	1 X 1.5	3.2	white	14.4	22
8201011103	1 X 1.5	3.2	yellow	14.4	22
8201010003	1 X 1.5	3.2	green-yellow	14.4	22
8201010104	1 X 2.5	3.7	black	24.0	33
8201010304	1 X 2.5	3.7	brown	24.0	33
8201010204	1 X 2.5	3.7	blue	24.0	33
8201010404	1 X 2.5	3.7	red	24.0	33
8201010004	1 X 2.5	3.7	green-yellow	24.0	33
8201010005	1 X 4	4.2	green-yellow	38.4	47
8201010006	1 X 6	5.1	green-yellow	57.6	70
8201010007	1 X 10	6.5	green-yellow	96.0	117
8201010008	1 X 16	7.5	green-yellow	154.0	172
8201010009	1 X 25	9.1	green-yellow	240.0	261
8201010010	1 X 35	10.2	green-yellow	336.0	353
8201010011	1 X 50	12.5	green-yellow	480.0	514
8201010012	1 X 70	14.2	green-yellow	672.0	705
8201010013	1 X 95	16.1	green-yellow	912.0	923
8201010014	1 X 120	17.7	green-yellow	1152.0	1156
8201010015	1 X 150	19.6	green-yellow	1440.0	1433
8201010016	1 X 185	21.6	green-yellow	1776.0	1742
8201010017	1 X 240	24.3	green-yellow	2304.0	2273

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60227IEC06 / H05V-K

<VDE> H05V-K and TISI 60227IEC06 type certified

Info

- VDE and TISI certified

Benefits

- Cables' <VDE> marking is a testing mark/ proof of the successful testing according to VDE/ EN/ HD/ IEC standards as well as possible health and safety regulations. <VDE> is issued by the VDE testing and certification institute.

Application range

- Internal wiring of devices
- Protected installation in and on lighting equipments
- Signal systems in and on plaster in tubes

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- <VDE> cable type certification acc. EN 50525-2-31
- TISI certified acc. TIS 11-Part 3-2553, resp. IEC 60227-3

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000993
ETIM 5.0/6.0 Class-Description: Single core cable

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Minimum bending radius
6 x cable diameter

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Temperature range
Fixed installation: -30°C to +70°C

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/ yellow	black	blue	brown	red
0.5	2.2	4.8	9	8110001	8110011	8110021	8110031	8110041
0.75	2.3	7.2	12	8110002	8110012	8110022	8110032	8110042
1.0	2.5	9.6	14	8110003	8110013	8110023	8110033	8110043

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	white	grey	orange	yellow	green
0.5	2.2	4.8	9	8110051	8110061	8110091	8110111	8110121
0.75	2.3	7.2	12	8110052	8110062	8110092	8110112	8110122
1.0	2.5	9.6	14	8110053	8110063	8110093	8110113	8110123

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60227IEC02 / H07V-K

<VDE> H07V-K and TISI 60227IEC062type certified

Info

- VDE and TISI certified

LAPP KABEL 60227IEC02 H07V-K <VDE> PVC 70°C TIS 11-Part 3-2553

Benefits

- Cables' <VDE> marking is a testing mark/ proof of the successful testing according to VDE/ EN/ HD/ IEC standards as well as possible health and safety regulations. <VDE> is issued by the VDE testing and certification institute.

Application range

- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- For direct laying on racks, troughs and tubes only as potential equalisation conductor

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- <VDE> cable type certification acc. EN 50525-2-31
- The following colours are not type certified in accordance with EN 50525-1: transparent, green (single colour), yellow (single colour), all double colours (except green-yellow and yellow-green)
- TISI certified acc. TIS 11-Part 3-2553, resp. IEC 60227-3

Product Make-up

- Fine-wired copper conductor of bare copper strands in line with conductor class 5 acc. IEC 60228
- Core insulation: Based on PVC

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000993
ETIM 5.0/6.0 Class-Description: Single core cable

Conductor stranding
Fine wire according to VDE 0295 Class 5/ IEC 60228 Class 5

Minimum bending radius
6 x cable diameter

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Temperature range
Fixed installation: -30°C to +70°C

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/ yellow	black	blue	brown	red
1.5	3.2	14.4	22	8120001	8120011	8120021	8120031	8120041
2.5	3.6	24.0	32	8120002	8120012	8120022	8120032	8120042
4	4.6	38.4	52	8120003	8120013	8120023	8120033	8120043
6	5.3	57.6	76	8120004	8120014	8120024	8120034	8120044
10	6.3	96.0	119	8120005	8120015	8120025	8120035	8120045
16	7.4	153.6	175	8120006	8120016	8120026	8120036	8120046
25	9.2	240.0	270	8121001	8121011	8121021	8121031	8121041
35	10.5	336.0	373	8121002	8121012	8121022	8121032	8121042
50	12.5	480.0	519	8121003	8121013	8121023	8121033	8121043
70	14.4	672.0	726	8121004	8121014	8121024	8121034	8121044
95	16.6	912.0	960	8121005	8121015	8121025	8121035	8121045
120	18.3	1152.0	1198	8121006	8121016	8121026	8121036	8121046
150	20.6	1440.0	1491	8121007	8121017	8121027	8121037	8121047
185	22.8	1776.0	1829	8121008	8121018	8121028	8121038	8121048
240	26.0	2304.0	2383	8121009	8121019	8121029	8121039	8121049

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	white	grey	orange	yellow	green
1.5	3.2	14.4	22	8120051	8120061	8120091	8120111	8120121
2.5	3.6	24.0	32	8120052	8120062	8120092	8120112	8120122
4	4.6	38.4	52	8120053	8120063	8120093	8120113	8120123
6	5.3	57.6	76	8120054	8120064	8120094	8120114	8120124
10	6.3	96.0	119	8120055	8120065	8120095	8120115	8120125
16	7.4	153.6	175	8120056	8120066	8120096	8120116	8120126
25	9.2	240.0	270	8121051	8121061	8121091	8121111	8121121
35	10.5	336.0	373	8121052	8121062	8121092	8121112	8121122
50	12.5	480.0	519	8121053	8121063	8121093	8121113	8121123
70	14.4	672.0	726	8121054	8121064	8121094	8121114	8121124
95	16.6	912.0	960	8121055	8121065	8121095	8121115	8121125
120	18.3	1152.0	1198	8121056	8121066	8121096	8121116	8121126
150	20.6	1440.0	1491	8121057	8121067	8121097	8121117	8121127
185	22.8	1776.0	1829	8121058	8121068	8121098	8121118	8121128
240	26.0	2304.0	2383	8121059	8121069	8121099	8121119	8121129

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60227IEC05(BV) 300/500V

Single-core non-sheathed cable with solid conductor for internal wiring for a conductor temperature of 70 °C

Info

- Rated voltage U_0/U: 300/500 V
- With CCC certification

Benefits

- With CCC certification issued by China Quality Certifidation Center

Application range

- Internal wiring of devices and control cabinets
- Protected installation in and on lighting equipment
- Signal systems in and on plaster in tubes

Product features

- Fixed installation temperature down to -40°C
- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- CCC certificate according to GB/T 5023.3, IEC 60227-3

Product Make-up

- Solid copper conductor according IEC 60228 Class 1, GB/T 3956 Class 1
- Special PVC insulation

Technical data

Conductor stranding
Solid copper conductor according to IEC 60228 Class 1, GB/T 3956 Class 1

Minimum bending radius
4 x outer diameter for fixed installation

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Temperature range
Fixed installation: -30°C to +80°C

Core identification code
Optional

Protective conductor
Optional

Classification
Optional

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
60227IEC05(BV) 300/500V					
39340001	1 X 0.5	2.1	green-yellow	4.8	10
39340101	1 X 0.5	2.1	black	4.8	10
39340201	1 X 0.5	2.1	blue	4.8	10
39340301	1 X 0.5	2.1	brown	4.8	10
39340401	1 X 0.5	2.1	red	4.8	10
39340501	1 X 0.5	2.1	white	4.8	10
39340601	1 X 0.5	2.1	grey	4.8	10
39340701	1 X 0.5	2.1	violet	4.8	10
39340801	1 X 0.5	2.1	pink	4.8	10
39340901	1 X 0.5	2.1	orange	4.8	10
39341101	1 X 0.5	2.1	yellow	4.8	10
39341201	1 X 0.5	2.1	green	4.8	10
39341401	1 X 0.5	2.1	dark blue	4.8	10
39340002	1 X 0.75	2.3	green-yellow	7.2	10
39340102	1 X 0.75	2.3	black	7.2	10
39340202	1 X 0.75	2.3	blue	7.2	10
39340302	1 X 0.75	2.3	brown	7.2	10
39340402	1 X 0.75	2.3	red	7.2	10
39340502	1 X 0.75	2.3	white	7.2	10
39340602	1 X 0.75	2.3	grey	7.2	10
39340702	1 X 0.75	2.3	violet	7.2	10
39340802	1 X 0.75	2.3	pink	7.2	10
39340902	1 X 0.75	2.3	orange	7.2	10
39341102	1 X 0.75	2.3	yellow	7.2	10
39341202	1 X 0.75	2.3	green	7.2	10
39341402	1 X 0.75	2.3	dark blue	7.2	10
39340003	1 X 1.0	2.5	green-yellow	9.6	20
39340103	1 X 1.0	2.5	black	9.6	20
39340203	1 X 1.0	2.5	blue	9.6	20
39340303	1 X 1.0	2.5	brown	9.6	20
39340403	1 X 1.0	2.5	red	9.6	20
39340503	1 X 1.0	2.5	white	9.6	20
39340603	1 X 1.0	2.5	grey	9.6	20
39340703	1 X 1.0	2.5	violet	9.6	20
39340803	1 X 1.0	2.5	pink	9.6	20
39340903	1 X 1.0	2.5	orange	9.6	20
39341103	1 X 1.0	2.5	yellow	9.6	20
39341203	1 X 1.0	2.5	green	9.6	20
39341403	1 X 1.0	2.5	dark blue	9.6	20

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60227IEC01(BV) 450/750V

Single-core non-sheathed cable with rigid conductor for general purposes

Info

- Rated voltage U_0/U: 450/750 V
- With CCC certification

Benefits

- With CCC certification issued by China Quality Certification Center

Application range

- Internal wiring of devices and control cabinets
- Laying in tubes, exposed or buried in plaster, and in closed installation ducts
- Factory wiring and Field wiring

Product features

- Fixed installation temperature down to -30°C
- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- CCC certificate according to GB/T 5023.3, IEC 60227-3

Product Make-up

- Up to 10 mm²: Solid copper conductor according to IEC 60228 class 1, GB/T 3956 Class 1
  From 16 mm²: Multi copper wires stranded according to IEC 60228 Class 2, GB/T 3956 Class 2
- Special PVC insulation

Technical data

Conductor stranding
Up to 10 mm²: Solid copper conductor according to IEC 60228 class 1, GB/T 3956 Class 1
From 16 mm²: Multi copper wires stranded according to IEC 60228 Class 2, GB/T 3956 Class 2

Minimum bending radius
OD ≤ 12 mm: 6 x outer diameter
OD > 12 mm: 8 x outer diameter

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Temperature range
Fixed installation: -30°C to +80°C

Core identification code
Optional

Protective conductor
Optional

Classification
ETIM
Optional

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
60227IEC01(BV) 450/750V					
39370004	1 X 1.5	2.9	green-yellow	20.0	14
39370104	1 X 1.5	2.9	black	20.0	14
39370204	1 X 1.5	2.9	blue	20.0	14
39370304	1 X 1.5	2.9	brown	20.0	14
39370604	1 X 1.5	2.9	grey	20.0	14
39370005	1 X 2.5	3.4	green-yellow	40.0	24
39370105	1 X 2.5	3.4	black	40.0	24
39370205	1 X 2.5	3.4	blue	40.0	24
39370305	1 X 2.5	3.4	brown	40.0	24
39370605	1 X 2.5	3.4	grey	40.0	24
39370006	1 X 4	4.1	green-yellow	50.0	38
39370106	1 X 4	4.1	black	50.0	38
39370206	1 X 4	4.1	blue	50.0	38
39370306	1 X 4	4.1	brown	50.0	38
39370606	1 X 4	4.1	grey	50.0	38
39370007	1 X 6	4.6	green-yellow	70.0	58
39370107	1 X 6	4.6	black	70.0	58
39370207	1 X 6	4.6	blue	70.0	58
39370307	1 X 6	4.6	brown	70.0	58
39370607	1 X 6	4.6	grey	70.0	58
39370008	1 X 10	6.2	green-yellow	120.0	96
39370108	1 X 10	6.2	black	120.0	96
39370208	1 X 10	6.2	blue	120.0	96
39370308	1 X 10	6.2	brown	120.0	96
39370608	1 X 10	6.2	grey	120.0	96
39370009	1 X 16	7.3	green-yellow	190.0	153
39370109	1 X 16	7.3	black	190.0	153
39370209	1 X 16	7.3	blue	190.0	153
39370309	1 X 16	7.3	brown	190.0	153
39370609	1 X 16	7.3	grey	190.0	153
39370010	1 X 25	9.3	green-yellow	290.0	240
39370110	1 X 25	9.3	black	290.0	240
39370210	1 X 25	9.3	blue	290.0	240
39370310	1 X 25	9.3	brown	290.0	240
39370610	1 X 25	9.3	grey	290.0	240
39370011	1 X 35	10.3	green-yellow	400.0	336
39370111	1 X 35	10.3	black	400.0	336

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
39370211	1 X 35	10.3	blue	400.0	336
39370311	1 X 35	10.3	brown	400.0	336
39370611	1 X 35	10.3	grey	400.0	336
39370012	1 X 50	12.2	green-yellow	560.0	480
39370112	1 X 50	12.2	black	560.0	480
39370212	1 X 50	12.2	blue	560.0	480
39370312	1 X 50	12.2	brown	560.0	480
39370612	1 X 50	12.2	grey	560.0	480
39370013	1 X 70	13.9	green-yellow	780.0	672
39370113	1 X 70	13.9	black	780.0	672
39370213	1 X 70	13.9	blue	780.0	672
39370313	1 X 70	13.9	brown	780.0	672
39370613	1 X 70	13.9	grey	780.0	672
39370014	1 X 95	16.3	green-yellow	1,030.0	912
39370114	1 X 95	16.3	black	1,030.0	912
39370214	1 X 95	16.3	blue	1,030.0	912
39370314	1 X 95	16.3	brown	1,030.0	912
39370614	1 X 95	16.3	grey	1,030.0	912
39370015	1 X 120	17.8	green-yellow	1,290.0	1,152
39370115	1 X 120	17.8	black	1,290.0	1,152
39370215	1 X 120	17.8	blue	1,290.0	1,152
39370315	1 X 120	17.8	brown	1,290.0	1,152
39370615	1 X 120	17.8	grey	1,290.0	1,152
39370016	1 X 150	19.8	green-yellow	1,560.0	1,440
39370116	1 X 150	19.8	black	1,560.0	1,440
39370216	1 X 150	19.8	blue	1,560.0	1,440
39370316	1 X 150	19.8	brown	1,560.0	1,440
39370616	1 X 150	19.8	grey	1,560.0	1,440
39370017	1 X 185	22.0	green-yellow	1,920.0	1,776
39370117	1 X 185	22.0	black	1,920.0	1,776
39370217	1 X 185	22.0	blue	1,920.0	1,776
39370317	1 X 185	22.0	brown	1,920.0	1,776
39370617	1 X 185	22.0	grey	1,920.0	1,776
39370018	1 X 240	25.1	green-yellow	2,550.0	2,304
39370118	1 X 240	25.1	black	2,550.0	2,304
39370218	1 X 240	25.1	blue	2,550.0	2,304
39370318	1 X 240	25.1	brown	2,550.0	2,304
39370618	1 X 240	25.1	grey	2,550.0	2,304

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60227IEC06(RV) 300/500V

Single-core non-sheathed cable with flexible conductor for general purposes

Info

- Rated voltage U_0/U: 300/500 V
- With CCC certification
- With <VDE> cable type certification

Benefits

- With CCC certification issued by China Quality Certification Center
- With <VDE> cable type certification issued by the VDE testing and certification institute. Cable's <VDE> marking is a testing mark /proof of the successful testing according to VDE/EN/IEC standards as well as possible health and safety regulations

Application range

- Internal wiring of devices and control cabinets
- Protected installation in and on lighting equipment
- Signal systems in and on plaster in tubes

Product features

- Fixed installation temperature down to -40°C
- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- CCC certificate according to GB/T 5023.3, IEC 60227-3
- <VDE> cable type certification according to EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands according to class 5 of VDE 0295, IEC 60228, GB/T 3956
- PVC insulation

Technical data

Conductor stranding
Fine wire according to VDE 0295 Class 5, IEC 60228 Class 5, GB/T 3956 Class 5

Minimum bending radius
4 x outer diameter for fixed installation

Nominal voltage
U_0/U: 300/500 V

Test voltage
2000 V

Temperature range
Fixed installation: -40°C to +80°C

Core identification code
Optional

Protective conductor
Optional

Classification
Optional

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
60227IEC06(RV) 300/500V					
3910001	1 X 0.5	2.2	green-yellow	4.8	10
3910011	1 X 0.5	2.2	black	4.8	10
39100211	1 X 0.5	2.2	blue	4.8	10
3910031	1 X 0.5	2.2	brown	4.8	10
3910041	1 X 0.5	2.2	red	4.8	10
3910051	1 X 0.5	2.2	white	4.8	10
3910061	1 X 0.5	2.2	grey	4.8	10
3910071	1 X 0.5	2.2	violet	4.8	10
3910081	1 X 0.5	2.2	pink	4.8	10
3910091	1 X 0.5	2.2	orange	4.8	10
3910111	1 X 0.5	2.2	yellow	4.8	10
3910121	1 X 0.5	2.2	green	4.8	10
39101411	1 X 0.5	2.2	dark blue	4.8	10
3910002	1 X 0.75	2.4	green-yellow	7.2	10
3910012	1 X 0.75	2.4	black	7.2	10
39100221	1 X 0.75	2.4	blue	7.2	10
3910032	1 X 0.75	2.4	brown	7.2	10
3910042	1 X 0.75	2.4	red	7.2	10
3910052	1 X 0.75	2.4	white	7.2	10
3910062	1 X 0.75	2.4	grey	7.2	10
3910072	1 X 0.75	2.4	violet	7.2	10
3910082	1 X 0.75	2.4	pink	7.2	10
3910092	1 X 0.75	2.4	orange	7.2	10
3910112	1 X 0.75	2.4	yellow	7.2	10
3910122	1 X 0.75	2.4	green	7.2	10
39101421	1 X 0.75	2.4	dark blue	7.2	10
3910003	1 X 1.0	2.6	green-yellow	9.6	20
3910013	1 X 1.0	2.6	black	9.6	20
39100231	1 X 1.0	2.6	blue	9.6	20
3910033	1 X 1.0	2.6	brown	9.6	20
3910043	1 X 1.0	2.6	red	9.6	20
3910053	1 X 1.0	2.6	white	9.6	20
3910063	1 X 1.0	2.6	grey	9.6	20
3910073	1 X 1.0	2.6	violet	9.6	20
3910083	1 X 1.0	2.6	pink	9.6	20
3910093	1 X 1.0	2.6	orange	9.6	20
3910113	1 X 1.0	2.6	yellow	9.6	20
3910123	1 X 1.0	2.6	green	9.6	20
39101431	1 X 1.0	2.6	dark blue	9.6	20

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60227IEC02(RV) 450/750V

Single-core non-sheathed cable with flexible conductor for general purposes

Info

- Rated voltage U_0/U: 450/750 V
- With CCC certification
- With <VDE> cable type certification

Benefits

- With CCC certification issued by China Quality Certification Center
- With <VDE> cable type certification issued by the VDE testing and certification institute. Cable's <VDE> marking is a testing mark /proof of the successful testing according to VDE/EN/IEC standards as well as possible health and safety regulations

Application range

- Internal wiring of devices and control cabinets
- Laying in tubes, exposed or buried in plaster and in closed installation ducts
- For direct laying on racks, troughs and tubes, only as potential equalisation conductor

Product features

- Fixed installation temperature down to -40°C
- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- CCC certificate according to GB/T 5023.3, IEC 60227-3
- <VDE> cable type certification according to EN 50525-2-31

Product Make-up

- Fine-wired copper conductor of bare copper strands according to class 5 of VDE 0295, IEC 60228, GB/T 3956
- PVC insulation

Technical data

Conductor stranding
Fine wire according to VDE 0295 Class 5, IEC 60228 Class 5, GB/T 3956 Class 5

Minimum bending radius
6 x outer diameter for fixed installation
4 x outer diameter for cautions bending

Nominal voltage
U_0/U: 450/750 V

Test voltage
2500 V

Temperature range
Fixed installation: -40°C to +80°C

Core identification code
Optional

Protective conductor
Optional

Classification
ETIM
Optional

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
60227IEC02(RV) 450/750V					
3911001	1 X 1.5	3.1	green-yellow	14.4	20
3911011	1 X 1.5	3.1	black	14.4	20
39110211	1 X 1.5	3.1	blue	14.4	20
3911031	1 X 1.5	3.1	brown	14.4	20
3911061	1 X 1.5	3.1	grey	14.4	20
3911002	1 X 2.5	3.7	green-yellow	24.0	40
3911012	1 X 2.5	3.7	black	24.0	40
39110221	1 X 2.5	3.7	blue	24.0	40
3911032	1 X 2.5	3.7	brown	24.0	40
3911062	1 X 2.5	3.7	grey	24.0	40
3911003	1 X 4	4.3	green-yellow	38.4	50
3911013	1 X 4	4.3	black	38.4	50
39110231	1 X 4	4.3	blue	38.4	50
3911033	1 X 4	4.3	brown	38.4	50
3911063	1 X 4	4.3	grey	38.4	50
3911004	1 X 6	4.8	green-yellow	54.6	70
3911014	1 X 6	4.8	black	54.6	70
39110241	1 X 6	4.8	blue	54.6	70
3911034	1 X 6	4.8	brown	54.6	70
3911064	1 X 6	4.8	grey	54.6	70
3911005	1 X 10	6.5	green-yellow	96.0	120
3911015	1 X 10	6.5	black	96.0	120
39110251	1 X 10	6.5	blue	96.0	120
3911035	1 X 10	6.5	brown	96.0	120
3911065	1 X 10	6.5	grey	96.0	120
3911006	1 X 16	7.7	green-yellow	153.6	190
3911016	1 X 16	7.7	black	153.6	190
39110261	1 X 16	7.7	blue	153.6	190
3911036	1 X 16	7.7	brown	153.6	190
3911066	1 X 16	7.7	grey	153.6	190
3912001	1 X 25	9.7	green-yellow	240.0	290
3912011	1 X 25	9.7	black	240.0	290
3912910	1 X 25	9.7	blue	240.0	290
3912031	1 X 25	9.7	brown	240.0	290
3912061	1 X 25	9.7	grey	240.0	290
3912002	1 X 35	10.9	green-yellow	336.0	400
3912012	1 X 35	10.9	black	336.0	400

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
3912912	1 X 35	10.9	blue	336.0	400
3912032	1 X 35	10.9	brown	336.0	400
3912062	1 X 35	10.9	grey	336.0	400
3912003	1 X 50	13.1	green-yellow	480.0	560
3912013	1 X 50	13.1	black	480.0	560
3912913	1 X 50	13.1	blue	480.0	560
3912033	1 X 50	13.1	brown	480.0	560
3912063	1 X 50	13.1	grey	480.0	560
3912004	1 X 70	14.9	green-yellow	672.0	770
3912014	1 X 70	14.9	black	672.0	770
3912915	1 X 70	14.9	blue	672.0	770
3912034	1 X 70	14.9	brown	672.0	770
3912064	1 X 70	14.9	grey	672.0	770
3912005	1 X 95	17.3	green-yellow	912.0	1,030
3912015	1 X 95	17.3	black	912.0	1,030
3912917	1 X 95	17.3	blue	912.0	1,030
3912035	1 X 95	17.3	brown	912.0	1,030
3912065	1 X 95	17.3	grey	912.0	1,030
3912006	1 X 120	19.2	green-yellow	1,152.0	1,290
3912016	1 X 120	19.2	black	1,152.0	1,290
3912918	1 X 120	19.2	blue	1,152.0	1,290
3912036	1 X 120	19.2	brown	1,152.0	1,290
3912066	1 X 120	19.2	grey	1,152.0	1,290
3912007	1 X 150	21.3	green-yellow	1,440.0	1,560
3912017	1 X 150	21.3	black	1,440.0	1,560
3912929	1 X 150	21.3	blue	1,440.0	1,560
3912037	1 X 150	21.3	brown	1,440.0	1,560
3912067	1 X 150	21.3	grey	1,440.0	1,560
3912008	1 X 185	23.7	green-yellow	1,776.0	1,920
3912018	1 X 185	23.7	black	1,776.0	1,920
3912922	1 X 185	23.7	blue	1,776.0	1,920
3912038	1 X 185	23.7	brown	1,776.0	1,920
3912068	1 X 185	23.7	grey	1,776.0	1,920
3912009	1 X 240	26.8	green-yellow	2,304.0	2,550
3912019	1 X 240	26.8	black	2,304.0	2,550
3912924	1 X 240	26.8	blue	2,304.0	2,,550
3912039	1 X 240	26.8	brown	2,304.0	2550
3912069	1 X 240	26.8	grey	2,304.0	2,550

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ÖLFLEX® WIRE V-90HT

High temperature PVC insulated cables

Benefits

- The light weight and the practical hand holes in the spool packaging makes handling easy

Application range

- Suitable for assembling cable harnesses and wiring in the switch cabinet installation
- Used for installations in plants, devices, switch gear cabinets, where high temperature occur

Product features

- Flame retardant in acc. to VW -1, and IEC 60332-1-2
- Wide temperature range up to 105°C

Product Make-up

- Fine strands of tinned annealed copper wire
- High temperature PVC based core insulation

Info

- Single core, flexible hook-up wire
- Based on AS/NZS 5000.1, UL Style 1015 and UL Style 10269
- Temperature up to 105°C

Technical data

Classification
ETIM 5.0 Class-Description: Single core cable
ETIM 5.0 Class-ID: EC000993

Conductor stranding
Fine wire acc. toVDE 0295 Cl.5 / IEC 60228 Cl.5

Minimum bending radius
Fixed installation: 3 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-20°C to +105°C

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/ yellow	black	blue	brown	red	white	grey
0.5	2.5	4.8	11	3801000	3801001	3801002	3801003	3801004	3801005	3801006
0.75	2.7	7.2	14	3801010	3801011	3801012	3801013	3801014	3801015	3801016
1.0	2.9	9.6	17	3801020	3801021	3801022	3801023	3801024	3801025	3801026
1.5	3.2	14.4	23	3801030	3801031	3801032	3801033	3801034	3801035	3801036
2.5	3.7	24.0	34	3801040	3801041	3801042	3801043	3801044	3801045	3801046
4	4.3	38.4	54	3801050A	3801051A	3801052A	3801053A	3801054A	3801055A	3801056A
6	4.9	57.6	88	3801060A	3801061A	3801062A	3801063A	3801064A	3801065A	3801066A
10	6.5	96.0	138	3801070	3801071	3801072	3801073	3801074	3801075	3801076
16	8.4	153.6	231	3801080	3801081	3801082	3801083	3801084	3801085	3801086
25	10.2	240.0	305	3802410	3802411	3802412	3802413	3802414	3802415	3802416
35	12.4	336.0	437	3802420	3802421	3802422	3802423	3802424	3802425	3802426
50	13.9	480.0	588	3802430	3802431	3802432	3802433	3802434	3802435	3802436
70	16.0	672.0	790	3802440	3802441	3802442	3802443	3802444	3802445	3802446
95	18.0	912.0	1051	3802450	3802451	3802452	3802453	3802454	3802455	3802456
120	20.5	1152.0	1330	3802460	3802461	3802462	3802463	3802464	3802465	3802466
150	22.2	1440.0	1628	3802470	3802471	3802472	3802473	3802474	3802475	3802476
185	24.2	1776.0	1984	3802480	3802481	3802482	3802483	3802484	3802485	3802486
240	29.5	2304.0	2514	3802490	3802491	3802492	3802493	3802494	3802495	3802496

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	violet	pink	orange	yellow	green	dark blue
0.5	2.5	4.8	11	3801007	3801008	3801009	38010011	38010012	38010014
0.75	2.7	7.2	14	3801017	3801018	3801019	38010111	3801362	38010114
1.0	2.9	9.6	17	3801027	3801028	3801029	38010211	38010212	38010214
1.5	3.2	14.4	23	3801037	3801038	3801039	38010311	38010312	38010314
2.5	3.7	24.0	34	3801047	3801048	3801049	38010411	38010412	38010414
4	4.3	38.4	54	3801057A	3801058A	3801059A	38010511A	38010512A	38010514A
6	4.9	57.6	88	3801067A	3801068A	3801069A	38010611A	38010612A	38010614A
10	6.5	96.0	138	3801077	3801078	3801079	38010711	38010712	38010714
16	8.4	153.6	231	3801087	3801088	3801089	38010811	38010812	38010814
25	10.2	240.0	305	3802417	3802418	3802419	38024111	38024112	38024114
35	12.4	336.0	437	3802427	3802428	3802429	38024211	38024212	38024214
50	13.9	480.0	588	3802437	3802438	3802439	38024311	38024312	38024314
70	16.0	672.0	790	3802447	3802448	3802449	38024411	38024412	38024414
95	18.0	912.0	1051	3802457	3802458	3802459	38024511	38024512	38024514
120	20.5	1152.0	1330	3802467	3802468	3802469	38024611	38024612	38024614
150	22.2	1440.0	1628	3802477	3802478	3802479	38024711	38024712	38024714
185	24.2	1776.0	1984	3802487	3802488	3802489	38024811	38024812	38024814
240	29.5	2304.0	2514	3802497	3802498	3802499	38024911	38024912	38024914

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CE

ÖLFLEX® WIRE 610 H

Flexible halogen-free

Info

- Single core, Flexible
- Halogen-free

Benefits

- Halogen free insulation material and free of releasing corrosive gases in the event of fire

Application range

- For use in wiring switchgear, control panel, lighting, and distribution boxes installation
- For installation in enclosed metallic or non-metallic conduit, ducting, and trunking protective cover
- In buildings with a high concentration of people or valuables

Product features

- Flame retardant in acc. to IEC 60332-3-22
- Halogen free in acc. to IEC 60754-1
- Smoke density in acc. to IEC 61034

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Fine strands of bare copper wire
- LSHF core insulation

Technical data

Classification
ETIM 5.0 Class-Description: Single core cable
ETIM 5.0 Class-ID: EC000993

Conductor stranding
Fine wire acc. toIEC 60228 Cl. 5 / BS 6360 Cl. 5

Minimum bending radius
Fixed installation: 6 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-30°C to +90°C

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/ yellow	black	blue	brown	red
0.5	2.5	4.8	11	3802210	3802211	3802212	3802213	3802214
0.75	2.8	7.2	14	3802220	3802221	3802222	3802223	3802224
1.0	2.9	9.6	16	3802230	3802231	3802232	3802233	3802234
1.5	3.2	14.4	22	3802240	3802241	3802242	3802243	3802244
2.5	3.6	24.0	32	3802250	3802251	3802252	3802253	3802254
4	4.6	38.4	52	3802260	3802261	3802262	3802263	3802264
6	5.3	57.6	76	3802270	3802271	3802272	3802273	3802274
10	6.3	96.0	119	3802280	3802281	3802282	3802283	3802284
16	7.4	153.6	175	3802290	3802291	3802292	3802293	3802294
25	9.2	240.0	270	3802300	3802301	3802302	3802303	3802304
35	10.5	336.0	373	3802310	3802311	3802312	3802313	3802314
50	12.5	480.0	519	3802320	3802321	3802322	3802323	3802324
70	14.4	672.0	726	3802330	3802331	3802332	3802333	3802334
95	16.6	912.0	960	3802340	3802341	3802342	3802343	3802344
120	18.3	1152.0	1198	3802350	3802351	3802352	3802353	3802354
150	20.6	1440.0	1491	3802360	3802361	3802362	3802363	3802364
185	22.8	1776.0	1829	3802370	3802371	3802372	3802373	3802374
240	26.0	2304.0	2383	3802380	3802381	3802382	3802383	3802384

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	grey	white	orange	yellow	green
0.5	2.5	4.8	11	3802215	3802216	3802217	3802218	3802219
0.75	2.8	7.2	14	3802225	3802226	3802227	3802228	3802229
1.0	2.9	9.6	16	3802235	3802236	3802237	3802238	3802239
1.5	3.2	14.4	22	3802245	3802246	3802247	3802248	3802249
2.5	3.6	24.0	32	3802255	3802256	3802257	3802258	3802259
4	4.6	38.4	52	3802265	3802266	3802267	3802268	3802269
6	5.3	57.6	76	3802275	3802276	3802277	3802278	3802279
10	6.3	96.0	119	3802285	3802286	3802287	3802288	3802289
16	7.4	153.6	175	3802295	3802296	3802297	3802298	3802299
25	9.2	240.0	270	3802305	3802306	3802307	3802308	3802309
35	10.5	336.0	373	3802315	3802316	3802317	3802318	3802319
50	12.5	480.0	519	3802325	3802326	3802327	3802328	3802329
70	14.4	672.0	726	3802335	3802336	3802337	3802338	3802339
95	16.6	912.0	960	3802345	3802346	3802347	3802348	3802349
120	18.3	1152.0	1198	3802355	3802356	3802357	3802358	3802359
150	20.6	1440.0	1491	3802365	3802366	3802367	3802368	3802369
185	22.8	1776.0	1829	3802375	3802376	3802377	3802378	3802379
240	26.0	2304.0	2383	3802385	3802386	3802387	3802388	3802389

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ÖLFLEX® WIRE V-90

PVC insulated cables

Info

- Single core, flexible hook-up wire
- Based on AS/NZS 5000.1

Benefits

- The light weight and the practical hand holes the spool packaging makes easy

Application range

- Suitable for assembling cable harnesses and wiring in the switch cabinet installation
- Used for installations in plants, devices, switch gear cabinets, etc.

Product features

- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Fine strands of tinned annealed copper wire
- PVC based core insulation

Technical data

Classification
ETIM 5.0 Class-Description: Single core cable
ETIM 5.0 Class-ID: EC000993

Conductor stranding
Fine wire acc. toVDE 0295 Cl.5 / IEC 60228 Cl.5

Minimum bending radius
Fixed installation: 3 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-20°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Color	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® WIRE V-90					
8100901	1 X 4	4.7	GnYe	38.4	57
8100902	1 X 6	5.2	GnYe	57.6	78
8100903	1 X 10	6.2	GnYe	96.0	119
8100904	1 X 16	7.2	GnYe	153.6	178
8100905	1 X 25	9.0	GnYe	240.0	279
8100906	1 X 35	10.1	GnYe	336.0	373
8100907	1 X 50	11.9	GnYe	480.0	509
8100908	1 X 70	13.7	GnYe	672.0	711
8100909	1 X 95	16.0	GnYe	912.0	979
8100910	1 X 120	17.6	GnYe	1,152.0	1,219

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CE

ÖLFLEX® WIRE X-HF-110

Cross-linked halogen free insulated cables

Info

- Single core, flexible hook-up wire
- Based on AS/NZS 5000.1
- Temperature up to 115°C

Benefits

- The light weight and the practical hand holes in the spool packaging makes handling easy

Application range

- Suitable for assembling cable harnesses and wiring in the switch cabinet installation
- Used for installations in plants, devices, switch gear cabinets, where high temperature occur

Product features

- Flame retardant in acc. to VW -1, and IEC 60332-1-2
- Wide temperature range up to 105°C

Product Make-up

- Fine strands of tinned annealed copper wire
- Cross-linked halogen free core insulation

Technical data

Classification
ETIM 5.0 Class-Description: Single core cable
ETIM 5.0 Class-ID: EC000993

Conductor stranding
Fine wire acc. toVDE 0295 Cl.5 / IEC 60228 Cl.5

Minimum bending radius
Fixed installation: 3 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
-40°C to +110°C

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	green/yellow	black	blue	brown	red	white	grey
0.5	2.5	4.8	11	**8101100**	8101101	8101102	8101103	8101104	8101105	**8101106**
0.75	2.7	7.2	14	**8101110**	8101111	8101112	8101113	8101114	8101115	**8101116**
1.0	2.9	9.6	17	**8101120**	8101121	8101122	8101123	8101124	8101125	**8101126**
1.5	3.2	14.4	23	**8101130**	8101131	8101132	8101133	8101134	8101135	**8101136**
2.5	3.7	24.0	34	**8101140**	8101141	8101142	8101143	8101144	8101145	**8101146**
4	4.3	38.4	54	**8101150**	8101151	8101152	8101153	8101154	8101155	**8101156**
6	4.9	57.6	88	**8101160**	8101161	8101162	8101163	8101164	8101165	**8101166**
10	6.5	96.0	138	**8101170**	8101171	8101172	8101173	8101174	8101175	**8101176**
16	8.4	153.6	231	**8101180**	8101181	8101182	8101183	8101184	8101185	**8101186**
25	10.2	240.0	305	8101190	8101191	8101192	8101193	8101194	8101195	**8101196**
35	12.4	336.0	437	8101200	8101201	8101202	8101203	8101204	8101205	**8101206**
50	13.9	480.0	588	8101210	8101211	8101212	8101213	8101214	8101215	**8101216**
70	16.0	672.0	790	8101220	8101221	8101222	8101223	8101224	8101225	**8101226**
95	18.0	912.0	1051	8101230	8101231	8101232	8101233	8101234	8101235	**8101236**
120	20.5	1152.0	1330	8101240	8101241	8101242	8101243	8101244	8101245	**8101246**

Conductor Cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	violet	pink	orange	yellow	green	dark blue
0.5	2.5	4.8	11	8101107	8101108	8101109	81011011	81011012	81011014
0.75	2.7	7.2	14	8101117	8101118	8101119	81011111	81011112	81011114
1.0	2.9	9.6	17	8101127	8101128	8101129	81011211	81011212	81011214
1.5	3.2	14.4	23	8101137	8101138	8101139	81011311	81011312	81011314
2.5	3.7	24.0	34	8101147	8101148	8101149	81011411	81011412	81011414
4	4.3	38.4	54	8101157	8101158	8101159	81011511	81011512	81011514
6	4.9	57.6	88	8101167	8101168	8101169	81011611	81011612	81011614
10	6.5	96.0	138	8101177	8101178	8101179	81011711	81011712	81011714
16	8.4	153.6	231	8101187	8101188	8101189	81011811	81011812	81011814
25	10.2	240.0	305	8101197	8101198	8101199	81011911	81011912	81011914
35	12.4	336.0	437	8101207	8101208	8101209	81012011	81012012	81012014
50	13.9	480.0	588	8101217	8101218	8101219	81012111	81012112	81012114
70	16.0	672.0	790	8101227	8101228	8101229	81012211	81012212	81012214
95	18.0	912.0	1051	8101237	8101238	8101239	81012311	81012312	81012314
120	20.5	1152.0	1330	8101247	8101248	8101249	81012411	81012412	81012414

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ÖLFLEX® WIRE MS 1.05

UL-recognised (AWM) + CSA AWM I A/B + H05V-K, tinned-copper strands : Umax = 300V

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Tin coating prevents corrosion
- Increases the cost-effectiveness of the production process
- Easy storage

Application range

- Factory wiring
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW-1/ CSA FT1
- Oil-resistant 60°C & 80°C rating

Norm references / Approvals

- H05V-K acc. to EN 50525-2-31
  UL (AWM) Style 1007 & 1569, UL 758 (File No. E502334)
  CSA (AWM I A/B): Cert. # 80158416

Product Make-up

- Conductor : Fine-wire strand made of Tinned copper wires
- Insulation : Special PVC-based core insulation

Technical data

Conductor stranding
Fine wire according to Class 5/IEC 60228

Minimum bending radius
4 x OD

Nominal voltage
IEC: U_0/U: 300/500 V
UL & CSA (AWM): U: 300 V

Test voltage
2000 V

Temperature range
Fixed installation:
IEC: -40°C to +70°C;
UL & CSA(AWM): up to +105°C

		Conductor cross-section		
		0.5 mm²	0.75 mm²	1.0 mm²
Insulation color	Green/Yellow	8201016000	8201016013	8201016026
	Black	8201016001	8201016014	8201016027
	Blue	8201016002	8201016015	8201016028
	Dark Blue	8201016003	8201016016	8201016029
	Brown	8201016004	8201016017	8201016030
	Pink	8201016005	8201016018	8201016031
	Violet	8201016006	8201016019	8201016032
	Orange	8201016007	8201016020	8201016033
	Red	8201016008	8201016021	8201016034
	White	8201016009	8201016022	8201016035
	Grey	8201016010	8201016023	8201016036
	Yellow	8201016011	8201016024	8201016037
	Green	8201016012	8201016025	8201016038
Outer diameter [mm]		2.5	2.6	2.8
Copper index [kg/km]		4.8	7.2	9.6
Weight [kg/km]		9	12	15

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ÖLFLEX® WIRE MS 2.15

UL-listed (MTW), H07V-K, tin-coated strands, UL recognised (AWM) + CSA AWM I A/B : Umax = 600V

Info

- The all-rounder for many markets

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Tin coating prevents corrosion
- Increases the cost-effectiveness of the production process
- Works with 'Conductor end sleeves XL, insulated'
- Easy storage

Application range

- Factory wiring
- Field wiring
- Internal wiring of devices and in control cabinets
- Protected installation in and on lighting equipment

Product features

- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW-1/ CSA FT1
- Oil-resistant 60°C & 80°C rating

Norm references / Approvals

- H07V-K acc. to EN50525-2-31
  UL (AWM) Style 1015, UL 758
  (File No. E502334)
  UL (MTW): UL 1063 (File E530349)
  CSA (AWM I A/B) : Cert. # 80158416

Product Make-up

- Conductor : Fine-wire strand made of Tinned copper wires
- Insulation : Special PVC-based core insulation

Technical data

Conductor stranding
Fine wire according to
Class 5/IEC 60228

Minimum bending radius
OD ≤ 8 mm: 4 x OD
8 < OD ≤ 12 mm: 5 x OD
OD > 12 mm: 6 x OD

Nominal voltage
IEC: U_0/U: 450/750 V
UL & CSA (AWM): U: 600 V
UL (MTW): U: 600 V

Temperature range
Fixed installation:
IEC: -40°C to +70°C
UL & CSA (AWM): up to +105°C
UL (MTW): up to +90°C

		Conductor cross-section						
		0.5 mm²	0.75 mm²	1.0 mm²	1.5 mm²	2.5mm²	4.0 mm²	6.0 mm²
Insulation color	Green/Yellow	8201016050	8201016063	8201016076	8201016089	8201016102	8201016115	8201016128
	Black	8201016051	8201016064	8201016077	8201016090	8201016103	8201016116	8201016129
	Blue	8201016052	8201016065	8201016078	8201016091	8201016104	8201016117	8201016130
	Dark Blue	8201016053	8201016066	8201016079	8201016092	8201016105	8201016118	8201016131
	Brown	8201016054	8201016067	8201016080	8201016093	8201016106	8201016119	8201016132
	Pink	8201016055	8201016068	8201016081	8201016094	8201016107	8201016120	8201016133
	Violet	8201016056	8201016069	8201016082	8201016095	8201016108	8201016121	8201016134
	Orange	8201016057	8201016070	8201016083	8201016096	8201016109	8201016122	8201016135
	Red	8201016058	8201016071	8201016084	8201016097	8201016110	8201016123	8201016136
	White	8201016059	8201016072	8201016085	8201016098	8201016111	8201016124	8201016137
	Grey	8201016060	8201016073	8201016086	8201016099	8201016112	8201016125	8201016138
	Yellow	8201016061	8201016074	8201016087	8201016100	8201016113	8201016126	8201016139
	Green	8201016062	8201016075	8201016088	8201016101	8201016114	8201016127	8201016140
Outer diameter [mm]		2.7	2.9	3.1	3.4	4.0	4.6	5.1
Copper index [kg/km]		4.8	7.2	9.6	14.4	24.0	38.4	57.6
Weight [kg/km]		11	14	16	22	37	49	67

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ÖLFLEX® WIRE MS 2.25

UL-listed (MTW), H07V-K, tin-coated strands, UL recognised (AWM) + CSA AWM I A/B : Umax = 1000V

Info

- Higher voltage range according to UL & CSA

Benefits

- For use in the most important global markets
- Reduction in technical documentation
- Tin coating prevents corrosion
- Increases the cost-effectiveness of the production process
- Works with 'Conductor end sleeves XL, insulated'
- Easy storage

Application range

- Factory wiring
- Field wiring
- Frequency converter power supply
- Internal wiring of devices
- Control cabinet wiring

Product features

- Flame-retardant according IEC 60332-1-2
- Flame-retardant according to UL VW-1/ CSA FT1
- Oil-resistant 60°C & 80°C rating

Norm references / Approvals

- H07V-K acc. to EN50525-2-31
  UL (AWM) Style 10269, UL 758
  (File No. E502334)
  UL (MTW): UL 1063 (File E530349)
  CSA (AWM I A/B) : Cert. # 80158416

Product Make-up

- Conductor : Fine-wire strand made of Tinned copper wires
- Insulation : Special PVC-based core insulation

Technical data

Conductor stranding
Fine wire according to
Class 5/IEC 60228

Minimum bending radius
OD ≤ 8 mm: 4 x OD
8 < OD ≤ 12 mm: 5 x OD
OD > 12 mm: 6 x OD

Nominal voltage
IEC: U_0/U: 450/750 V
UL & CSA (AWM): U: 1000 V
UL (MTW): U: 600 V

Temperature range
Fixed installation:
IEC: -40°C to +70°C
UL & CSA (AWM): up to +105°C
UL (MTW): up to +90°C

		Conductor cross-section						
		0.5 mm²	0.75 mm²	1.0 mm²	1.5 mm²	2.5mm²	4.0 mm²	6.0 mm²
Insulation color	Green/Yellow	8201016400	8201016413	8201016426	8201016439	8201016452	8201016465	8201016478
	Black	8201016401	8201016414	8201016427	8201016440	8201016453	8201016466	8201016479
	Blue	8201016402	8201016415	8201016428	8201016441	8201016454	8201016467	8201016480
	Dark Blue	8201016403	8201016416	8201016429	8201016442	8201016455	8201016468	8201016481
	Brown	8201016404	8201016417	8201016430	8201016443	8201016456	8201016469	8201016482
	Pink	8201016405	8201016418	8201016431	8201016444	8201016457	8201016470	8201016483
	Violet	8201016406	8201016419	8201016432	8201016445	8201016458	8201016471	8201016484
	Orange	8201016407	8201016420	8201016433	8201016446	8201016459	8201016472	8201016485
	Red	8201016408	8201016421	8201016434	8201016447	8201016460	8201016473	8201016486
	White	8201016409	8201016422	8201016435	8201016448	8201016461	8201016474	8201016487
	Grey	8201016410	8201016423	8201016436	8201016449	8201016462	8201016475	8201016488
	Yellow	8201016411	8201016424	8201016437	8201016450	8201016463	8201016476	8201016489
	Green	8201016412	8201016425	8201016438	8201016451	8201016464	8201016477	8201016490
Outer diameter [mm]		2.7	2.9	3.1	3.4	4.0	4.6	5.1
Copper index [kg/km]		4.8	7.2	9.6	14.4	24.0	38.4	57.6
Weight [kg/km]		10	13	16	22	37	49	71

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ÖLFLEX® WIRE 1063 SC

Info

- The single core for Machine Tool Wire as well as in control systems
- The single core for Appliance Wiring Material
- The single core having flame-retardant is for dry/wet location

Benefits

- UL cables for legal installation in USA
- Oil resistant (PR I)
- Various Color of core : 13

Application range

- Machine Tool Wire, MTW, UL1063
- Appliance Wiring Material, AWM style 1015, UL 758
- Thermoplastic High Heat Resistance Water Resistance ,THHW, UL 83
- For dry/wet location

Product features

- UL VW-1
- Oil resistant (PR I)

Norm references / Approvals

- UL MTW[E502499], UL AWM[E331543], UL THHW[502494]
- 90°C (194°F) dry 75°C (167°F) wet

Product Make-up

- Conductor: Fine wire strands of tinned copper in acc. with IEC 60228 resp. VDE 0295, Class 5
- Insulation: Specially formulated PVC

Technical data

Conductor stranding
Fine wire strands of tinned copper in acc. with IEC 60228 resp.

Nominal voltage
600 V

Test voltage
2000 V

Minimum bending radius
Outer diameter ≤ 8mm
for normal use : 4 x Outer diameter
for cautions bending : 2 x Outer diameter
8< Outer diameter ≤ 12mm
for normal use : 5 x Outer diameter
for cautions bending : 3 x Outer diameter
Outer diameter > 12mm
for normal use : 6 x Outer diameter
for cautions bending : 4 x Outer diameter

Temperature range
UL MTW : up to +90°C
UL AWM : up to +105°C

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Gray	White	Yellow	Orange	Red	Violet	Blue
0.5	2.5	4.8	10	85141001	85141021	85141041	85141061	85141081	85141101	85141121
0.75	2.71	7.2	13	85141002	85141022	85141042	85141062	85141082	85141102	85141122
1	2.87	9.6	15	85141003	85141023	85141043	85141063	85141083	85141103	85141123
1.5	3.14	14.4	20	85141004	85141024	85141044	85141064	85141084	85141104	85141124
2.5	3.59	24.0	30	85141005	85141025	85141045	85141065	85141085	85141105	85141125
4	4.1	38.4	43	85141006	85141026	85141046	85141066	85141086	85141106	85141126
6	4.67	57.6	62	85141007	85141027	85141047	85141067	85141087	85141107	85141127
10	6.46	96.0	112	85141008	85141028	85141048	85141068	85141088	85141108	85141128
16	8.84	153.6	189	85141009	85141029	85141049	85141069	85141089	85141109	85141129
25	10.17	240.0	272	85141010	85141030	85141050	85141070	85141090	85141110	85141130
35	11.52	336.0	370	85141011	85141031	85141051	85141071	85141091	85141111	85141131
50	14.39	480.0	556	85141012	85141032	85141052	85141072	85141092	85141112	85141132
70	16.26	672.0	750	85141013	85141033	85141053	85141073	85141093	85141113	85141133
95	18.19	912.0	975	85141014	85141034	85141054	85141074	85141094	85141114	85141134
120	19.84	1152.0	1196	85141015	85141035	85141055	85141075	85141095	85141115	85141135
150	22.37	1440.0	1492	85141016	85141036	85141056	85141076	85141096	85141116	85141136
185	24.37	1776.0	1823	85141017	85141037	85141057	85141077	85141097	85141117	85141137
240	27.26	2304.0	2349	85141018	85141038	85141058	85141078	85141098	85141118	85141138
300	30.77	2880.0	2968	85141019	85141039	85141059	85141079	85141099	85141119	85141139
400	34.63	3840.0	3887	85141020	85141040	85141060	85141080	85141100	85141120	85141140

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Green	Brown	Black	Green/Yellow	Blue/White	White/Blue
0.5	2.5	4.8	10	85141141	85141161	85141181	85141201	85141221	85141241
0.75	2.71	7.2	13	85141142	85141162	85141182	85141202	85141222	85141242
1	2.87	9.6	15	85141143	85141163	85141183	85141203	85141223	85141243
1.5	3.14	14.4	20	85141144	85141164	85141184	85141204	85141224	85141244
2.5	3.59	24.0	30	85141145	85141165	85141185	85141205	85141225	85141245
4	4.1	38.4	43	85141146	85141166	85141186	85141206	85141226	85141246
6	4.67	57.6	62	85141147	85141167	85141187	85141207	85141227	85141247
10	6.46	96.0	112	85141148	85141168	85141188	85141208	85141228	85141248
16	8.84	153.6	189	85141149	85141169	85141189	85141209	85141229	85141249
25	10.17	240.0	272	85141150	85141170	85141190	85141210	85141230	85141250
35	11.52	336.0	370	85141151	85141171	85141191	85141211	85141231	85141251
50	14.39	480.0	556	85141152	85141172	85141192	85141212	85141232	85141252
70	16.26	672.0	750	85141153	85141173	85141193	85141213	85141233	85141253
95	18.19	912.0	975	85141154	85141174	85141194	85141214	85141234	85141254
120	19.84	1152.0	1196	85141155	85141175	85141195	85141215	85141235	85141255
150	22.37	1440.0	1492	85141156	85141176	85141196	85141216	85141236	85141256
185	24.37	1776.0	1823	85141157	85141177	85141197	85141217	85141237	85141257
240	27.26	2304.0	2349	85141158	85141178	85141198	85141218	85141238	85141258
300	30.77	2880.0	2968	85141159	85141179	85141199	85141219	85141239	85141259
400	34.63	3840.0	3887	85141160	85141180	85141200	85141220	85141240	85141260

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ÖLFLEX® WIRE 10269 SC

Info

- The single core for Machine Tool Wire as well as in control systems
- The single core for Appliance Wiring Material
- The single core having flame-retardant is for dry/wet location
- UL MTW: Compliance NFPA 79 and 70

Benefits

- UL cables for legal installation in USA
- Various Color of core

Application range

- Control cabinet wiring
- Internal wiring of devices
- Factory wiring
- Field wiring

Product features

- Flame retardant according to VW-1
- Oil resistant

Norm references / Approvals

- Machine Tool Wire, MTW, UL1063 [E502499]
- Appliance Wiring Material, AWM style 10269, UL 758 [E331543]
- Thermoplastic High Heat Resistance Water Resistance ,THHW, UL 83 [E502494]

Product Make-up

- Conductor: Fine wire strands of tinned copper in acc. with IEC 60228 resp. VDE 0295, Class 5
- Insulation: Specially formulated PVC

Technical data

Conductor stranding
Fine wire strands of tinned copper in acc. with IEC 60228 resp.

Nominal voltage
UL AWM: 1,000 V
UL MTW, THHW: 600 V

Test voltage
2000 V

Minimum bending radius
Outer diameter ≤ 8mm
for normal use : 4 x Outer diameter
for cautions bending : 2 x Outer diameter
8< Outer diameter ≤ 12mm
for normal use : 5 x Outer diameter
for cautions bending : 3 x Outer diameter
Outer diameter > 12mm
for normal use : 6 x Outer diameter
for cautions bending : 4 x Outer diameter

Temperature range
UL AWM : up to +105°C
UL MTW : up to +90°C
UL THHW : 90°C dry and 75°C wet

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Gray	White	Yellow	Orange	Red	Violet	Blue
0.5	2.5	4.8	10	85142001	85142021	85142041	85142061	85142081	85142101	85142121
0.75	2.71	7.2	13	85142002	85142022	85142042	85142062	85142082	85142102	85142122
1	2.87	9.6	15	85142003	85142023	85142043	85142063	85142083	85142103	85142123
1.5	3.14	14.4	20	85142004	85142024	85142044	85142064	85142084	85142104	85142124
2.5	3.59	24.0	30	85142005	85142025	85142045	85142065	85142085	85142105	85142125
4	4.1	38.4	43	85142006	85142026	85142046	85142066	85142086	85142106	85142126
6	4.67	57.6	62	85142007	85142027	85142047	85142067	85142087	85142107	85142127
10	6.46	96.0	112	85142008	85142028	85142048	85142068	85142088	85142108	85142128
16	8.84	153.6	189	85142009	85142029	85142049	85142069	85142089	85142109	85142129
25	10.17	240.0	272	85142010	85142030	85142050	85142070	85142090	85142110	85142130
35	11.52	336.0	370	85142011	85142031	85142051	85142071	85142091	85142111	85142131
50	14.39	480.0	556	85142012	85142032	85142052	85142072	85142092	85142112	85142132
70	16.26	672.0	750	85142013	85142033	85142053	85142073	85142093	85142113	85142133
95	18.19	912.0	975	85142014	85142034	85142054	85142074	85142094	85142114	85142134
120	19.84	1152.0	1196	85142015	85142035	85142055	85142075	85142095	85142115	85142135
150	22.37	1440.0	1492	85142016	85142036	85142056	85142076	85142096	85142116	85142136
185	24.37	1776.0	1823	85142017	85142037	85142057	85142077	85142097	85142117	85142137
240	27.26	2304.0	2349	85142018	85142038	85142058	85142078	85142098	85142118	85142138
300	30.77	2880.0	2968	85142019	85142039	85142059	85142079	85142099	85142119	85142139
400	34.63	3840.0	3887	85142020	85142040	85142060	85142080	85142100	85142120	85142140

Conductor cross-section (mm²)	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Green	Brown	Black	Green/Yellow	Blue/White	White/Blue
0.5	2.5	4.8	10	85142141	85142161	85142181	85142201	85142221	85142241
0.75	2.71	7.2	13	85142142	85142162	85142182	85142202	85142222	85142242
1	2.87	9.6	15	85142143	85142163	85142183	85142203	85142223	85142243
1.5	3.14	14.4	20	85142144	85142164	85142184	85142204	85142224	85142244
2.5	3.59	24.0	30	85142145	85142165	85142185	85142205	85142225	85142245
4	4.1	38.4	43	85142146	85142166	85142186	85142206	85142226	85142246
6	4.67	57.6	62	85142147	85142167	85142187	85142207	85142227	85142247
10	6.46	96.0	112	85142148	85142168	85142188	85142208	85142228	85142248
16	8.84	153.6	189	85142149	85142169	85142189	85142209	85142229	85142249
25	10.17	240.0	272	85142150	85142170	85142190	85142210	85142230	85142250
35	11.52	336.0	370	85142151	85142171	85142191	85142211	85142231	85142251
50	14.39	480.0	556	85142152	85142172	85142192	85142212	85142232	85142252
70	16.26	672.0	750	85142153	85142173	85142193	85142213	85142233	85142253
95	18.19	912.0	975	85142154	85142174	85142194	85142214	85142234	85142254
120	19.84	1152.0	1196	85142155	85142175	85142195	85142215	85142235	85142255
150	22.37	1440.0	1492	85142156	85142176	85142196	85142216	85142236	85142256
185	24.37	1776.0	1823	85142157	85142177	85142197	85142217	85142237	85142257
240	27.26	2304.0	2349	85142158	85142178	85142198	85142218	85142238	85142258
300	30.77	2880.0	2968	85142159	85142179	85142199	85142219	85142239	85142259
400	34.63	3840.0	3887	85142160	85142180	85142200	85142220	85142240	85142260

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ÖLFLEX® INFRA FR

ISI Marked PVC insulation single core

Info

- Standard lengths available in 90m, 180m, 270m
- FR-LSH and HFFR versions available upon request

Benefits

- ISI Marked

Application range

- Building wire for installation on wall surface or in concealed conduits
- For lighting and power applications in Buildings -Residential and Commercial, Hotels, Hospitals & IT Parks
- For use in dry rooms

Product features

- Flame retardant- IEC 60332.1/ IS 10810-53
- Higher conductivity
- Insulation of PVC Type D, with additional LAPP special properties

Norm references / Approvals

- IS 694 : 2010

Product Make-up

- Conductor: Stranded Annealed Bare copper
- Core Insulation : Lapp special PVC

Technical data

Conductor stranding
Class V as per IS 8130/IEC 60228

Minimum bending radius
Static-6 x cable diameter
Occasional flexing- 8 x cable diameter

Nominal voltage
1100 Volts

Temperature range
-5°C to 70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® INFRA FR					
8010012090	1 X 0.75	2.8	black	7.2	12
8010013090	1 X 1.0	3.0	black	9.6	15
8010023090	1 X 1.0	3.0	blue	9.6	15
8010123090	1 X 1.0	3.0	green	9.6	15
8010063090	1 X 1.0	3.0	grey	9.6	15
8010043090	1 X 1.0	3.0	red	9.6	15
8010053090	1 X 1.0	3.0	white	9.6	15
8010113090	1 X 1.0	3.0	yellow	9.6	15
8020011090	1 X 1.5	3.4	black	14.4	20
8020021090	1 X 1.5	3.4	blue	14.4	20
8020121090	1 X 1.5	3.4	green	14.4	20
8020001090	1 X 1.5	3.4	green-yellow	14.4	20
8020061090	1 X 1.5	3.4	grey	14.4	20
8020041090	1 X 1.5	3.4	red	14.4	20
8020051090	1 X 1.5	3.4	white	14.4	20
8020111090	1 X 1.5	3.4	yellow	14.4	20
8020015090	1 X 1.0	7.0	black	96.0	120
8020012090	1 X 2.5	4.1	black	24.0	33
8020022090	1 X 2.5	4.1	blue	24.0	33
8020042090	1 X 2.5	4.1	red	24.0	33

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ÖLFLEX® POWER LV PVC FR

PVC Insulated Heavy Duty Application FR PVC Cable As per IS 1554 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Double sheathed cable for heavy duty application

Benefits

- Wide range of products variant, up to 300 articles

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts

Product features

- Flame retardant: According to IEC 60332-1
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application

Norm references / Approvals

- IS 1554 (Part-I) 1988

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : PVC
- Inner Sheath : PVC
- Outer Sheath :
  i) PVC
  ii) PVC with UVAR
  iii) FRLS PVC
  iv) FRLS PVC with UVAR

Technical data

Core identification code
As per IS 1554 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
10 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV FR - RIYYY1BK				
382003146	2 X 1.5	11.4	26.6	178
382003147	3 X 1.5	11.9	40.0	203
382003148	4 X 1.5	12.8	53.2	240
382003156	12 X 1.5	18.3	159.8	459
382003164	20 X 1.5	22.5	266.4	706
382003206	2 X 2.5	12.6	43.5	227
382003207	3 X 2.5	13.2	65.3	262
382003208	4 X 2.5	14.2	87.0	313
382003216	12 X 2.5	21.2	261.0	650
382003224	20 X 2.5	25.7	435.0	982
382003285	2 X 4	14.0	69.2	292
382003300	3 X 4	14.7	103.8	344
382003326	4 X 4	15.9	138.4	415
ÖLFLEX® POWER LV FR UVAR - RIYYYUVAR1BK				
382003340	2 X 1.5	11.4	26.6	178
382003341	3 X 1.5	11.9	40.0	203
382003342	4 X 1.5	12.8	53.3	240
382003479	2 X 4	14.0	69.2	292
382003494	3 X 4	14.7	103.8	344
382003520	4 X 4	15.9	138.4	415
ÖLFLEX® POWER LV FRLS - RIYYYC11BK				
382003535	3 X 1.5	11.9	40.0	211
382003536	4 X 1.5	12.8	53.3	249
382003595	3 X 1.5	13.2	65.2	271
382003596	4 X 2.5	14.2	87.0	322
382003688	3 X 4	14.7	103.8	354
382003714	4 X 4	15.9	138.4	426

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV FRLS - RIYYC1YC11BK				
382003923	3 X 1.5	11.9	40.0	215
382003924	4 X 1.5	12.8	53.3	253
382003983	3 X 2.5	13.2	65.2	276
382003984	4 X 2.5	14.2	87.0	328
382004057	3 X 4	14.7	103.8	360
382004083	4 X 4	15.9	138.4	433
ÖLFLEX® POWER LV FRLS UVAR - RIYYC1YC1UVAR1BK				
382004098	3 X 1.5	11.9	40.0	215
382004099	4 X 1.5	12.8	53.3	253
382004232	3 X 4	14.7	103.8	360
382004258	4 X 4	15.9	138.4	433
ÖLFLEX® POWER LV FRLS UVAR - RIYYYC1UVAR1BK				
382003729	3 X 1.5	11.9	40.0	211
382003729	4 X 1.5	12.8	53.3	249
382003729	3 X 2.5	13.2	65.2	271
382003729	4 X 2.5	14.2	87.0	322
382003729	3 X 4	14.7	103.8	354
382003729	4 X 4	15.9	138.4	426
382003729	3 X 25 + 1 X 16	25.3	797.0	1,265

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ÖLFLEX® POWER LV PVC FR ARM

PVC Insulated Heavy Duty Application FR PVC Armoured Cable
As per IS 1554 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Armoured and double sheathed FR cable for heavy duty / direct burial application

Benefits

- Wide range of product variants, up to 300 articles

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts
- Armoured cable best suitable for heavy duty installations

Norm references / Approvals

- IS 1554 (Part-I) 1988

Product features

- Flame retardant: According to IEC 60332-1
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : PVC
- Inner Sheath :
  i) PVC
  ii) FRLS PVC
- Mechanical Protection :
  i) WA - Aluminium Wire Armour
  ii) SWA - GI wire Armour
  iii) SSA - GI strip Armour
- Outer Sheath :
  i) PVC
  ii) PVC with UVAR
  iii) FRLS PVC
  iv) FRLS PVC with UVAR

Technical data

Core identification code
As per IS 1554 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
15 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV FR SSA - RIYYSSAY1BK				
382004280	10 X 1.5	18.8	133.2	676
382004284	14 X 1.5	20.5	186.5	825
382004289	19 X 1.5	22.4	253.1	1,010
382004294	24 X 1.5	25.6	319.7	1,210
382004297	27 X 1.5	26.1	359.6	1,309
382004340	10 X 2.5	21.6	217.6	890
382004414	3 X 16	20.6	277.4	972
ÖLFLEX® POWER LV FR SWA - RIYSWAY1BK				
382004392	1 X 4	11.0	34.6	263
ÖLFLEX® POWER LV FR SWA - RIYYSWAY1BK				
382004272	2 X 1.5	13.6	26.6	392
382004273	3 X 1.5	14.1	40.0	440
382004274	4 X 1.5	15.0	53.3	500
382004275	5 X 1.5	15.9	66.6	563
382004277	7 X 1.5	16.8	93.2	610
382004332	2 X 2.5	14.8	43.5	608
382004333	3 X 2.5	15.4	65.2	522
382004334	4 X 2.5	16.4	87.0	608
382004411	2 X 4	16.2	69.2	575
382004453	4 X 6	20.0	207.2	924
ÖLFLEX® POWER LV FR SSA UVAR - RIYSSAYUVAR1BK				
382004604	1 X 1000	55.8	9,017.6	11,501
ÖLFLEX® POWER LV FR SSA UVAR - RIYYSSAYUVAR1BK				
382004476	12 X 1.5	19.7	159.8	770
382004482	18 X 1.5	22.4	239.7	988
382004489	25 X 1.5	25.6	333.0	1,233
382004536	12 X 2.5	22.2	261.0	965
382004635	3 X 25 + 1 X 16	26.3	797.0	1,656
382004659	4 X 300	68.1	10,563.0	14,055
382004634	3 X 400	64.7	10,130.4	13,357

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV FR SWA UVAR - RIYYSWAYUVAR1BK				
382004466	2 X 1.5	13.6	26.6	392
382004467	3 X 1.5	14.1	40.0	440
382004468	4 X 1.5	15.0	53.3	500
382004469	5 X 1.5	15.9	66.6	563
382004471	7 X 1.5	16.8	93.2	610
382004527	3 X 2.5	15.4	65.2	522
382004620	3 X 4	16.9	103.8	650
382004646	4 X 4	18.1	138.4	745
ÖLFLEX® POWER LV FRLS ARM - RIYWAYC11BK				
382005437	1 X 6	11.6	51.8	217
ÖLFLEX® POWER LV FRLS SWA - RIYYC1SWAYC11BK				
382005050	4 X 1.5	15.0	53.3	154
382005052	6 X 1.5	16.8	79.9	600
382005109	3 X 2.5	15.4	65.2	537
382005110	4 X 2.5	16.4	87.0	623
382005183	3 X 4	16.9	103.8	667
382005209	4 X 4	18.1	138.4	763
ÖLFLEX® POWER LV FRLS SWA - RIYYSWAYC11BK				
382004661	3 X 1.5	14.1	40.0	448
382004662	4 X 1.5	15.0	53.3	509
382004721	3 X 2.5	15.4	65.2	531
382004722	4 X 2.5	16.4	87.0	618
382004814	3 X 4	16.9	103.8	660
382004840	4 X 4	18.1	138.4	756
ÖLFLEX® POWER LV FRLS SW UVAR - RIYYSWAYC1UVAR1BK				
382004856	4 X 1.5	15.0	53.3	509
382004857	5 X 1.5	15.9	66.6	572
382004916	4 X 2.5	16.4	87.0	618
382005008	3 X 4	16.9	103.8	660
382005034	4 X 4	18.1	138.4	756
ÖLFLEX® POWER LV FRLS SWA UVAR - RIYYC1SWAYC1UVAR1BK				
382005225	4 X 1.5	15.0	53.3	514
382005285	4 X 2.5	16.4	87.0	623
382005358	3 X 4	16.9	103.8	667

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ÖLFLEX® POWER LV HR PVC FR

PVC Insulated Heavy Duty Application Heat Resistant (HR) FR PVC Cable
As per IS 1554 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Double sheathed FR cable for heavy duty application

Benefits

- Wide range of product variants, up to 300 articles
- Expanded temperature application

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts
- For expanded temperature application

Norm references / Approvals

- IS 1554 (Part-I) 1988

Product features

- Flame retardant: According to IEC 60332-1
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : PVC
- Inner Sheath : PVC
- Outer Sheath :
  i) PVC
  ii) PVC with UVAR
  iii) FRLS PVC
  iv) FRLS PVC with UVAR

Technical data

Core identification code
As per IS 1554 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
10 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +85°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV HR FR - RIY3Y21BK				
382005594	1 X 4	8.2	34.6	108
ÖLFLEX® POWER LV HR FR - RIY3Y2Y21BK				
382005474	2 X 1.5	12.8	53.2	240
382005475	3 X 1.5	18.3	159.8	459
382005476	4 X 1.5	22.5	266.4	706
382005482	10 X 1.5	12.6	43.5	227
382005492	20 X 1.5	13.2	65.3	262
382005535	3 X 2.5	14.2	87.0	313
382005536	4 X 2.5	21.2	261.0	650
382005542	10 X 2.5	25.7	435.0	982
382005552	20 X 2.5	14.0	69.2	292
382005628	3 X 4	14.7	103.8	344
382005654	4 X 4	15.9	138.4	415
382005630	3 X 10	15.9	138.4	415
382005656	4 X 10	11.4	26.6	178
ÖLFLEX® POWER LV HR FR UVAR - RIY3Y2UVAR1BK				
382005788	1 X 4	12.8	53.3	240
ÖLFLEX® POWER LV HR FR UVAR - RIY3Y2Y2UVAR1BK				
382005668	2 X 1.5	11.4	26.6	178
382005669	2 X 1.5	11.9	40.0	203
382005670	4 X 1.5	12.8	53.3	240
382005729	3 X 2.5	13.2	65.2	262
382005730	4 X 2.5	14.2	87.0	313
382005736	10 X 2.5	20.6	217.5	574
382005746	20 X 2.5	25.7	435.0	982
382005822	3 X 4	14.7	103.8	344
382005848	4 X 4	15.9	138.4	415

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV HR FRLS - RIY3Y2YC21BK				
382005863	3 X 1.5	11.9	40.0	211
382005864	4 X 1.5	12.8	53.3	249
382005870	10 X 1.5	17.8	133.2	421
382005923	3 X 2.5	13.2	65.2	271
382005924	4 X 2.5	14.2	87.0	322
382006001	2 X 4	14.0	69.2	302
382006018	3 X 10	18.0	261.5	609
382006021	3 X 35	27.0	913.3	1,608
ÖLFLEX® POWER LV HR FRLS - RIY3YC2YC21BK				
382006251	3 X 1.5	11.9	103.8	360
382006252	4 X 1.5	12.8	138.4	433
382006311	3 X 2.5	13.2	138.4	433
382006312	4 X 2.5	14.2	40.0	211
382006385	3 X 4	14.7	53.3	249
382006413	4 X 10	19.9	65.2	271
ÖLFLEX® POWER LV HR FRLS UVAR - RIY3Y2YC2UVAR1BK				
382006057	3 X 1.5	11.9	40.0	211
382006058	4 X 1.5	12.8	53.3	249
382006117	3 X 2.5	13.2	65.2	271
382006118	4 X 2.5	14.2	87.0	322
382006213	3 X 16	20.8	416.1	862
ÖLFLEX® POWER LV HR FRLS UVAR - RIY3YC2YC2UVAR1BK				
382006424	3 X 1.5	11.9	40.0	215
382006427	4 X 1.5	12.8	53.3	253
382006486	3 X 2.5	13.2	65.2	276
382006487	4 X 2.5	14.2	87.0	328
382006586	4 X 4	15.9	138.4	433
382006563	3 X 16	20.8	416.1	876

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ÖLFLEX® POWER LV HR PVC FR ARM

PVC Insulated Heavy Duty Application Heat Resistant (HR) FR PVC Armoured Cable As per IS 1554 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Armoured and double sheathed FR cable for heavy duty / direct burial application

Benefits

- Wide range of product variants, up to 300 articles
- Extra mechanical protection due to Steel Armour
- Expanded temperature application

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts
- Armoured cable best suitable for heavy duty installations
- For expanded temperature application
- Particularly where human and animal life as well as valuable property are exposed to risk of fire hazards

Product features

- Flame retardant: According to IEC 60332-1-2 / IEC 60332-3-24
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application
- Oxygen Index(Min.) : >29% as per ASTM D 2863 (only for FRLS Outer Sheath)
- Temp. Index (Min.) : >250 Deg C as per ASTM D 2863 (only for FRLS Outer Sheath)
- HCL gas emission (Max.): 20% By weight; Smoke Density : Min. Visibility 40% (only for FRLS Outer Sheath)

Norm references / Approvals

- IS 1554 (Part-I) 1988

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : PVC
- Inner Sheath :
  i) PVC
  ii) FRLS PVC
- Mechanical Protection :
  i) WA - Aluminium Wire Armour
  ii) SWA - GI wire Armour
  iii) SSA - GI strip Armour
- Outer Sheath :
  i) FRLS PVC
  ii) FRLS PVC with UVAR

Technical data

Core identification code
As per IS 1554 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
15 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +85°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV HR FR SSA - RIY3Y2SSAY21BK				
382006610	12 X 1.5	19.7	159.8	770
382006670	12 X 2.5	22.2	261.0	965
ÖLFLEX® POWER LV HR FR SWA - RIY3Y2SWAY21BK				
382006600	2 X 1.5	13.6	26.6	392
382006601	3 X 1.5	14.1	40.0	440
382006602	4 X 1.5	15.0	53.3	500
382006605	7 X 1.5	16.8	93.2	610
382006661	3 X 2.5	15.4	65.2	522
382006662	4 X 2.5	16.4	87.0	608
382006665	7 X 2.5	18.6	152.2	760
382006739	2 X 4	16.2	69.2	575
382006754	3 X 4	16.9	103.8	650
382006780	4 X 4	18.1	138.4	745
ÖLFLEX® POWER LV HR FR SSA UVAR - RIY3Y2SSAY2UVAR1BK				
382006804	12 X 1.5	19.7	159.8	770
382006864	12 X 2.5	22.2	261.0	965
382006863	3 X 25 + 1 X 16	26.3	797.0	1,656
ÖLFLEX® POWER LV HR FR SWA UVAR - RIY3Y2SWAY2UVAR1BK				
382006795	3 X 1.5	14.1	40.0	440
382006796	4 X 1.5	15.0	53.3	500
382006855	3 X 2.5	15.4	65.2	522
382006856	4 X 2.5	16.4	87.0	608
382006948	3 X 4	16.9	103.8	650
382006974	4 X 4	18.1	138.4	745

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV HR FRLS SWA - RIY3Y2SWAYC21BK				
382006989	3 X 1.5	14.1	40.0	448
382006990	4 X 1.5	15.0	53.3	509
382007049	3 X 2.5	15.4	65.2	531
382007050	4 X 2.5	16.4	87.0	618
382007142	3 X 4	16.9	103.8	660
382007168	4 X 4	18.1	138.4	756
ÖLFLEX® POWER LV HR FRLS SWA - RIY3YC2SWAYC21BK				
382007377	3 X 1.5	14.1	40.0	452
382007378	4 X 1.5	15.0	53.3	514
382007437	3 X 2.5	15.4	65.2	537
382007438	4 X 2.5	16.4	87.0	623
382007511	3 X 4	16.9	103.8	667
382007537	4 X 4	18.1	138.4	763
ÖLFLEX® POWER LV HR FRLS SWA UVAR - RIY3Y2SWAYC2UVAR1BK				
382007183	3 X 1.5	14.1	40.0	448
382007184	4 X 1.5	15.0	53.3	509
382007243	3 X 2.5	15.4	65.2	531
382007244	4 X 2.5	16.4	87.0	618
382007336	3 X 4	16.9	103.8	660
382007362	4 X 4	18.1	138.4	756
ÖLFLEX® POWER LV HR FRLS SWA UVAR - RIY3YC2SWAYC2UVAR1BK				
382007552	3 X 1.5	14.1	40.0	452
382007553	4 X 1.5	15.0	53.3	514
382007612	3 X 2.5	15.4	65.2	537
382007613	4 X 2.5	16.4	87.0	623
382007686	3 X 4	16.9	103.8	667
382007712	4 X 4	18.1	138.4	763

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ÖLFLEX® POWER LV 2X FR

XLPE Insulated Heavy Duty Application FR PVC Cable As per IS 7098 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Double sheathed cable for heavy duty application

Benefits

- Wide range of product variants, up to 300 articles

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts
- For expanded temperature application

Norm references / Approvals

- IS 7098 (Part-I) 1988

Product features

- Flame retardant: According to IEC 60332-1
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : XLPE
- Inner Sheath :
  i) PVC
  ii) FRLS PVC
  iii) LSZH
- Outer Sheath :
  i) PVC
  ii) PVC with UVAR
  iii) FRLS PVC
  iv) FRLS PVC with UVAR
  v) LSZH
  vi) LSZH with UVAR

Technical data

Core identification code
As per IS 7098 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
10 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV 2X FR - RI2XY2Y21BK				
382000005	3 X 1.5	11.5	40.0	183
382000006	4 X 1.5	12.3	53.3	214
382000012	10 X 1.5	17.0	133.2	357
382000014	12 X 1.5	17.5	159.8	400
382000022	20 X 1.5	21.4	266.4	609
382000065	3 X 2.5	12.4	65.2	228
382000066	4 X 2.5	13.2	87.0	267
382000072	10 X 2.5	18.6	217.5	470
382000074	12 X 2.5	19.2	261.0	532
382000082	20 X 2.5	23.5	435.0	823
382000158	3 X 4	13.4	103.8	288
382000184	4 X 4	14.5	138.4	349
382000159	3 X 6	14.7	155.4	370
382000185	4 X 6	15.9	207.2	450
382000160	3 X 10	16.7	261.5	526
382000186	4 X 10	18.1	348.7	647
382000188	4 X 25	25.3	877.7	1,411
382000189	4 X 35	28.2	1,217.7	1,851
ÖLFLEX® POWER LV 2X FR UVAR - RI2XY2Y2UVAR1BK				
382000199	3 X 1.5	11.5	40.0	183
382000200	4 X 1.5	12.3	53.3	214
382000206	10 X 1.5	17.0	133.2	357
382000216	20 X 1.5	21.4	266.4	609
382000259	3 X 2.5	12.4	65.2	228
382000260	4 X 2.5	13.2	87.0	267
382000266	10 X 2.5	18.6	217.5	470
382000276	20 X 2.5	23.5	435.0	823
382000383	4 X 35	28.2	1,217.7	1,851
ÖLFLEX® POWER LV 2X FRLS - RI2XY2YC21BK				
382000393	3 X 1.5	11.5	40.0	191
382000394	4 X 1.5	12.3	53.3	222
382000400	10 X 1.5	17.0	133.25	369
382000402	12 X 1.5	17.5	159.8	412
382000453	3 X 2.5	12.4	65.2	237
382000454	4 X 2.5	13.2	87.0	276
382000460	10 X 2.5	18.6	217.5	483
382000462	12 X 2.5	19.2	261.0	546
382000573	4 X 6	15.9	207.2	461
382000574	4 X 10	18.1	348.7	660
382000575	4 X 16	21.2	554.8	964
382000576	4 X 25	25.3	877.7	1,432

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV 2X FRLS - RI2XYC2YC21BK				
382000781	3 X 1.5	11.5	40.0	195
382000841	3 X 2.5	12.4	65.2	241
382000915	3 X 4	13.4	103.8	303
382000916	3 X 6	14.7	155.4	387
ÖLFLEX® POWER LV 2X FRLS UVAR - RI2XY2YC2UVAR1BK				
382000587	3 X 1.5	11.5	10.0	191
382000589	5 X 1.5	13.1	66.6	255
382000603	19 X 1.5	20.4	253.1	594
382000608	24 X 1.5	23.4	319.7	727
382000647	3 X 2.5	12.4	65.2	237
382000648	4 X 2.5	13.2	87.0	276
382000654	10 X 2.5	18.6	217.5	483
382000656	12 X 2.5	19.2	261.0	546
382000725	3 X 4	12.8	69.2	254
382000740	4 X 4	13.4	103.8	297
382000742	3 X 10	16.7	261.5	537
ÖLFLEX® POWER LV 2X FRLS UVAR - RI2XYC2YC2UVAR1BK				
382001094	3 X 25	23.1	658.3	1,159
382001120	4 X 25	25.3	877.7	1,451
ÖLFLEX® POWER LV 2X LSZH - RI2XHXHX1BK				
382001131	3 X 1.5	11.5	40.0	195
382001132	4 X 1.5	12.3	53.3	226
382001138	10 X 1.5	17.0	133.2	373
382001140	12 X 1.5	17.5	159.8	416
382001191	3 X 2.5	12.4	65.2	241
382001192	4 X 2.5	13.2	87.0	281
382001208	20 X 2.5	23.5	435.0	846
382001198	10 X 2.5	18.6	217.5	487
382001284	3 X 4	13.4	103.8	303
382001310	4 X 4	14.5	138.4	365
382001287	3 X 16	19.1	416.1	770
382001312	4 X 10	18.1	348.7	670
ÖLFLEX® POWER LV 2X LSZH - RI2XHXHX1BK				
382001325	3 X 1.5	11.5	40.0	195
382001326	4 X 1.5	12.3	53.3	226
382001332	10 X 1.5	17.0	133.2	373
382001342	20 X 1.5	21.4	266.4	631
382001385	3 X 2.5	12.4	65.2	241
382001386	4 X 2.5	13.2	87.0	281
382001392	10 X 2.5	18.6	217.5	487
382001402	20 X 2.5	23.5	435.0	846
382001478	3 X 4	13.4	103.8	303
382001504	4 X 4	14.5	138.4	365
382001480	3 X 10	16.7	261.5	546
382001508	4 X 25	25.3	877.7	1,451

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ÖLFLEX® POWER LV 2X FR ARM

XLPE Insulated Heavy Duty Application FR PVC Armoured Cable
As per IS 7098 (Part-I) 1988

Info

- Low voltage power cable 650/1100 V
- Armoured and double sheathed cable for heavy duty / direct burial application

Benefits

- Wide range of product variants, up to 300 articles
- Extra mechanical protection due to Steel Armour

Application range

- For main power distribution and lighting circuits in residential and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts
- Armoured cable best suitable for heavy duty installations
- For expanded temperature application

Norm references / Approvals

- IS 7098 (Part-I) 1988

Product features

- Flame retardant: According to IEC 60332-1
- UV - resistant outer sheath for outdoor application and AR best suitable anti rodent application

Product Make-up

- Conductor : Annealed bare copper conductor of Class II as per IS 8130
- Insulation : XLPE
- Inner Sheath :
  i) PVC
  ii) FRLS PVC
  iii) LSZH
- Mechanical Protection :
  i) WA - Aluminium Wire Armour;
  ii) SWA - GI wire Armour;
  iii) SSA - GI strip Armour
- Outer Sheath :
  i) PVC
  ii) PVC with UVAR
  iii) FRLS PVC
  iv) FRLS PVC with UVAR
  v) LSZH
  vi) LSZH with UVAR

Technical data

Core identification code
As per IS 7098 (Part-I) 1988

Conductor stranding
Class II as per IS 8130

Minimum bending radius
15 Times the OD

Nominal voltage
1100 Volts

Temperature range
-5°C up to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV 2X FR SSA - RI2XY2SSAY21BK				
382001528	12 X 1.5	18.5	159.8	668
382001532	16 X 1.5	20.5	213.1	803
382001540	24 X 1.5	24.4	319.7	1072
382001588	12 X 2.5	20.6	261.0	843
382001700	4 X 10	19.5	348.7	933
382001701	4 X 16	22.2	554.8	1,262
382001702	4 X 25	26.3	877.7	1,823
382001703	4 X 35	29.2	1,217.7	2,309
ÖLFLEX® POWER LV 2X FR SSA - RI2XY2SSAY21BK				
382001518	2 X 1.5	13.2	26.6	364
382001519	3 X 1.5	13.7	40.0	409
382001520	4 X 1.5	14.5	53.3	451
382001521	5 X 1.5	15.3	66.6	506
382001522	6 X 1.5	16.2	79.9	531
382001523	7 X 1.5	16.2	93.2	550
382001525	9 X 1.5	18.6	119.9	685
382001524	8 X 1.5	17.6	106.6	620
382001526	10 X 1.5	19.6	133.2	741
382001578	2 X 2.5	14.0	43.5	422
382001579	3 X 2.5	14.6	65.2	477
382001580	4 X 2.5	15.4	87.0	527
382001672	3 X 4	15.6	103.8	560
382001698	4 X 4	16.7	138.4	644
382001673	3 X 6	16.9	155.4	677
382001699	4 X 6	18.1	207.2	780
382001674	3 X 10	19.3	261.5	897
ÖLFLEX® POWER LV 2X FR SSA UVAR - RI2XY2SSAY2UVAR1BK				
382001726	16 X 1.5	20.5	213.1	803
382001742	32 X 1.5	26.5	426.2	1,294
382001869	3 X 16	20.5	416.1	1,055
382001895	4 X 16	22.2	554.8	1,262

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV 2X FR SWA UVAR - RI2XY2SWAY2UVAR1BK				
382001712	2 X 1.5	13.2	26.6	364
382001714	4 X 1.5	14.5	53.3	451
382001713	3 X 1.5	13.7	40.0	409
382001773	3 X 2.5	14.6	65.2	477
382001774	4 X 2.5	15.4	87.0	527
382001866	3 X 4	15.6	103.8	560
382001892	4 X 4	16.7	138.4	644
382001867	3 X 6	16.9	155.4	677
ÖLFLEX® POWER LV 2X LSZH SSA - RI2XHXSSAHX1BK				
382002662	20 X 1.5	22.9	266.4	1,794
382002722	20 X 2.5	25.0	435.0	2,122
382002826	4 X 10	20.0	348.7	1,654
ÖLFLEX® POWER LV 2X LSZH SWA - RI2XHXSWAHX1BK				
382002652	10 X 1.5	20.1	133.2	1,461
382002645	3 X 1.5	14.2	40.0	1,575
382002646	4 X 1.5	15.0	53.3	1,704
382002704	2 X 2.5	14.5	43.5	1,622
382002705	3 X 2.5	15.1	65.2	1,742
382002706	4 X 2.5	15.9	87.0	1,879
382002783	2 X 4	15.5	69.2	1,816
382002798	3 X 4	16.1	103.8	1,935
382002824	4 X 4	17.2	138.4	1,844
382002800	3 X 10	19.8	261.5	2,294
ÖLFLEX® POWER LV 2X LSZH UVAR - RI2XHXHXUVAR1BK				
382001517	4 X 300	59.1	10,563.0	12,166
382001503	3 X 400 + 1 X 185	65.9	11,731.9	13,618
ÖLFLEX® POWER LV 2X LSZH SSA UVAR - RI2XHXSSAHXUVAR1BK				
382003020	4 X 10	20.0	348.7	1,654
382002995	3 X 16	21.0	416.1	1,823
ÖLFLEX® POWER LV 2X LSZH SWA UVAR - RI2XHXSWAHXUVAR1BK				
382002839	3 X 1.5	14.2	40.0	1,575
382002840	4 X 1.5	15.0	53.3	1,704
382002899	3 X 2.5	15.1	65.2	1,742
382002900	4 X 2.5	15.9	87.0	1,879
382003018	4 X 4	17.2	138.4	1,844

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ÖLFLEX® POWER LV (N)YY

Low voltage power cables

Info

- Low voltage power cable 0.6/1 kV
- Unarmoured, PVC/PVC

Application range

- For main power distribution and lighting circuits in residential, industrial and commercial areas
- Power and control circuit
- Telecom power supply

Product features

- Flame-retardant acc. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Stranded or solid plain annealed copper wire in circular or sectorial shape conductor
- PVC core insulation
- PVC sheath
- Sheath colour, gn/ye for single core and black for multicore

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to BS 7671:2004

Conductor stranding
acc. to IEC 60228 Cl.1 and Cl. 2

Minimum bending radius
Fixed installation: 8 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
Fixed installation: -20°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV (N)YY - Solid Conductor (Class 1)				
3800100	1 X 1.5	6.0	14.0	52
3800108	1 X 2.5	6.4	22.5	65
3800116	1 X 4	7.3	36.0	95
3800102	2 X 1.5	10.0	28.5	135
3800110	2 X 2.5	10.8	45.8	170
3800118	2 X 4	12.5	73.6	240
3800104	3 X 1.5	10.5	42.8	160
3800112	3 X 2.5	11.4	68.6	200
3800120	3 X 4	13.2	110.4	290
3800106	4 X 1.5	11.3	57.0	185
3800114	4 X 2.5	12.3	91.5	240
3800122	4 X 4	14.4	147.2	350
3804001	5 X 1.5	12.2	69.8	203
3804003	5 X 2.5	13.4	115.0	275
3804004	5 X 4	16.0	184.0	408
ÖLFLEX® POWER LV (N)YY - Stranded Conductor (Class 2)				
3800101	1 X 1.5	6.2	14.0	55
3800109	1 X 2.5	6.7	22.4	70
3800117	1 X 4	7.6	36.0	100
3800124	1 X 6	8.2	54.0	125
3800128	1 X 10	9.2	90.0	175
3800133	1 X 16	10.2	144.0	240
3800138	1 X 25	11.9	228.0	350
3800146	1 X 35	13.1	317.8	460
3800154	1 X 50	14.8	454.0	595
3800159	1 X 70	16.6	635.6	810
3800164	1 X 95	19.2	862.6	1,110
3800103	2 X 1.5	10.4	28.5	145
3800111	2 X 2.5	11.5	45.8	180
3800119	2X 4	13.5	73.6	255
3800125	2X 6	15.0	110.4	285
3800129	2X 10	17.0	184.0	395
3800134	2 X 16	19.0	294.4	590
3800139	2 X 25	22.0	465.0	900
3800148	2 X 35 (S)	20.0	644.0	930
3800155	2 X 50 (S)	23.0	920.0	1,260
3800160	2 X 70 (S)	26.0	1,288.0	1,700
3800165	2 X 95 (S)	30.0	1,748.0	2,310

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3800105	3 X 1.5	11.5	42.8	165
3800113	3 X 2.5	12.0	68.6	210
3800121	3 X 4	14.0	110.4	305
3800126	3 X 6	15.5	165.6	370
3800130	3 X 10	17.5	278.0	515
3800135	3 X 16	20.0	441.6	740
3800141	3 X 25	24.0	697.5	1,160
3800150	3 X 35 (S)	23.0	966.0	1,330
3800156	3 X 50 (S)	26.0	1,380.0	1,750
3800161	3 X 70 (S)	29.0	1,932.0	2,435
3800166	3 X 95 (S)	35.0	2,622.0	3,360
3800107	4 X 1.5	12.0	57.0	200
3800115	4 X 2.5	13.0	91.5	255
3800123	4 X 4	15.5	147.2	375
3800127	4 X 6	17.0	220.8	455
3800132	4 X 10	19.0	368.0	665
3800137	4 X 16	22.0	588.8	930
3800144	4 X 25	25.6	930.0	1,465
3800151	3 X 35 + 16	24.7	1,116.2	1,570
3800153	4 X 35 (S)	26.0	1,288.0	1,740
3800157	3 X 50 + 25	28.3	1,544.8	2,220
3800158	4 X 50 (S)	29.0	1,840.0	2,320
3800162	3 X 70 + 35	32.0	2,219.3	2,930
3800163	4 X 70 (S)	33.0	2,576.0	3,215
3800167	3 X 95 + 50	37.5	3,066.7	3,530
3800168	4 X 95 (S)	39.0	3,496.0	4,400
3804002	5 X 1.5	12.4	69.8	2,025
3800970	5 X 2.5	13.4	115.0	275
3800971	5 X 4	16.0	184.0	408
3804005	5 X 6	17.5	276.0	545
3804006	5 X 10	20.0	460.0	811
3804007	5 X 16	23.0	736.0	1,195
3804008	5 X 25	27.6	1,162.5	1,814
3800972	5 X 35	31.0	1,627.5	2,450
3804009	7 X 1.5	13.2	97.7	260
3804010	12 X 1.5	17.0	167.4	408
3804018	7 X 2.5	14.5	161.0	356
3804019	12 X 2.5	18.7	276.0	571

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CE

ÖLFLEX® POWER LV (N)YYRY

Low voltage power cables

Info

- Low voltage power cable 0.6/1 kV
- Armoured, PVC/PVC/SWA/PVC

Application range

- For main power distribution and lighting circuits in residential, industrial and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts

Product features

- Flame-retardant acc. to IEC 60332-1-2

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Stranded plain annealed copper wires in circular shape conductor
- PVC core insulation
- PVC inner sheath, black
- Galvanized steel wire armoured
- PVC outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to BS 7671:2004

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
Fixed installation: -20°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV (N)YYRY				
3803077	2 X 1.5	13.8	28.5	335
3800199	3 X 1.5	14.3	42.8	375
3800200	4 X 1.5	15.1	57.0	425
3800201	5 X 1.5	16.0	70.0	480
3800202	7 X 1.5	17.7	98.0	644
3800203	10 X 1.5	21.0	140.0	835
3800204	12 X 1.5	21.5	168.0	899
3803078	14 X 1.5	23.0	196.0	1,113
3803079	16 X 1.5	24.0	224.0	1,188
3800205	19 X 1.5	24.8	266.0	1,305
3802972	21 X 1.5	26.0	294.0	1,398
3800206	27 X 1.5	28.5	378.0	1,656
3800207	37 X 1.5	31.5	518.0	2,024
3800209	3 X 2.5	15.2	68.4	439
3800210	4 X 2.5	16.2	91.2	503
3800211	5 X 2.5	17.9	114.0	670
3800212	7 X 2.5	19.0	158.2	776
3800213	10 X 2.5	23.3	226.0	1,145
3800214	12 X 2.5	24.0	271.2	1,240
3800215	19 X 2.5	27.0	442.0	1,630
3802974	21 X 2.5	28.1	488.0	1,750
3800216	27 X 2.5	31.3	628.0	2,115
3800217	37 X 2.5	36.0	860.0	2,891
3800219	3 X 4	18.0	110.4	666
3800220	4 X 4	19.2	147.2	770
3800221	5 X 4	20.4	184.0	874
3800222	7 X 4	21.8	257.6	1,039
3800223	10 X 4	27.1	368.0	1,532
3800224	12 X 4	27.8	441.6	1,691
3800225	19 X 4	32.0	699.2	2,292
3800226	27 X 4	39.0	993.6	3,330
3800227	37 X 4	43.1	1,361.6	4,147
3802971	2 X 6	18.4	110.4	672
3800229	3 X 6	19.2	165.6	786
3800230	4 X 6	20.6	220.8	916
3800231	5 X 6	22.0	276.0	1,058
3800232	3 X 10	21.2	277.8	1,009
3800233	4 X 10	23.5	370.4	1,333
3800234	5 X 10	25.2	370.4	1,536
3803075	4 X 16	26.1	588.8	1,736
3803076	4 X 25	30.5	926.0	2,379

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ÖLFLEX® POWER LV (N)2XY

XLPE insulation

Info

- Low voltage power cable 0.6/1 kV
- Unarmoured, XLPE/PVC

Application range

- For main power distribution and lighting circuits in residential, industrial and commercial areas
- Power and control circuit
- Telecom power supply

Product features

- Flame-retardant acc. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Stranded plain annealed copper wires in circular shape conductor
- XLPE core insulation
- PVC sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to BS 7671:2004

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
Fixed installation: 8 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV (N)2XY				
3800250	1 X 16	9.4	147.2	205
3800254	1 X 25	11.1	230.0	309
3800262	1 X 35	12.4	322.0	412
3800270	1 X 50	14.0	460.0	540
3800275	1 X 70	16.0	644.0	760
3800280	1 X 95	18.0	874.0	1,020
3800285	1 X 120	20.0	1,104.0	1,270
3800290	1 X 150	22.0	1,380.0	1,560
3800295	1 X 185	24.7	1,702.0	1,930
3800300	1 X 240	27.7	2,208.0	2,510
3800305	1 X 300	30.6	2,760.0	3,120
3800235	2 X 1.5	10.0	28.2	130
3800238	2 X 2.5	10.8	46.0	165
3800241	2 X 4	11.9	73.6	210
3800244	2 X 6	13.1	110.4	270
3800247	2 X 10	14.9	184.0	390
3800251	2 X 16	17.2	294.4	450
3800255	2 X 25	20.5	460.0	820
3800264	2 x 35 (S)	18.8	651.0	880
3800271	2 x 50 (S)	21.0	930.0	1,140
3800276	2 x 70 (S)	24.0	1,302.0	1,560
3800281	2 x 95(S)	26.9	1,767.0	2,130
3800286	2 x 120 (S)	29.9	2,232.0	2,640
3800291	2 x 150 (S)	33.4	2,790.0	3,270
3800296	2 x 185 (S)	37.1	3,441.0	4,040
3800301	2 x 240 (S)	45.0	4,464.0	5,250
3800236	3 x 1.5	10.5	42.3	150
3800239	3 x 2.5	11.4	69.0	195
3800242	3 x 4	12.6	110.4	255
3800245	3 x 6	13.8	165.6	330
3800248	3 x 10	15.8	276.0	490
3800252	3 x 16	18.3	441.6	700
3800257	3 x 25	21.8	690.0	1,000
3800266	3 x 35 (S)	22.0	976.5	1,180
3800272	3 x 50 (S)	24.0	1,395.0	1,600
3800277	3 x 70 (S)	28.0	1,953.0	2,240
3800282	3 x 95 (S)	31.0	2,650.5	3,050
3800287	3 x 120 (S)	35.5	3,348.0	3,800
3800292	3 x 150 (S)	38.5	4,185.0	4,640
3800297	3 x 185 (S)	43.0	5,161.5	5,870
3800302	3 x 240 (S)	48.0	6,696.0	7,670

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3800237	4 x 1.5	11.5	56.4	175
3800240	4 x 2.5	12.5	92.0	225
3800243	4 x 4	13.8	147.2	305
3800246	4 x 6	15.2	220.8	405
3800249	4 x 10	17.5	368.0	600
3800253	4 x 16	20.0	588.8	870
3800260	4 x 25	24.0	920.0	1,325
3800267	3 x 35 +16	24.8	1,113.2	1,450
3800269	4 x 35 (S)	26.5	1,288.0	1,600
3800273	3 x 50 +25	28.5	1,610.0	2,050
3800274	4 x 50 (S)	30.1	1,840.0	2,200
3800278	3 x 70 +35	33.2	2,254.0	2,750
3800279	4 x 70 (S)	35.4	2,576.0	3,050
3800283	3 x 95 +50	37.8	3,082.0	3,750
3800284	4 x 95 (S)	40.2	3,496.0	4,070
3800288	3 x 120 +70	42.6	3,956.0	4,750
3800289	4 x 120 (S)	44.9	4,416.0	5,195
3800293	3 x 150 +70	46.3	4,784.0	5,700
3800294	4 x 150 (S)	49.8	5,520.0	6,350
3800298	3 x 185 +95	52.1	5,980.0	7,705
3800299	4 x 185 (S)	55.8	6,808.0	7,890
3800303	3 x 240 +120	58.6	7,728.0	9,250
3800304	4 x 240 (S)	62.9	8,832.0	10,400
3800308	3 x 300 +150	65.0	9,660.0	11,500
3800309	4 x 300 (S)	69.7	11,040.0	12,810
3804030	5 x 1.5	11.7	70.5	192
3803080	5 x 2.5	12.9	115.0	255
3803081	5 x 4	14.4	184.0	260
3803082	5 x 6	16.0	276.0	475
3804031	5 x 10	18.4	460.0	758
3804032	5 x 16	21.3	736.0	1,135
3804033	5 x 25	26.0	1,150.0	1,742
3804034	5 x 35	29.2	1,610.0	2,355
3804035	7 x 1.5	12.7	98.7	250
3803084	7 G 1.5	12.7	98.7	250
3804036	12 x 1.5	16.2	169.2	375
3803085	12 G 1.5	16.2	169.2	375
3804044	7 x 2.5	14.0	161.0	320
3803088	7 G 2.5	14.0	161.0	320
3804045	12 x 2.5	18.0	276.0	475
3803089	12 G 2.5	18.0	276.0	475

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CE

ÖLFLEX® POWER LV (N)2XYRY

Low voltage power cables

Info

- Low voltage power cable 0.6/1 kV
- Multicore, armoured (SWA) XLPE/PVC/SWA/PVC

Application range

- For main power distribution and lighting circuits in residential, industrial and commercial areas
- Power and control circuit
- Telecom power supply

Product features

- Flame-retardant acc. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Stranded plain annealed copper wires in circular shape conductor
- XLPE core insulation
- PVC inner sheath, black
- Galvanized steel wire armoured
- PVC outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to BS 7671:2004

Conductor stranding
acc. to IEC 60228 Cl. 2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV (N)2XYRY				
3800330	2 X 1.5	13.4	28.2	323
3800331	3 X 1.5	14.0	42.3	356
3800332	4 X 1.5	14.6	56.4	398
3804054	5 X 1.5	15.5	70.5	445
3804062	7 X 1.5	17.1	98.7	607
3804063	12 X 1.5	20.6	169.2	837
3804064	14 X 1.5	21.4	197.4	909
3804065	16 X 1.5	23.0	225.6	1,118
3804066	19 X 1.5	23.9	267.9	1,210
3804067	24 X 1.5	26.8	338.4	1,451
3800333	2 X 2.5	14.3	46.0	374
3800334	3 X 2.5	14.8	69.0	418
3800335	4 X 2.5	15.7	92.0	478
3804055	5 X 2.5	17.4	115.0	627
3804071	7 X 2.5	18.4	161.0	736
3804072	12 X 2.5	23.1	276.0	1,176
3804073	14 X 2.5	24.0	322.0	1,286
3804074	16 X 2.5	25.0	368.0	1,380
3804075	19 X 2.5	26.0	437.0	1525
3804076	24 X 2.5	29.6	552.0	1,860
3800336	2 X 4	15.4	73.6	445
3800337	3 X 4	16.0	110.4	507
3800338	4 X 4	17.7	147.2	679
3804056	5 X 4	18.8	184.0	774
3800339	2 X 6	17.2	110.4	610
3800340	3 X 6	18.0	165.6	710
3800341	4 X 6	19.1	220.8	829
3804057	5 X 6	20.4	276.0	950
3800342	2 X 10	19.1	184.0	775
3800343	3 X 10	20.0	276.0	925
3800344	4 X 10	21.4	368.0	1,093
3804058	5 X 10	23.6	460.0	1,406
3800345	2 X 16	21.2	294.4	980
3800346	3 X 16	23.0	441.6	1,350
3800347	4 X 16	24.7	588.8	1,600
3804059	5 X 16	26.5	736.0	1,867
3800348	2 X 25	25.0	460.0	1,472
3800350	3 X 25	26.7	690.0	1,840

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
3800353	4 X 25	28.9	920.0	2,228
3804060	5 X 25	31.4	1,150.0	2,636
3800356	2 X 35 (S)	27.7	644.0	1,815
3800358	3 X 35 (S)	29.5	966.0	2,290
3800359	3 X 35 +16	30.1	1,113.2	2,521
3800361	4 X 35 (S)	31.0	1288.0	2,817
3804061	5 X 35	35.7	1,610.0	3,626
3800362	2 X 50 (S)	30.8	920.0	2,287
3800363	3 X 50 (S)	32.7	1,380.0	2,958
3800364	3 X 50 +25	34.8	1,610.0	3,560
3800365	4 X 50 (S)	37.0	1,840.0	3,990
3800366	2 X 70 (S)	36.0	1288.0	3,205
3800367	3 X 70 (S)	38.7	1,932.0	4,205
3800368	3 X 70 +35	40.0	2,254.0	4688
3800369	4 X 70 (S)	42.2	2,576.0	5,222
3800370	2 X 95 (S)	40.5	1,748.0	4,040
3800371	3 X 95 (S)	43.0	2,622.0	5,306
3800372	3 X 95 +50	44.7	3,082.0	5,984
3800373	4 X 95 (S)	48.2	3,496.0	7,064
3800374	2 X 120 (S)	44.2	2,208.0	4,850
3800375	3 X 120 (S)	48.2	3,312.0	6830
3800376	3 X 120 +70	51.0	3,956.0	7,869
3800377	4 X 120 (S)	53.1	4,416.0	8,609
3800378	2 X 150 (S)	49.8	2,760.0	6,274
3800379	3 X 150 (S)	53.0	4,140.0	8,262
3800380	3 X 150 +70	54.6	4,784.0	9,172
3800381	4 X 150 (S)	58.2	5,520.0	10,352
3800382	2 X 185 (S)	54.8	3,404.0	7,485
3800383	3 X 185 (S)	58.3	5,106.0	9,904
3800384	3 X 185 +95	60.7	5,980.0	11,204
3800385	4 X 185 (S)	64.6	6,808.0	12,530
3800386	2 X 240 (S)	61.2	4,416.0	9,260
3800387	3 X 240 (S)	65.2	6624.0	12,341
3800388	3 X 240 +120	67.3	7,728.0	13,891
3800389	4 X 240 (S)	71.7	8,832.0	15,668
3800390	2 X 300 (S)	66.8	5,580.0	11,064
3800391	3 X 300 (S)	71.2	8,280.0	14,900
3800392	3 X 300 +150	75.0	9,660.0	17,661
3800393	4 X 300 (S)	80.3	11040.0	19,982

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ÖLFLEX® POWER LV (N)2XYRY SC

Low voltage power cables

Info

- Low voltage power cable 0.6/1 kV
- Single core, Armoured (AWA)XLPE/PVC/AWA/PVC

Application range

- For main power distribution and lighting circuits in residential, industrial and commercial areas
- Power and control circuit
- Telecom power supply
- Suitable for direct burial installations as well as in air or ducts

Product features

- Flame-retardant acc. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Norm references / Approvals

- Based on IEC 60502-1

Product Make-up

- Stranded plain annealed copper wires in circular shape conductor
- XLPE core insulation
- PVC outer sheath, black
- PVC inner sheath, black
- Aluminium wire armoured

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Conductor stranding
acc. to IEC 60228 Cl.2

Minimum bending radius
10 x cable diameter

Nominal voltage
U_0/U: 600/1000 V

Temperature range
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER LV (N)2XYRY SC				
3800315	1 X 25	15.8	225.0	645
3800316	1 X 35	17.5	315.0	888
3800317	1 X 50	19.0	450.0	1,107
3800318	1 X 70	21.0	630.0	1,418
3800319	1 X 95	23.6	855.0	1,913
3800320	1 X 120	25.4	1,080.0	2,275
3800321	1 X 150	27.3	1,350.0	2,718
3800322	1 X 185	29.8	1,665.0	3,245
3800323	1 X 240	32.8	2,160.0	4,021
3800324	1 X 300	36.8	2,760.0	5,141
3800325	1 X 400	40.0	3,600.0	6,474
3800326	1 X 500	44.1	4,500.0	7,872
3800327	1 X 630	50.2	5,670.0	10,177
3800328	1 X 800	55.3	7,200.0	12,494
3800329	1 X 1000	61.0	9,000.0	15,268

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ÖLFLEX® FLAT TPS

Flat thermoplastic sheathed cable

Info

- Rated voltage U0 /U: 450/750 V

Benefits

- Easy tear PVC sheath to save time when stripping
- Available in 100m and 200m plastic reels

Application range

- Mechanically light duty cable, recommended for residential and light commercial power distribution requirements
- Fixed wiring installation for power circuits in domestic, industrial and commercial situations
- White sheathed commonly used for mains, blue for air-conditioning units, yellow for switching applications

Product features

- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- Based on AS/NZS 5000.2

Product Make-up

- Bare copper wires
- PVC core insulation
- PVC outer sheath
- Colours: White, blue or yellow

Technical data

Conductor stranding
1mm² phase core – Solid bare copper, Class 1
All other cores – Stranded bare copper, Class 2
In accordance to AS/NZS 1125

Minimum bending radius
12 x cable diameter

Rated voltage
U_0/U: 450/750 V

Test voltage
1.8 kV

Temperature range
Fixed installation: -15°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® FLAT TPS					
8100701	2X1+1G1	8.9 × 4.3	White	28.8	70
8100702	2X1.5+1G1.5	9.8 × 4.5	White	43.2	87
8100703	2X2.5+1G2.5	12.2 × 5.4	White	72.0	136
8100704	2X4+1G2.5	13.9 × 6.4	White	100.8	190
8100705	2X6+1G2.5	14.9 × 6.9	White	139.2	235
8100706	2X10+1G4	18.5 × 8.4	White	230.4	370
8100707	2X16+1G6	21.3 × 9.6	White	364.8	530
8100708	3X1+1G1	11.1 × 4.2	White	38.4	88
8100709	3X1.5+1G1.5	12.4 × 4.4	White	57.6	109
8100710	3X2.5+1G2.5	15.4 × 5.3	White	96.0	175
8100711	3X4+1G2.5	17.9 × 6.3	White	139.2	247
8100712	3X6+1G2.5	19.5 × 6.8	White	196.8	314
8100713	3X10+1G4	24.4 × 8.3	White	326.4	500
8100714	3X16+1G6	28.2 × 9.5	White	518.4	722
8100719	3X1.5+1G1.5	12.4 × 4.4	Blue	57.6	109
8100715	3X1	8.9 × 4.3	Yellow	28.8	70
8100716	3X1.5	9.8 × 4.5	Yellow	43.2	87
8100717	3X2.5	12.2 × 5.4	Yellow	72.0	136
8100718	3 X 4	14.0 × 6.5	Yellow	115.2	187

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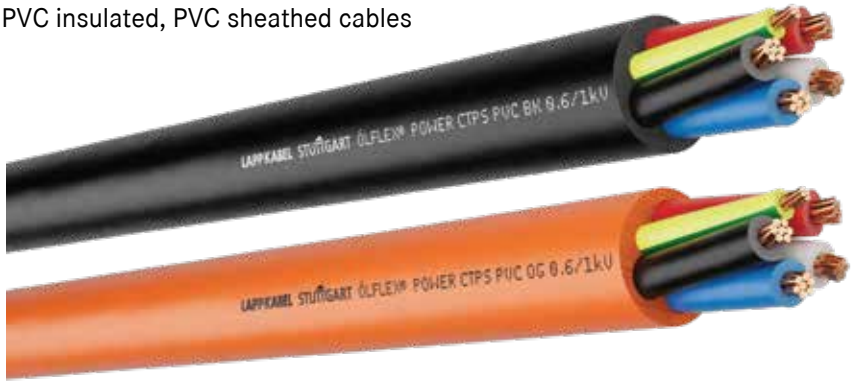
ÖLFLEX® POWER CTPS PVC

PVC insulated, PVC sheathed cables



Info

- Multicore power cable
- Based on AS/NZ Standard

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to AS/NZS 5000.1

Conductor stranding
Stranded wire acc. to AS/NSZ 1125 Cl. 2

Minimum bending radius
Fixed installation: 4 x cable diameter

Nominal voltage
Reduced Earth:
450/750V (≤ 6mm2)
600/1000V (≥ 10mm2)
Full Earth: 600/1000V

Temperature range
Fixed installation: -20°C to +90°C

Benefits

- Wide range of application opportunities

Application range

- For fixed installation in power and lighting circuits in commercial buildings
- Plant engineering and construction, industrial machinery, power station
- Suitable for outdoor used under direct sunlight

Product features

- Flame retardant acc. to AS/NZS 1660.5.6 resp. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Product Make-up

- Stranded plain annealed copper wire
- PVC (V-90) core insulation
- PVC (5V-90) outer sheath, orange
- Also available in black outer sheath

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER CTPS PVC - 450/750V					
3801816	2x1.5+E	8.4	orange	43.2	105
3803840	2x1.5+E	8.4	black	43.2	105
3801831	3x1.5+E	9.3	orange	57.6	130
3803852	3x1.5+E	9.3	black	57.6	130
3801851	4x1.5+E	10.1	orange	72.0	155
3803864	4x1.5+E	10.1	black	72.0	155
3801817	2x2.5+E	10.1	orange	72.0	153
3803841	2x2.5+E	10.1	black	72.0	153
3801832	3x2.5+E	10.9	orange	96.0	192
3803853	3x2.5+E	10.9	black	96.0	192
3801852	4x2.5+E	11.9	orange	120.0	238
3803865	4x2.5+E	11.9	black	120.0	238
3801818	2x4+2.5E	11.1	orange	100.8	199
3803842	2x4+2.5E	11.1	black	100.8	199
3801833	3x4+2.5E	12.3	orange	139.2	266
3803854	3x4+2.5E	12.3	black	139.2	266
3801853	4x4+2.5E	13.7	orange	177.6	328
3803866	4x4+2.5E	13.7	black	177.6	328
3801819	2x6+2.5E	12.0	orange	139.2	258
3803843	2x6+2.5E	12.0	black	139.2	258
3801834	3x6+2.5E	13.6	orange	196.8	345
3803855	3x6+2.5E	13.6	black	196.8	345
3801854	4x6+2.5E	15.1	orange	254.4	440
3803867	4x6+2.5E	15.1	black	254.4	440
ÖLFLEX® POWER CTPS PVC - 600/1000V, Full Earth					
3801960	2x1.5+E	10.5	orange	43.2	142
3803902	2x1.5+E	10.5	black	43.2	142
3801964	3x1.5+E	11.3	orange	57.6	172
3803906	3x1.5+E	11.3	black	57.6	172
3801968	4x1.5+E	12.2	orange	72.0	203
3803910	4x1.5+E	12.2	black	72.0	203
3801961	2x2.5+E	11.4	orange	72.0	187
3803903	2x2.5+E	11.4	black	72.0	187
3801965	3x2.5+E	12.4	orange	96.0	231
3803907	3x2.5+E	12.4	black	96.0	231
3801969	4x2.5+E	13.5	orange	120.0	276
3803911	4x2.5+E	13.5	black	120.0	276

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER CTPS PVC - 600/1000V, Reduced Earth					
3801962	2x4+2.5E	12.9	orange	100.8	243
3803904	2x4+2.5E	12.9	black	100.8	243
3801963	2x6+2.5E	13.7	orange	139.2	301
3803905	2x6+2.5E	13.7	black	139.2	301
3801820	2x10+4E	15.4	orange	230.4	431
3803844	2x10+4E	15.4	black	230.4	431
3801821	2x16+6E	17.4	orange	364.8	616
3803845	2x16+6E	17.4	black	364.8	616
3801822	2x25+6E	20.3	orange	537.6	868
3803846	2x25+6E	20.3	black	537.6	868
3801823	2x35+10E	22.6	orange	768.0	1,183
3803847	2x35+10E	22.6	black	768.0	1,183
3801824	2x50+16E	25.7	orange	1,113.6	1,647
3803848	2x50+16E	25.7	black	1,113.6	1,647
3801966	3x4+2.5E	14.2	orange	139.2	313
3803908	3x4+2.5E	14.2	black	139.2	313
3801967	3x6+2.5E	15.3	orange	196.8	397
3803909	3x6+2.5E	15.3	black	196.8	397
3801835	3x10+4E	17.3	orange	326.4	578
3803856	3x10+4E	17.3	black	326.4	578
3801836	3x16+6E	19.8	orange	518.4	838
3803857	3x16+6E	19.8	black	518.4	838
3801837	3x25+6E	22.7	orange	777.6	1,211
3803858	3x25+6E	22.7	black	777.6	1,211
3801838	3x35+10E	25.6	orange	1,104.0	1,648
3803859	3x35+10E	25.6	black	1,104.0	1,648
3801839	3x50+16E	29.5	orange	1,593.6	2,314
3803860	3x50+16E	29.5	black	1,593.6	2,314
3801855	4x10+4E	19.1	orange	422.4	726
3803868	4x10+4E	19.1	black	422.4	726
3801856	4x16+6E	21.7	orange	672.0	1,061
3803869	4x16+6E	21.7	black	672.0	1,061
3801857	4x25+6E	26.1	orange	1,017.6	1,581
3803870	4x25+6E	26.1	black	1,017.6	1,581
3801858	4x35+10E	28.7	orange	1,440.0	2,114
3803871	4x35+10E	28.7	black	1,440.0	2,114
3801859	4x50+16E	33.3	orange	2,073.6	2,983
3803872	4x50+16E	33.3	black	2,073.6	2,983

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NEW

ÖLFLEX® POWER CTPS XLPE BK

XLPE insulated, PVC sheathed cables

Info

- Multicore power cable
- Based on AS/NZ Standard

Benefits

- Wide range of application opportunities

Application range

- For fixed installation in power and lighting circuits in commercial buildings
- Plant engineering and construction, industrial machinery, power station
- Suitable for outdoor used under direct sunlight

Product features

- Flame retardant acc. to AS/NZS 1660.5.6 resp. to IEC 60332-1-2
- UV-resistant outer sheath for outdoor application

Product Make-up

- Stranded plain annealed copper wire
- XLPE (X-90) core insulation
- PVC (5V-90) outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Low voltage power cable
ETIM 5.0 Class-ID: EC000057

Core identification code
acc. to AS/NZS 5000.1

Conductor stranding
Stranded wire acc. to AS/NSZ 1125 Cl. 2

Minimum bending radius
Fixed installation: 20 x cable diameter

Nominal voltage
U_0/U: 600/1000V

Temperature range
Fixed installation: -20°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® POWER CTPS XLPE BK 0.6/1kV				
3803844B	2x10+4E	15.5	230.4	363
3803845B	2x16+6E	17.7	364.8	508
3803846B	2x25+6E	21.3	537.6	715
3803847B	2x35+10E	23.7	768.0	949
3803856B	3x10+4E	17.0	326.4	485
3803857B	3x16+6E	19.6	518.4	693
3803868B	4x10+4E	18.7	422.4	571
3803869B	4x16+6E	21.5	672.0	825
3803870B	4x25+6E	26.1	1,017.0	1,204
3803871B	4x35+10E	29.1	1,440.0	1,615
3803872B	4x50+16E	33.6	2,073.0	2,180
3803873B	4x70+25E	39.1	2,928.0	3,092
3803874B	4x95+25E	44.3	3,888.0	4,101

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ÖLFLEX® POWER NS

Neutral Wire Screened Cable

Info

- Rated voltage U_0 /U: 0.6/1 kV

Benefits

- Neutral screen provide protection against the hazards of electrical shock
- 3.2mm sheath suitable for direct burial

Application range

- For use in various situations to supply main power from point of supply to buildings, equipment, shed
- Switch board to main control cabinet, main between floors and buildings, cable cabinet to motor

Product features

- Flame retardant according to IEC 60332-1-2

Norm references / Approvals

- Based on AS/NZS 4961

Product Make-up

- Stranded plain annealed copper wires
- PVC core insulation
- Neutral screen made of plain annealed copper wire
- PVC outer sheath
- Colour : black

Technical data

Conductor stranding
Stranded wire acc. to AS/NSZ 1125 Cl. 2

Minimum bending radius
12 x cable diameter

Rated voltage
0.6/1 kV

Test voltage
3.5 kV

Temperature range
Up to 75°C

Article number	Number of cores and mm² perconductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
2-conductor Neutral Screen Cable (Single Core)				
8100661	1 X 2.5	8.6	51.0	127
8100662	1 X 4	9.5	72.1	165
8100663	1 X 8	10.2	107.2	210
8100664	1 X 10	11.9	180.2	303
8100664	1 X 16	13.3	286.1	429
2-conductor Neutral Screen Cable (Single Core) - For Direct Burial (≥ 3.2mm sheath)				
8100666	1 X 2.5	11.5	51.0	198
8100667	1 X 4	12.4	72.1	242
8100668	1 X 8	13.1	107.2	292
8100669	1 X 10	14.8	180.2	397
8100670	1 X 16	16.2	286.1	533
3-conductor Neutral Screen Flat Cable (2-cores)				
8100671	2 X 2.5	12.5 x 8.6	78.5	198
8100672	2 X 4	14.5 x 9.5	114.1	263
8100673	2 X 8	15.8 x 10.2	162.0	328
8100674	2 X 10	18.0 x 11.5	267.6	465
8100675	2 X 16	20.6 x 13.0	425.3	657
3-conductor Neutral Screen Flat Cable (2-cores) - For Direct Burial (≥ 3.2mm sheath)				
8100676	2 X 2.5	15.5 x 11.5	78.5	290
8100677	2 X 4	17.4 x 12.4	114.1	366
8100678	2 X 8	18.7 x 13.1	162.0	439
8100679	2 X 10	21.0 x 14.4	267.6	591
8100680	2 X 16	23.5 x 15.8	425.3	799
4-conductor Neutral Screen Cable (3-cores)				
8100681	3 X 2.5	12.8	111.1	254
8100682	3 X 4	14.9	162.7	347
8100683	3 X 8	16.3	229.9	437
8100684	3 X 10	18.7	379.0	623
8100685	3 X 16	21.0	567.5	851
4-conductor Neutral Screen Cable (3-cores) - For Direct Burial (≥ 3.2mm sheath)				
8100686	3 X 2.5	15.7	111.1	354
8100687	3 X 4	17.8	162.7	461
8100688	3 X 8	19.2	229.9	561
8100689	3 X 10	21.5	379.0	765
8100690	3 X 16	23.8	567.5	1,009
5-conductor Neutral Screen Cable (4-cores)				
8100691	4 X 2.5	13.8	138.7	303
8100692	4 X 4	16.2	213.5	429
8100693	4 X 8	18.6	298.6	574
8100694	4 X 10	20.3	480.8	768
8100695	4 X 16	22.8	712.0	1,047
5-conductor Neutral Screen Cable (4-cores) - For Direct Burial (≥ 3.2mm sheath)				
8100696	4 X 2.5	16.7	138.7	410
8100697	4 X 4	19.1	213.5	554
8100698	4 X 8	21.5	298.6	715
8100699	4 X 10	23.1	480.8	920
8100700	4 X 16	25.7	712.0	1,218

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ÖLFLEX® TRAIN 3GKW SC

Info

- Meets EN 50264-3-1 type M
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type M
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour : Grey , Black or Green-yellow

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 0.6 / 1.0 kV, Um AC 1.2kV, Vo DC 0.9kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

Article number	Number of cores and mm² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAIN 3GKW SC				
85163003	1 X 1.0	2.5	9.6	14
85163004	1 X 1.5	3.0	14.4	20
85163005	1 X 2.5	3.4	24.0	30

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ÖLFLEX® TRAIN 4GKW

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- High flexibility and slim diameters enable small bending radii at fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Outer Insulation : Electron beam cross-linked polyolefin copolymer
- Outer Insulation colour : Black or green-yellow

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 1.8 / 3.0 kV, Um AC 3.6kV, Vo DC 2.7kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Colour	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® TRAIN 4GKW					
85165001	1 X 1.5	3.6	black	14.4	25
85165002	1 X 2.5	4.0	black	24.0	35
85165003	1 X 4	4.6	black	38.4	50
85165004	1 X 6	5.3	black	57.6	71
85165005	1 X 10	6.5	black	96.0	117
85165006	1 X 16	8.5	black	153.6	193
85165007	1 X 25	10.3	black	240.0	290
85165008	1 X 35	11.9	black	336.0	401
85165009	1 X 50	14.3	black	480.0	572
85165010	1 X 70	16.2	black	672.0	771
85165011	1 X 95	18.1	black	912.0	1,011

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

ÖLFLEX® TRAIN GKW SC

Info

- Meets EN 50306-2 type M
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50306-2, type M
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, special round conductor
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour : Grey , Black or Green-yellow

Technical data

Conductor stranding
Fine wired acc. to EN 50306-2 (SRC=Special Round Conductor)

Minimum bending radius
Fixed installation : 4 x OD, 3 x OD for careful bending, once at connecting terminal

Nominal voltage
U0/U AC 300 / 500 V, Um AC 600V, Vo DC 450V

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN GKW MC

Info

- Meets EN 50306-4 class P, type MM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50306-4, type MM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, special round conductor
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour of insulation : black with white numbers
- Outer sheath : Electron beam cross-linked polyolefin copolymer
- Outer sheath colour : Black

Technical data

Conductor stranding
Fine wired acc. to EN 50306-2 (SRC=Special Round Conductor)

Minimum bending radius
Fixed installation : 4 x OD, 3 x OD for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 300 / 500 V, Um AC 600V, Vo DC 450V

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX®TRAIN GKW IS MP

Info

- Meets EN 50306-4 class P, type MM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50306-4, type MM
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, special round conductor
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour of insulation : black with white numbers
- Individual shield : Tinned copper braid
- Inner sheath : Electron beam cross-linked polyolefin copolymer, Black colour
- Outer sheath : Electron beam cross-linked polyolefin copolymer, Black colour

Technical data

Conductor stranding
Fine wired acc. to EN 50306-2 (SRC=Special Round Conductor)

Minimum bending radius
Fixed installation : 6 x OD, 5 x OD for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 300 / 500 V, Um AC 600V, Vo DC 450V

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN GKW C MC

Info

- Meets EN 50306-4 class P, type MM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50306-4, type MM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, special round conductor
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour of insulation : black with white numbers
- Braiding : Tinned copper braid
- Outer sheath : Electron beam cross-linked polyolefin copolymer, Black colour

Technical data

Conductor stranding
Fine wired acc. to EN 50306-2 (SRC=Special Round Conductor)

Minimum bending radius
Fixed installation : 4 x OD, 3 x OD for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 300 / 500 V, Um AC 600V, Vo DC 450V

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 3GKW MC

Info

- Meets EN 50264-3-2, type MM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- Easy to strip and to dismantle
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- Suitable for the connection of fixed and moving objects such as lamps, heating, electrical equipment, wiring of vehicles, terminal boxes and power supply

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-2, type MM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Insulation : Electron beam cross-linked polyolefin copolymer
- Colour of insulation : black with white numbers
- Outer sheath : Electron beam cross-linked polyolefin copolymer, Black colour

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 0.6 / 1.0 kV, Um AC 1.2kV, Vo DC 0.9kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 4GKW C

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- High flexibility and slim diameters enable small bending radii at fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Braiding : Tinned copper braid
- Outer sheath : Electron beam cross-linked polyolefin copolymer, Black colour

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 1.8 / 3.0 kV, Um AC 3.6kV, Vo DC 2.7kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 4GKW HF

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- More improved high flexibility than 4GKW and slim diameters enable small bending radii at fixed installation
- Easy to strip and to dismantle & Expanded temperature range
- Resistant to mechanical influences in harsh environmental conditions
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks
- For carrying energy between cars

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, Super fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Outer Insulation : Electron beam cross-linked polyolefin copolymer
- Outer Insulation colour : Black or green-yellow

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 6

Minimum bending radius
Fixed installation : 4 x OD, 3 x OD for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 1.8 / 3.0 kV, Um AC 3.6kV, Vo DC 2.7kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 9GKW

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- High flexibility and slim diameters enable small bending radii at fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Outer Insulation : Electron beam cross-linked polyolefin copolymer
- Outer Insulation colour : Black or green-yellow

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 3.6 / 6.0 kV, Um AC 7.2kV, Vo DC 5.4kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 9GKW C

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- High flexibility and slim diameters enable small bending radii at fixed installation
- Resistant to mechanical influences in harsh environmental conditions
- Expanded temperature range
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- EN 45545-2 HL1, HL2, HL3
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Braiding : Tinned copper braid
- Outer sheath : Electron beam cross-linked polyolefin copolymer, Black colour

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 : 4 x OD / 3 x OD*, > 12 : 5 x OD / 4 x OD*, * for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 3.6 / 6.0 kV, Um AC 7.2kV, Vo DC 5.4kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

ÖLFLEX® TRAIN 9GKW HF

Info

- Meets EN 50264-3-1 type OM
- High temperature resistance : -40°C up to +125°C
- Highly oil- and fuel-resistant

Benefits

- More improved high flexibility than 4GKW and slim diameters enable small bending radii at fixed installation
- Easy to strip and to dismantle & Expanded temperature range
- Resistant to mechanical influences in harsh environmental conditions
- Excellent chemical resistance and high Flammability rating as well
- Reduced formation of toxic gases and fire spreading in the event of fire increase the protection against damage to persons and property

Application range

- For fixed and protected installations inside or outside of railed vehicles and buses
- For connection of stationary and moving parts
- Suitable for cabling of switchboards, converters, panel units and rheostatic braking blocks
- For carrying energy between cars

Product features

- Halogen-free (IEC 60754-1) & No corrosive gases (IEC 60754-2)
- No toxic gases (EN 50305, BS 6853)
- Low smoke density (IEC 61034-2)
- Flame retardant (IEC 60332-1-2)
- No fire spreading (EN 50305, BS6853)

Norm references / Approvals

- EN 50264-3-1, type OM
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- BS 6853 (Interior use Ia, Ib, & Exterior use Ia, Ib,)
- Compliant with NFPA 130

Product Make-up

- Conductor : Tinned copper strand, Super fine wired
- Inner Insulation : Electron beam cross-linked polyolefin copolymer, Natural colour
- Outer Insulation : Electron beam cross-linked polyolefin copolymer
- Outer Insulation colour : Black or green-yellow

Technical data

Conductor stranding
Fine wired acc. to IEC 60228 class 6

Minimum bending radius
Fixed installation : 4 x OD, 3 x OD for careful bending, once at connecting terminal

Nominal voltage
U_0/U AC 1.8 / 3.0 kV, Um AC 3.6kV, Vo DC 2.7kV

Temperature range
Fixed installation : -40°C up to +125°C max.
Occasional flexing : -35°C up to + 90°C max.

2

UNITRONIC®

Data communication systems

Our high-quality UNITRONIC® data network cables and field bus components provide a forward-looking solution for all applications in industrial machinery and plant engineering. From transmission of simple control signals to field bus signals in complex network structures – we offer a dependable cabling and connection solution for almost every situation.

Application range

- Industrial machinery and plant engineering
- Sensors and actuating elements
- Appliances
- Measurement and control technology
- Automated production processes and industrial robots
- Bus systems
- Computing and communication systems

Low frequency data transmission

Sensor/Actuator

Coaxial

Bus Systems

UNITRONIC® CLEANROOM FD 8113 C MC

Info

- Flexible cable for power chain use
- Cable for Cleanroom use

Benefits

- Fire retardant in according to IEC 60332-1-2
- Low particle emission
- IPA Class 1
- Low electrical interference by overall braiding

Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- IPA Class 1 in according to ISO 14644-1
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Specially formulated PVC
- Shield: Tinned-copper braiding
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

Technical data

Core identification code
DIN 47100, refer to Appendix T9

Conductor stranding
Extra-fine wire strands of bare copper

Mutual Capacitance
C/C : approx. 110 nF/km

Maximum operating voltage
0.14 mm² : 500 V
(Not for power application)
0.25 mm² and 0.34 mm² : 900V
(Not for power application)

Inductivity
approx. 0.75 mH/km

Minimum bending radius
Flexing : 7.5 x Outer diameter
Fixed installation : 4 x Outer diameter

Test voltage
0.14 mm² : 1,200 V
0.25 mm² and 0.34 mm² : 2,500V

Temperature range
Flexing : 0°C to +70°C
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® CLEANROOM FD 8113 C MC				
85132202	2 x 0.14	4.9	10.6	30
85132201	3 x 0.14	5.3	12.4	35
85132203	4 x 0.14	5.7	17.1	43
85132204	5 x 0.14	6.1	19.0	48
85132205	6 x 0.14	6.4	22.5	55
85132206	7 x 0.14	6.8	24.0	60
85132207	8 x 0.14	7.2	27.5	67
85132208	9 x 0.14	7.5	29.0	73
85132209	10 x 0.14	7.9	32.8	81
85132210	14 x 0.14	7.9	35.6	84
85132211	18 x 0.14	8.6	43.5	101
85132251	2 x 0.25	5.4	15.5	38
85132252	3 x 0.25	5.9	18.1	44
85132253	4 x 0.25	6.3	21.2	51
85132254	5 x 0.25	6.7	25.9	60
85132255	6 x 0.25	7.1	28.5	67
85132256	7 x 0.25	7.5	33.2	76
85132257	8 x 0.25	8.0	35.8	83
85132258	9 x 0.25	8.4	41.0	93
85132259	10 x 0.25	8.8	43.6	102
85132260	14 x 0.25	8.8	53.6	108
85132261	18 x 0.25	9.6	65.9	132
85132301	2 x 0.34	5.9	18.2	44
85132302	3 x 0.34	6.4	24.2	54
85132303	4 x 0.34	6.9	27.9	63
85132304	5 x 0.34	7.4	33.6	73
85132305	6 x 0.34	7.9	39.3	85
85132306	7 x 0.34	8.4	42.6	94
85132307	8 x 0.34	8.9	45.9	104
85132308	9 x 0.34	9.4	55.1	119
85132309	10 x 0.34	9.9	58.4	130
85132310	14 x 0.34	9.9	71.7	139
85132311	18 x 0.34	10.9	89.4	171

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

UNITRONIC® CLEANROOM FD 8113 MC

Info

- Flexible cable for power chain use
- Cable for Cleanroom use

Benefits

- Fire retardant in according to IEC 60332-1-2
- Low particle emission
- IPA Class 1

Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- IPA Class 1 in according to ISO 14644-1
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

Product Make-up

- Conductor: Extra-Fine wire strands of bare copper
- Core: Specially formulated PVC
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

Technical data

Core identification code
DIN 47100, refer to Appendix T9

Conductor stranding
Extra-fine wire strands of bare copper

Mutual Capacitance
C/C : approx. 110 nF/km

Maximum operating voltage
0.14 mm² : 500 V
(Not for power application)
0.25 mm² and 0.34 mm² : 900V
(Not for power application)

Inductivity
approx. 0.75 mH/km

Minimum bending radius
Flexing : 5 x Outer diameter
Fixed installation : 3 x Outer diameter

Test voltage
0.14 mm² : 1,200 V
0.25 mm² and 0.34 mm² : 2,500V

Temperature range
Flexing : 0°C to +70°C
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® CLEANROOM FD 8113 MC				
85132002	2 x 0.14	4.4	2.8	23
85132001	3 x 0.14	4.8	4.2	27
85132003	4 x 0.14	5.1	5.6	31
85132004	5 x 0.14	5.5	7.0	36
85132005	6 x 0.14	5.8	8.4	41
85132006	7 x 0.14	6.2	9.8	46
85132007	8 x 0.14	6.5	11.2	52
85132008	9 x 0.14	6.9	12.6	57
85132009	10 x 0.14	7.2	14.0	63
85132010	14 x 0.14	7.2	19.6	56
85132011	18 x 0.14	7.9	25.2	71
85132051	2 x 0.25	4.8	5.0	29
85132052	3 x 0.25	5.2	7.5	34
85132053	4 x 0.25	5.6	10.0	40
85132054	5 x 0.25	6.1	12.5	47
85132055	6 x 0.25	6.5	15.0	54
85132056	7 x 0.25	6.9	17.5	61
85132057	8 x 0.25	7.3	20.0	69
85132058	9 x 0.25	7.7	22.5	77
85132059	10 x 0.25	8.2	25.0	85
85132060	14 x 0.25	8.2	35.0	92
85132061	18 x 0.25	9.0	45.0	114
85132101	2 x 0.34	5.3	6.8	35
85132102	3 x 0.34	5.8	10.2	42
85132103	4 x 0.34	6.3	13.6	50
85132104	5 x 0.34	6.8	17.0	59
85132105	6 x 0.34	7.3	20.4	68
85132106	7 x 0.34	7.8	23.8	78
85132107	8 x 0.34	8.3	27.2	88
85132108	9 x 0.34	8.8	30.6	99
85132109	10 x 0.34	9.3	34.0	109
85132110	14 x 0.34	9.3	47.6	119
85132111	18 x 0.34	10.3	61.2	149

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UNITRONIC® CLEANROOM FD 8211 C MC

Info

- Flexible cable for power chain use
- Cable for Cleanroom use

Benefits

- Fire retardant in according to IEC 60332-1-2
- Low particle emission
- IPA Class 1
- Low outgassing emission VOC/SVOC

Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- IPA Class 1 in according to ISO 14644-1
- VOC/SVOC in according to ISO 14644-1 5
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Special PE
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

Technical data

Core identification code
DIN 47100, refer to Appendix T9

Conductor stranding
Fine wire strands of bare copper in accoring with IEC 60228, VDE 0295, class 5

Maximum operating voltage
0.14 mm² : 500 V
(Not for power application)
0.25 mm² and 0.34 mm² : 900V
(Not for power application)

Minimum bending radius
Flexing : 5 x Outer diameter
Fixed installation : 3 x Outer diameter

Test voltage
0.14 mm² : 1,200 V
0.25 mm² and 0.34 mm² : 2,500V

Temperature range
Flexing : 0°C to +70°C
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® CLEANROOM FD 8211 C MC				
85132601	2 x 0.14	5.0	10.7	29
85132602	3 x 0.14	5.3	12.1	33
85132603	4 x 0.14	5.8	16.8	41
85132604	5 x 0.14	6.1	18.6	45
85132605	6 x 0.14	6.5	22.1	52
85132606	7 x 0.14	6.8	23.5	56
85132607	8 x 0.14	7.2	27.0	63
85132608	9 x 0.14	7.5	28.4	68
85132609	10 x 0.14	7.9	31.9	74
85132610	14 x 0.14	7.9	39.7	79
85132611	18 x 0.14	8.6	45.8	95
85132612	2 x 0.25	5.5	15.5	38
85132613	3 x 0.25	5.9	18.1	45
85132614	4 x 0.25	6.3	21.3	52
85132615	5 x 0.25	6.7	26.0	60
85132616	6 x 0.25	7.1	28.5	67
85132617	7 x 0.25	7.6	33.2	76
85132618	8 x 0.25	8.0	36.3	84
85132619	9 x 0.25	8.4	41.1	94
85132620	10 x 0.25	8.8	43.7	102
85132621	14 x 0.25	8.8	55.7	110
85132622	18 x 0.25	9.7	65.9	134
85132623	2 x 0.34	5.9	18.3	44
85132624	3 x 0.34	6.4	24.3	55
85132625	4 x 0.34	6.9	28.0	63
85132626	5 x 0.34	7.4	33.6	74
85132627	6 x 0.34	7.9	39.3	85
85132628	7 x 0.34	8.4	42.6	95
85132629	8 x 0.34	8.9	46.0	105
85132630	9 x 0.34	9.4	55.1	121
85132631	10 x 0.34	9.9	58.5	131
85132632	14 x 0.34	9.9	71.7	141
85132633	18 x 0.34	10.9	89.4	173

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UNITRONIC® CLEANROOM FD 8211 CY TP

Info

- Flexible twisted pair cable for power chain use
- Cable for Cleanroom use

Benefits

- Fire retardant in according to IEC 60332-1-2
- Low particle emission
- IPA Class 1
- Low outgassing emission VOC/SVOC

Application range

- Cleanroom application
- Assembly lines, production lines, in all kinds of machines
- Suitable for use in measuring, control and regulation circuits.

Product features

- Flame-retardant according IEC 60332-1-2

Norm references / Approvals

- IPA Class 1 in according to ISO 14644-1
- VOC/SVOC in according to ISO 14644-1 5
- For travel distance up to 10 m
- For use in power chains (refer to Appendix T3)

Product Make-up

- Conductor: Fine wire strands of bare copper
- Core: Special PE
- Outer sheath: Specially formulated PVC
- Outer sheath colour: Black

Technical data

Core identification code
DIN 47100, refer to Appendix T9

Conductor stranding
Fine wire strands of bare copper in accoring with IEC 60228, VDE 0295, class 5

Maximum operating voltage
0.14 mm² : 500 V
(Not for power application)
0.25 mm² and 0.34 mm² : 900V
(Not for power application)

Minimum bending radius
Flexing : 5 x Outer diameter
Fixed installation : 3 x Outer diameter

Test voltage
0.14 mm² : 1,200 V
0.25 mm² and 0.34 mm² : 2,500V

Temperature range
Flexing : 0°C to +70°C
Fixed installation : - 40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter Average (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® CLEANROOM FD 8211 CY TP				
85133001	2 x 2 x 0.14	6.6	19.6	49
85133002	3 x 2 x 0.14	7.3	24.9	59
85133003	4 x 2 x 0.14	7.3	26.5	62
85133004	5 x 2 x 0.14	7.8	31.7	72
85133005	6 x 2 x 0.14	8.4	36.3	83
85133006	7 x 2 x 0.14	8.9	40.0	93
85133007	8 x 2 x 0.14	9.5	44.2	104
85133008	9 x 2 x 0.14	10.0	50.6	117
85133009	10 x 2 x 0.14	10.6	53.3	128
85133010	11 x 2 x 0.14	11.1	60.1	143
85133011	12 x 2 x 0.14	10.0	59.0	119
85133012	14 x 2 x 0.14	10.6	64.5	132
85133013	16 x 2 x 0.14	11.1	74.1	148
85133014	18 x 2 x 0.14	11.7	79.7	161
85133015	2 x 2 x 0.25	7.5	26.8	61
85133016	3 x 2 x 0.25	8.3	32.9	74
85133017	4 x 2 x 0.25	8.3	39.4	82
85133018	5 x 2 x 0.25	9.0	45.0	95
85133019	6 x 2 x 0.25	9.7	52.5	110
85133020	7 x 2 x 0.25	10.4	59.6	126
85133021	8 x 2 x 0.25	11.0	65.9	141
85133022	9 x 2 x 0.25	11.7	74.7	160
85133023	10 x 2 x 0.25	12.4	79.8	176
85133024	11 x 2 x 0.25	13.1	88.2	195
85133025	12 x 2 x 0.25	11.7	89.7	164
85133026	14 x 2 x 0.25	12.4	99.8	183
85133027	16 x 2 x 0.25	13.2	120.2	212
85133028	18 x 2 x 0.25	13.9	130.3	233
85133029	2 x 2 x 0.34	8.1	32.8	70
85133030	3 x 2 x 0.34	9.0	41.0	86
85133031	4 x 2 x 0.34	9.0	48.0	95
85133032	5 x 2 x 0.34	9.8	57.2	112
85133033	6 x 2 x 0.34	10.5	67.7	132
85133034	7 x 2 x 0.34	11.3	78.1	152
85133035	8 x 2 x 0.34	12.1	85.4	170
85133036	9 x 2 x 0.34	12.8	96.3	193
85133037	10 x 2 x 0.34	13.6	103.5	213
85133038	11 x 2 x 0.34	14.5	122.3	245
85133039	12 x 2 x 0.34	12.8	117.3	199
85133040	14 x 2 x 0.34	13.7	143.0	234
85133041	16 x 2 x 0.34	14.5	157.3	259
85133042	18 x 2 x 0.34	15.3	171.0	284

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UNITRONIC® LiYY ALARM

Info

- Unshielded

Application range

- Flexible cables normally used for the wiring of burglar and security alarm and other low voltage circuits
- Suitable for interconnection between control unit systems, sensors and alerting devices
- For indoor installation

Product features

- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Stranded bare annealed copper wires
- PVC core insulation
- PVC outer sheath, white

Technical data

Classification
ETIM 5.0 Class-Description: Signal-/ telecommunication cable
ETIM 5.0 Class-ID: EC000829

Core identification code
4 core: RD/BK/WH/BU
6 core : RD/BK/WH/BU/YE/GN

Mutual capacitance
Approx. 120 nF/km, at 800Hz

Peak operating voltage
50 Vrms (not for power applications)

Minimum bending radius
10 x cable diameter

Temperature range
-30°C to +70°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LiYY ALARM				
3804934	4 X 0.25	4.3	9.6	28
3804936	6 X 0.25	5.1	14.2	39

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UNITRONIC® LiY(ST)Y

Info

- UL Style 2464
- UL-approved

Application range

- Suitable for use in data transmission for control measurement
- For use in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- UL - approved
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned annealed copper
- Semi-Rigid PVC core insulation
- Aluminium foil screening
- Tinned copper drain wire
- PVC outer sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
acc. to DIN 47100

Mutual capacitance
C/C : approx. 110 pF/m
C/S : approx. 215 pF/m

Peak operating voltage
300 V (not for power applications)

Minimum bending radius
10 x cable diameter

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LiY(ST)Y				
3802841	3 x 24 AWG	4.3	8.4	24
3802842	4 x 24 AWG	4.7	10.5	30
3802843	6 x 24 AWG	5.4	14.7	40
3802844	8 x 24 AWG	5.7	18.9	46
3802845	15 x 24 AWG	7.2	33.6	73
3802846	25 x 24 AWG	8.6	54.5	124
3802847	30 x 24 AWG	9.7	65.0	129

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UNITRONIC® LiY(ST)Y-TP

Info

- UL Style 2464
- UL-approved

Application range

- Suitable for use in data transmission for audio and control measurement
- For use in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- UL - approved
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned annealed copper
- Semi-Rigid PVC core insulation
- Twisted pair
- Aluminium foil screening
- Tinned copper drain wire
- PVC outer sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
acc. to DIN 47100 (Twisted Pairs)
Pair 1 : white/brown
Pair 2 : green/yellow
Pair 3 : grey/pink
Pair 4 : blue/red
Pair 5 : black/violet

Peak operating voltage
300 V (not for power applications)

Minimum bending radius
10 x cable diameter

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LiY(ST)Y-TP				
3802856	1 x 2 x 24 AWG	4.0	6.4	21
3803952	2 x 2 x 24 AWG	6.0	10.5	48
3803953	3 x 2 x 24 AWG	5.8	14.7	42
3803954	4 x 2 x 24 AWG	6.4	18.9	51
3803955	5 x 2 x 24 AWG	6.9	23.1	60
3802855	1 x 2 x 22 AWG	4.6	9.8	32
3803960	2 x 2 x 22 AWG	5.6	16.3	43
3803961	3 x 2 x 22 AWG	6.4	22.8	54
3803962	4 x 2 x 22 AWG	7.1	29.4	66
3803963	5 x 2 x 22 AWG	7.7	35.9	79
3802854	1 x 2 x 20 AWG	5.1	15.3	41
3803990	2 x 2 x 20 AWG	6.3	25.5	59
3803991	3 x 2 x 20 AWG	7.3	35.7	74
3803992	4 x 2 x 20 AWG	8.1	45.9	90
3803993	5 x 2 x 20 AWG	8.8	56.1	109
3803970	1 x 2 x 18 AWG	5.6	23.4	49
3803971	2 x 2 x 18 AWG	7.7	39.0	79
3803972	3 x 2 x 18 AWG	8.4	54.6	99
3803973	4 x 2 x 18 AWG	9.4	70.2	123
3803974	5 x 2 x 18 AWG	10.2	85.8	148
3803980	1 x 2 x 16 AWG	6.3	38.0	68
3803981	2 x 2 x 16 AWG	8.2	63.4	111
3803982	3 x 2 x 16 AWG	9.6	88.7	141
3803983	4 x 2 x 16 AWG	10.8	114.1	177
3803984	5 x 2 x 16 AWG	11.8	139.4	213

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UNITRONIC® ST 20276

Info

- UL Style 20276
- UL-approved

Application range

- Especially designed for use as control and instrumentation cables
- For static laying in dry and damp environment

Product features

- Pair screening offers optimum protection against external interference at medium and high frequencies
- Twisted cores and individual pair shielding ensures high Near End Cross Talk attenuation
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned copper wires
- PE core insulation
- Cores twisted together
- Individual pair aluminium foil screening
- Tinned copper drain wire
- PVC sheath
- Colour: chrome grey, RAL 7005

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black/red, and white/green

Mutual capacitance
C/C : approx. 115 pF/m
C/S : approx. 203 pF/m

Peak operating voltage
30 V

Inductivity
approx. 0.55 mH/km

Minimum bending radius
10 x cable diameter

Characteristic impedance
45 Ohm

Temperature range
-20°C to +60°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 20276				
3800952	2 x 2 x 22 AWG	4.3	20.5	28

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UNITRONIC® ST 20253

Info

- Style 20253

Application range

- Internal wiring for audio, transmission measurement and control signals with minimum noise
- Cost effective and ideal for environment which less susceptible to noise
- For static laying in dry and damp environment

Product features

- 100% shielding, offers optimum protection against external interference at medium and high frequencies
- Ideal solution where flexibility and a high degree of screening is required
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned copper wires
- PE core insulation
- Cores twisted together
- Individual pair of aluminium laminated plastic foil
- Tinned copper drain wire
- PVC sheath
- Colour: chrome grey, RAL 7005

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black, natural

Mutual capacitance
C/C : approx. 75 pF/m
C/S : approx. 114 pF/m

Peak operating voltage
600 V (not for power applications)

Inductivity
approx. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristic impedance
65 Ohm

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 20253				
3800717	1 x 2 x 16 AWG	8.0	33.9	80

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UNITRONIC® ST 2092

Info

- UL Style 2092
- UL-approved

Application range

- Internal wiring for audio, transmission measurement and control signals with minimum noise
- Internal wiring use in data transmission control and measurement cable with minimum noise immunity in the surrounding
- For static laying in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Ideal solution where flexibility and a high degree of screening is required
- Flame retardant in acc. to IEC 60332-1-2
- Twisted pairs ensures good shielding and low noise interference

Product Make-up

- Multi-wire strands of tinned copper wires
- PE core insulation
- Cores twisted together
- Aluminium foil screening
- Tinned copper drain wire
- PVC sheath
- Colour: pebble grey, RAL 7005

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black, natural

Mutual capacitance
C/C : approx. 45 pF/m (24AWG)
C/C : approx. 79 pF/m (22AWG)
C/C : approx. 97 pF/m (18AWG)
C/C : approx. 82 pF/m (16 AWG)
C/S : approx. 107 pF/m (24AWG)
C/S : approx. 154 pF/m (22AWG)
C/S : approx. 145 pF/m (18AWG)
C/S : approx. 168 pF/m (16AWG)

Peak operating voltage
300 V (not for power applications)

Inductivity
approx. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristic impedance
65 Ohm

Temperature range
-30°C to +60°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2092				
3804580	1 x 2 x 24 AWG	4.8	5.7	25
3800764	1 x 2 x 22 AWG	4.4	10.3	29
0033002	1 x 2 x 18 AWG	5.6	20.7	41
3804581	1 x 2 x 16 AWG	6.7	34.5	64
3804950	2 x 20 AWG	5.2	16.2	35

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UNITRONIC® ST 2095 PE

Info

- UL Style 2095
- UL-approved

Application range

- Suitable connection for audio, control signal and instrument measurement
- For use in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned copper wires
- PE core insulation
- Overall screening with aluminium foil
- Tinned annealed copper drain wire
- PVC sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black, red, natural

Mutual capacitance
C/C : approx. 90 pF/m (20 AWG)
C/C : approx. 78.5 pF/m (18 AWG)
C/S : approx. 160 pF/m (20 AWG)
C/S : approx. 158 pF/m (18 AWG)

Peak operating voltage
300 V (not for power applications)

Minimum bending radius
10 x cable diameter

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2095 PE				
3804951	3 x 20 AWG	5.5	21.4	46
3804931	3 x 18 AWG	6.2	28.9	50

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UNITRONIC® ST 2095 PVC

Info

- UL Style 2095
- Security / Alarm cable
- UL-approved

Application range

- Suitable connection for security, alarm intercom, and control measurement
- For use in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of bare copper wires
- PVC core insulation
- Twisted pair, overall screening with aluminium foil
- Tinned annealed copper drain wire
- PVC sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black/red and black/white

Mutual capacitance
C/C : approx. 116 pF/m
C/S : approx. 210 pF/m

Peak operating voltage
300 V (not for power applications)

Minimum bending radius
10 x cable diameter

Temperature range
-20°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2095 PVC				
3804565	2 x 2 x 18 AWG	6.7	39.3	74

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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UNITRONIC® ST 2464

Info

- UL Style 2464
- UL-approved

Application range

- Suitable for use in instrumentation, industrial automation and process control application
- For use in dry and damp environment
- UV-resistant and impervious to mositure penetration

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of bare copper wires
- SR-PVC core insulation
- Cores twisted together
- Static screen of aluminium laminated plastic foil
- PVC sheath
- Tinned copper drain wire
- Colour: black, RAL 9005

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
1-Pair : black/white
2-Pair : black/white, black/red

Mutual capacitance
C/C : approx. 200 pF/m
C/S : approx. 370 pF/m

Peak operating voltage
300 V (not for power applications)

Inductivity
approx. 0.62 mH/km

Minimum bending radius
10 x cable diameter

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2464				
3800718	1 x 2 x 16 AWG	6.5	34.4	66
3803979	2 x 2 x 16 AWG	9.8	64.2	128

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UNITRONIC® ST 2919 PE

Info

- UL Style 2919
- Low capacitance
- UL-approved

Application range

- Suitable for wiring of data systems with high transmission rates
- Designed for use as Data Highway (DH) RS 232, RS 422, and RS 485 interface
- Suitable for use as control and instrumentation cables
- Suitable for flexible and static laying in dry and samp locations

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Low capacitance, double screened
- Excellent shielding against internal and external interference

Product Make-up

- Multi-wire strands of tinned copper wires
- PE core insulation
- Twisted pair
- Aluminium / mylar
- Tinned copper drain wire
- Tinned copper braiding
- PVC outer sheath
- Colour: pebble grey, RAL 7032
  Colour: chrome grey, RAL 7005

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
1 Pair : wh/bu stripe + bu/wh stripe
2 Pair : wh/og stripe + og/wh stripe

Mutual capacitance
C/C : approx. 42 pF/m
C/S : approx. 76 pF/m

Peak operating voltage
30V (not for power applications)

Inductivity
approx. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
100-120 Ohm

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2919 PE				
3800765	1 x 2 x 24 AWG	5.9	21.3	46
3800953	2 x 2 x 24 AWG	8.8	32.9	86
3804582	1 x 2 x 22 AWG	6.8	28.7	62

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UNITRONIC® ST 2919 PP

Info

- UL Style 2919
- Audio, control and instrumentation
- UL-approved

Application range

- Suitable connection for audio, control and instrumentation measurements in environments immune to noise
- For use in dry and damp environment

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned annealed copper
- PP core insulation
- Twisted pair, individual pair screening of aluminium laminated foil
- Tinned copper drain wire
- PVC sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black/red, black/white, and black/green

Mutual capacitance
C/C : approx. 98 pF/m
C/S : approx. 181 pF/m

Peak operating voltage
30 V (not for power applications)

Inductivity
approx. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
50 Ohm

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2919 PP				
3801708	3 x 2x 22 AWG	7.0	25.7	62

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UNITRONIC® ST 2919 FPE

Info

- UL Style 2919
- Low capacitance
- UL-approved

Application range

- Designed for use as Data Highway (DH) RS 232, RS 422, and RS 485 interface
- Suitable for static laying in dry and damp condition

Product features

- Low capacitance
- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Flexible for use in environment where space is a constraint
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Multi-wire strands of tinned copper wires
- Foam PE core insulationCores twisted together
- Overall screening of aluminium laminated plastic foil
- Tinned copper drain wire
- PVC sheath
- Colour: chrome grey, RAL 7005
- **Core insulation colour:**
  Pair 1: wh/bu stripe + bu/wh stripe
  Pair 2: wh/og stripe + og/wh stripe
  Pair 3: wh/gn stripe + gn/wh stripe
  Pair 4: wh/bu stripe + bu/wh stripe
  Pair 5: wh/gy stripe + gy/wh stripe
  Pair 6: rd/bu stripe + bu/wh stripe
  Pair 7: rd/og stripe + og/rd stripe
  Pair 8: rd/gn stripe + gn/rd stripe
  Pair 9: rd/bu stripe + bu/rd stripe
  Pair 10: rd/gy stripe + gy/rd stripe
  Pair 11: bk/bu stripe + bu/bk stripe
  Pair 12: bk/og stripe + og/bk stripe
  Single conductor: grey

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Mutual capacitance
C/C : approx. 42 pF/m
C/S : approx. 72 pF/m

Peak operating voltage
30 V (not for power applications)

Inductivity
approx. 0.7 mH/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
100-120 Ohm

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 2919 FPE				
3800950	2 x 2 x 24 AWG	6.3	10.5	46
3804943	3 x 2 x 24 AWG	6.7	14.7	42
3800951	4 x 2 x 24 AWG	7.1	19.0	55
3804946	6 x 2 x 24 AWG	8.1	27.3	75
3804947	12 x 2 x 24 AWG + 1 x 24 AWG	10.6	54.6	122

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UNITRONIC® ST 21088 Li2Y(ST)CH LSHF

Info

- Low smoke halogen free

Application range

- Internal wiring for audio, control signal and instrument measurement and RS-485
- For static laying in dry and damp environment
- Where in any case of fire, minimum formation of toxic gas is formed as protection of human life is vital

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Low smoke halogen free outer sheath
- Flame retardant in acc. to IEC 60332-1-2

Norm references / Approvals

- Based on UL AWM Style 21088

Product Make-up

- Strands tinned copper wires
- HDPE core insulation
- Cores twisted together
- Aluminium foil screening
- Tinned copper drain wire
- Tinned copper braiding
- LSHF outer sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Pair 1 : wh/bu x bu/wh
Pair 2 : wh/og x og/wh

Mutual capacitance
C/C : nom. 42 pF/m (1kHz)
C/S : nom. 76 pF/m (1kHz)

Peak operating voltage
30 V max.

Inductivity
nom. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
Nom. 120 Ohm

Temperature range
-30°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 21088 Li2Y(ST)CH LSHF				
3802000	1 x 2 x 24 AWG	5.9	21.3	51
3802001	2 x 2 x 24 AWG	8.8	32.9	85

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UNITRONIC® ST 21305 Li2Y(ST)H LSHF

Info

- Low smoke halogen free

Application range

- Internal wiring for audio, control signal and instrument measurement
- For static laying in dry and damp environment
- Where in any case of fire, minimum formation of toxic gas is formed as protection of human life is vital

Product features

- 100% screen coverage, offers optimum protection against external interference at medium and high frequencies
- Low smoke halogen free outer sheath
- Flame retardant in acc. to IEC 60332-1-2

Norm references / Approvals

- Based on UL AWM Style 21305

Product Make-up

- Stranded tinned copper wires
- PE core insulation
- Cores twisted together
- Aluminium foil screening
- Tinned copper drain wire
- LSHF outer sheath
- Colour: pebble grey, RAL 7032

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
black / natural

Mutual capacitance
C/C : nom. 79 pF/m (1kHz)
C/S : nom. 154 pF/m (1kHz)

Peak operating voltage
300V (not for power applications)

Inductivity
nom. 0.65 mH/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
100 Ohm

Temperature range
-30°C to +60°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® ST 21305 Li2Y(ST)H LSHF				
3803115	1 x 2 x 22 AWG	4.5	10.3	29
3803116	1 x 2 x 20 AWG	5.2	16.2	39
3803117	1 x 2 x 18 AWG	5.7	20.7	46
3803118	1 x 2 x 16 AWG	6.7	34.5	68

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UNITRONIC® Li9Y(ST)Y

Application range

- Suitable connection for audio, control and instrumentation measurements in environments immune to noise
- For use in dry and damp environment

Product features

- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Stranded tinned annealed copper wires
- PP core insulation
- Overall screen of Al/My tape + stranded tinned copper drain wires
- PVC outer sheath, pebble grey

Info

- Shielding
- 100 Ohm

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code

Pair #1: wh/bu	Pair #2: wh/og
Pair #3: wh/gn	Pair #4: wh/bn
Pair #5: wh/gy	Pair #6: rd/bu
Pair #7: rd/og	Pair #8: rd/gn
Pair #9: rd/bn	Pair #10: rd/gy
Pair #11: bk/bu	Pair #12: bk/og
Pair #13: bk/gn	Pair #14: bk/bn
Pair #15: bk/gy	Pair #16: ye/bu
Pair #17: ye/og	Pair #18: ye/gn
Pair #19: ye/bn	Pair #20: ye/gy
Pair #21: vt/bu	Pair #22: vt/og
Pair #23: vt/gn	Pair #24: vt/bn
Pair #25: vt/gy	

Mutual capacitance
nom. 130 pF/m, at i kHz

Characteristics impedance
100 Ohm

Temperature range
-10°C to +80°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® Li9Y(ST)Y				
3802781	1 x 2 x 24 AWG/7	4.2	6.3	21
3802782	2 x 2 x 24 AWG/7	5.4	10.6	33
3802783	3 x 2 x 24 AWG/7	6.0	14.8	40
3802784	4 x 2 x 24 AWG/7	6.6	19.0	47
3802785	6 x 2 x 24 AWG/7	7.6	27.5	62
3802786	8 x 2 x 24 AWG/7	8.5	35.9	79
3802787	10 x 2 x 24 AWG/7	9.2	44.4	94
3802788	12 x 2 x 24 AWG/7	9.9	52.8	108
3802789	16 x 2 x 24 AWG/7	11.1	69.8	139
3802790	25 x 2 x 24 AWG/7	13.4	107.8	199

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UNITRONIC® J-2Y(ST)H TP

Application range

- Data cable for digital communication in a LONWORKS® networks and building automation systems
- Also suitable for use in distributed control network in factory and process automation systems
- For indoor installation
- LONWORKS® is a trademark of ECHELON

Product features

- Offers optimum protection against external interferences
- Low smoke halogen free in acc. to IEC 61034 and IEC 60754-2
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Solid bare annealed copper wires
- PE core insulation
- Cores twisted together
- Aluminium laminated polyester foil screen + solid tinned annealed copper drain wire
- LSHF outer sheath, white

Info

- LONWORKS®
- 100 Ohm

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Pair 1 : bu + wh/bu
Pair 2 : og + wh/og

Mutual capacitance
max. 17 pF/ft (core-core)

Peak operating voltage
300 V (not for power applications)

Minimum bending radius
5 x cable diameter (static)

Characteristics impedance
100 ± 15 Ohm (1MHz)

Temperature range
-20°C to +75°C

Article number	Number of pairs and AWG per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® J-2Y(ST)H TP				
3802596	1 x 2 x 22 AWG/1	4.6	8.5	25
3802597	2 x 2 x 22 AWG/1	6.5	15.0	39

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UNITRONIC® FD SSLCY (TP)

Shielded, low-capacitance, twisted-pair PE/PVC data cable for power chain/cable carrier

Info

- Used in power chain
- Low capacitance
- Oil resistant, flame retardant

Benefits

- Improved transmission characteristics thanks to low capacitance core insulation and twisted pairs
- Cable specification optimized for use in power chain/cable

Application range

- Suitable for use in measuring, control and regulating circuits
- Linear robots, automated handling equipment
- Use in drag chain/cable carrier/power track - in case of horizontal installation travel distances up to 50m
- For indoor and outdoor use

Product features

- Low capacitance
- EMC optimized thanks to overall copper braid shielding
- Flexibility for use in power chain and cable carrier
- Oil-resistant acc. to EN 60811-404
- Flammability: UL/CSA: FT1, IEC: 60332-1-2

Norm references / Approvals

- UL AWM Style 2464 80°C 300V for USA (UL File No. : E481448)
- cRU for Canada：AWM I/II A/B 80°C 300V

Product Make-up

- Flexible conductor made of bare copper strands
- Low-capacitance PP core insulation
- Plastic foil wrapping
- Tinned-copper braiding
- PVC outer sheath, black (RAL 9005)

Technical data

Core identification code
Color code in accordance with DIN 47100

Conductor stranding
Stranded bare copper

Minimum bending radius
Travel distance ≤ 10 m : 7.5 x outer diameter
Travel distance > 10 m : 10 x outer diameter

Nominal voltage
UL & CSA：300 V

Test voltage
Core/Core: 1500 V
Core/Screen: 1500 V

Bending cycles & operation parameters
10 Mio cycles, with below conditions:
- Max. admissible acceleration: 20m/s²;
- Max. movement speed: 3m/s
- Min. bending radius: 12 x outer diameter

Temperature range
Dynamic using: - 5°C to + 70°C (UL: +80°C)
Fixed installation: - 20°C to + 70°C (UL: +80°C)

		Conductor cross-section					
		0.14 mm²	0.25 mm²	0.34 mm²	0.5 mm²	0.75 mm²	1.0 mm²
Number of pairs	1x2x	83011430101	83011430201	83011430301	83011430401	83011430501	83011430601
	2x2x	83011430102	83011430202	83011430302	83011430402	83011430502	83011430602
	3x2x	83011430103	83011430203	83011430303	83011430403	83011430503	83011430603
	4x2x	83011430104	83011430204	83011430304	83011430404	83011430504	83011430604
	5x2x	83011430105	83011430205	83011430305	83011430405	83011430505	83011430605
	6x2x	83011430106	83011430206	83011430306	83011430406	83011430506	
	8x2x	83011430108	83011430208	83011430308	83011430408	83011430508	
	10x2x	83011430110	83011430210	83011430310	83011430410	83011430510	
	12x2x		83011430212				
	14x2x		83011430210		83011430414		
	25x2x		83011430225				

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M12 Open-Ended Cordsets

Info

- Other types are available on request

Benefits

- Cost-saving due to quick and easy installation
- Space-saving due to compact dimensions
- Fast and easy error tracking

Application range

- For medium mechanical stress in dry conditions

Norm references / Approvals

- In acc. to EC 61076-2-101
- UL-listed cable, E-File Number: E63634
- Flame-retardant acc. to UL 1581 FT-1

Product Make-up

- Wire cross-section :22AWG
  Colour-code:
- 3-pin: bn (1), bu (3), bk (4)
  4-pin: bn (1), wh (2), bu (3), bk (4)
  5-pin: bn (1), wh (2), bu (3), bk (4), gn/ye (5)
  Outer sheath: PVC, black

Technical data

Classification
ETIM 5.0 Class-ID: EC001855
ETIM 5.0 Class-Description:
Sensor actuator patch cord

Material
Contacts: Phosphor bronze, gold-plated
Contact carriers: TPU+GF
Coupling nut/screw: Nickel plated brass
Seal: FKM

Minimum bending radius
Fixed installation: 6 x outer diameter

Protection rating
IP 65/IP 67

Ambient temperature (operation)
-25°C to +90°C

Coding
A-standard

Rated current (A)
4A

		3-pins		4-pins		5-pins	
		straight	angled	straight	angled	straight	angled
Product	**Length**	**Article number**					
Plug, unshielded	1.0m	8100012	8100274	8100052	8100322	8100122	8100430
	2.0m	8100013	8100275	8100053	8100323	8100123	8100431
	5.0m	8100015	8100277	8100055	8100325	8100125	8100433
	10.0m	8100173	8100278	8100181	8100326	8100195	8100434
Socket, unshielded	1.0m	8100002	8100262	8100042	8100310	8100112	8100418
	2.0m	8100003	8100263	8100043	8100311	8100113	8100419
	5.0m	8100005	8100265	8100045	8100313	8100115	8100421
	10.0m	8100171	8100266	8100179	8100314	8100193	8100422
Plug, shielded	1.0m	8100032	8100298	8100072	8100346	8100142	8100454
	2.0m	8100033	8100299	8100073	8100347	8100143	8100455
	5.0m	8100035	8100301	8100075	8100349	8100145	8100457
	10.0m	8100177	8100302	8100185	8100350	8100199	8100458
Socket, shielded	1.0m	8100022	8100286	8100062	8100334	8100132	8100442
	2.0m	8100023	8100287	8100063	8100335	8100133	8100443
	5.0m	8100025	8100289	8100065	8100337	8100135	8100445
	10.0m	8100175	8100290	8100183	8100338	8100197	8100446

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UNITRONIC® COAXIAL RG SERIES RG 59/U, RG 6/90, RU 11/U

Info

- Low attenuation loss
- 75 Ohm
- TÜV SÜD PSB type approved for 3801313

Benefits

- Broadband for low loss attenuation of high frequency signal

Application range

- CATV video transmission and data network
- Optimizing frequency up to 1000 MHz
- Suitable for use in dry and damp areas

Product features

- Double screen, offer good screening against external interference
- UV-resistant
- Flame retardant in acc. to IEC 60332-1-2

Norm references / Approvals

- TÜV SÜD PSB type approved for 3801313

Product Make-up

- Bare copper plated steel solid conductor
- Foam PE core insulation
- Aluminium foil bonded, 100% coverage
- Aluminium wire braiding
- PVC outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Coxial cable
ETIM 5.0 Class-ID: EC000019

Mutual capacitance
51 pF/m

Minimum bending radius
Fixed installation: 10 x cable diameter

Characteristics impedance
75 ± 3 Ohm (3800768 & 3800720)
75 ± 2 Ohm (3801313)

Temperature range
Fixed installation: -30°C to +80°C

Article number	Article designation	Conductor cross-section	Outer diameter (mm)	Working voltage in V	Min. braiding coverage	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® COAXIAL RG SERIES RG 59/U, RG 6/90, RU 11/U							
3800768	RG 59/U	1 x 20 AWG	6.0	350	68%	0.3	33
3801313	RG 6/U	1 x 18 AWG	6.8	350	90%	0.5	43
3800720	RG 11/U	1 x 14 AWG	10.2	600	60%	1.2	100

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UNITRONIC® COAXIAL RG 59 /U CCTV

Info

- CCTV / CATV
- 75 Ohm, solid copper

Application range

- CCTV and CATV video tranmission and data networking
- RF/Data communication, 75 Ohm
- Indoor and outdoor (non burial) application

Product features

- Offers good screening against external interference
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Solid bare copper conductor
- PE core insulation
- Bare copper wire braiding, 95% coverage
- PVC outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Coxaial cable
ETIM 5.0 Class-ID: EC000019

Mutual capacitance
67.2 pF/m, C-S

Peak operating voltage
300Vrms max.

Conductor resistance
max. 66.9 Ohm/km
Attenuation loss
11.0 dB/100m at 100 MHz,
40.0 dB/100m at 1000 MHz

Minimum bending radius
10 x cable diameter

Characteristics impedance
75 ± 3 Ohm

Temperature range
-30°C to +70°C

Article number	Conductor cross-section	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® COAXIAL RG 59/U CCTV				
3803951	1 x 23 AWG	6.1	23.8	49

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UNITRONIC® COAXIAL RG 6/U SOLID

Info

- CCTV / CATV
- 75 Ohm, solid copper

Application range

- CCTV and CATV video tranmission and data networking
- RF/Data communication, 75 Ohm
- Indoor and outdoor (non burial) application

Product features

- Offers good screening against external interference
- Flame retardant in acc. to IEC 60332-1-2

Product Make-up

- Solid bare copper conductor
- Foam PE core insulation
- Bare copper wire braiding, approx. 95% coverage
- PVC outer sheath, black

Technical data

Classification
ETIM 5.0 Class-Description: Coaxial cable
ETIM 5.0 Class-ID: EC000019

Mutual capacitance
nom. 54.2 pF/m, C-S

Peak operating voltage
300Vrms max.

Conductor resistance
max. 22 Ohm/km
Attenuation loss
12.0 dB/100m at 300 MHz,
21.0 dB/100m at 1000 MHz

Minimum bending radius
10 x cable diameter

Characteristics impedance
75 ± 3 Ohm

Temperature range
-30°C to +70°C

Article number	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® COAXIAL RG 6/U SOLID			
3804606	6.9	26.7	56

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Data Cables • Bus systems

UNITRONIC® BUS DeviceNet™ THICK + THIN

Info

- DeviceNet™

Application range

- Stationary application
- DeviceNet™ connects industrial devices e.g. limit switches, photoelectric switches, valve islands, motor starters, drivers, PLCs, etc
- DeviceNet™ Bus system (Rockwell Automation)

Product Make-up

- Stranded tinned copper conductor
- PE core insulation
- PVC sheath
- Colour: chrome grey, RAL 7005

Product features

- Based on proven CAN (Controller Area Network) technology
- Permissible cable lengths vary with the data rate and the cable thickness
- THICK cable total trunk length 125 kbit/s = 100 m
- THIN cable total trunk length 125 kbit/s = 6 m 250 kbit/s = 6 m 500 kbit/s = 6 m

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Data pair: light blue + white
Power supply: red + black

Mutual capacitance
(800 Hz) max. 40 nF/km

Peak operating voltage
300 V (not for power applications)

Conductor resistance
Thick (loop): max. 45 ohm/km
Thin (loop): max. 180 ohm/km

Minimum bending radius
Fixed installation: 10 x outer diameter

Characteristics impedance
at 1 MHz: 120 ± 10 Ohm

Temperature range
Fixed installation: -20°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS DeviceNet™ THICK + THIN					
3801234	DeviceNet THICK	1x2x18AWG + 1x2x15AWG	12.0	80.9	159
3801235	DeviceNet THIN	1x2x24AWG + 1x2x22AWG	7.2	30.5	67

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UNITRONIC® BUS L2/FIP FC

Info

- Fast Connect (FC) cable design
- PROFIBUS

Application range

- For stationary installation for Bus Systems 150 Ohm impedance
- Dry and samp indoors

Product features

- This bus cable can be used for PROFIBUSDP as well as for PROFIBUS-FMS and FIP
- Based on the bit rates listed, in accordance with PNO specifications the following maximum cable lengths for a bus segment apply (cable type A, PROFIBUS-DP): 93.75 kbit/s = 1200 m1875 kbit/s = 1000 m500 kbit/s = 400 m1.5 Mbit/s = 200 m12.0Mbit/s = 100 m
- Flame retardant in acc. to IEC 60332-1-2

Norm references / Approvals

- In accordance with DIN 19245 and EN 50170, e.g. for SIEMENS SIMATIC NET, also suitable for FIP (Factory Instrumentation Protocol)

Product Make-up

- Single wire of bare copper
- Foam PE core insulationCores twisted together
- Plastic foil wrapping
- Aluminium-mylar tape screen + tinned copper wire braiding
- PVC outer sheath, violet RAL 4001

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
red, green

Mutual capacitance
(800 Hz): max. 30 nF/km

Peak operating voltage
250V (not for power applications)

Conductor resistance
(loop): max. 115 Ohm/km

Minimum bending radius
Fixed installation: 10 x cable diameter

Characteristics impedance
150 ± 15 Ohm

Temperature range
-40°C up to +80°C

Article number	No. of pairs and AWG size	No. of cores and mm² per conductor	Dimension and cross section in mm²	Outer diameter (mm)	Colour	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS L2/FIP FC							
2170320	1 x 2 x 0.64	1 x 2 x 0.64	1 x 2 x 0.64	8.0	violet	26.0	84

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UNITRONIC® BUS PA SWA

Info

- Process Automation (PA)
- PROFIBUS

Benefit

- PROFIBUS-PA with Steel Wire Armouring

Application range

- Designed for the system-defined transmission rates of 1.5 Mbs, and 31.25 KHz
- Suitable for direct burial and permanent installation in harsh and rugged environments
- Suitable for oil and gas, petrochemical, pharmaceutical industry
- For indoor and outdoor use

Product features

- Transmission technology for PROFIBUS-PA in acc. to IEC 61158-2 Standard
- Blue outer sheath colour for intrinsically safe system in harardous area
- Flame retardant in acc. to IEC 60332-1-2
- UV-resistant (for black outer sheath)

Product Make-up

- Stranded bare copper conductor
- Foam PE core insulation
  Aluminium mylar tape screen
- Tinned copper wire braiding
  Galvanized steel wire armoured
- PVC inner sheath, black or blue
  PVC outer sheath
- Colour: black, RAL 9005 or blue, RAL 5015

Technical data

Core identification code
red, green

Mutual capacitance
(800 Hz): approx. 52 nF/km

Peak operating voltage
max. 100V (not for power applications)

Conductor resistance
(loop): max. 44 Ohm/km

Minimum bending radius
10 x cable diameter

Characteristics impedance
at 31.25 kHz: 100 ± 20 Ohm

Test voltage
1500 V

Temperature range
-30°C to +70°C

Article number	Number of pairs and cable diameter per conductor in mm²	Outer sheath colour	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS PA SWA					
3803158	1 x 2 x 1.0	black	12.8	45.0	152
3803159	1 x 2 x 1.0	blue	12.8	45.0	152

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UNITRONIC® BUS FF-844 H1 C LSZH

FF-844 H1 installation cable with EMC and LSZH solution

Info

- Certified with FOUNDATION FIELDBUS "FF- 844 H1"
- For TYPE A installation

Benefits

- Cables meet the requirements of ISA/ SP50 and the FOUNDATION™ field bus for the cable type A

Application range

- FF cables for operating temperature up to +90° C
- Fixed Installation
- Indoor / Outdoor
- Direct burial (Armoured version)
- Tray application (Steel Wire Braid versions)

Product features

- Flammability : According to IEC 60332-1
- LSZH Property
- Oxygen Index(Min.) : >29% as per ASTM D 2863
- Temp. Index (Min.) : >250 Deg C as per ASTM D 2863
- HCL gas emission (Max.): AS PER IEC 754-2; Smoke Density : Min. Visibility 80% as per ASTM D 2843

Norm references / Approvals

- IEC 61158-2
- FF 844
- BS EN 50288-7

Product Make-up

- Conductor : ATC of Class II
- Core Insulation : XLPE
- Individual and Overall Screening : AL-MYLAR tape
- Inner Sheath : LSZH, colour orange
- Mechanical Protection : SSA -Steel strip armour / SWA-Steel wire armour / SY-Steel Braid
- Outer Sheath : LSZH / LSZH with UV and AR, orange

Technical data

Core identification code
Blue and orange cores with numerical printing for pair identification

Peak operating voltage
300 V

Conductor resistance
23.5 Ohm/Km

Minimum bending radius
Unarmoured = 12 X OD
Armoured = 20 X OD

Temperature range
-30°C to +90°C

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF LSZH - CHXOR				
382200013	1 X 2 X 18	9.0	15.4	123
382200037	2 X 2 X 18	15.0	30.7	266
382200061	3 X 2 X 18	15.9	46.1	326
382200085	4 X 2 X 18	17.6	61.4	401
382200229	10 X 2 X 18	27.9	153.5	940
382200277	12 X 2 X 18	28.8	184.2	1,054
UNITRONIC® BUS FF LSZH - CHXSHXOR				
382200021	1 X 2 X 18	13.0	15.4	259
382200045	2 X 2 X 18	19.4	30.7	503
382200069	3 X 2 X 18	20.5	46.1	584
382200093	4 X 2 X 18	22.0	61.4	675
382200237	10 X 2 X 18	32.9	153.5	1,406
382200285	12 X 2 X 18	34.0	184.2	1,559
UNITRONIC® BUS FF LSZH SSA - CHXSSAHXOR				
382200062	3 X 2 X 18	20.9	46.1	822
382200086	4 X 2 X 18	22.4	61.4	932
382200230	10 X 2 X 18	33.3	153.5	1,820
382200278	12 X 2 X 18	34.6	184.2	2,001
UNITRONIC® BUS FF LSZH SWA - CHXSWAHXOR				
382200014	1 X 2 X 18	13.6	15.4	374
382200038	2 X 2 X 18	20.0	30.7	689
UNITRONIC® BUS FF LSZH UVAR - CHXUVAROR				
382200015	1 X 2 X 18	9.0	15.4	123
382200039	2 X 2 X 18	15.0	30.7	266
382200087	4 X 2 X 18	17.6	46.1	401
382200231	10 X 2 X 18	27.9	153.5	940
382200279	12 X 2 X 18	28.8	184.2	1,054

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF LSZH UVAR - CHXSHXUVAROR				
382200022	1 X 2 X 18	13.0	15.4	259
382200046	2 X 2 X 18	19.4	30.7	503
382200070	3 X 2 X 18	20.5	46.1	584
382200238	10 X 2 X 18	32.9	153.5	1,406
382200286	12 X 2 X 18	34.0	184.2	1,559
UNITRONIC® BUS FF LSZH SSA UVAR - CHXSSAHXUVAROR				
382200064	3 X 2 X 18	20.9	46.1	822
382200088	4 X 2 X 18	22.4	61.4	932
382200112	5 X 2 X 18	24.6	76.8	1,111
382200136	6 X 2 X 18	26.6	92.1	1,259
382200160	7 X 2 X 18	26.6	107.5	1,305
382200184	8 X 2 X 18	29.7	122.8	1,541
382200208	9 X 2 X 18	32.2	138.2	1,719
382200232	10 X 2 X 18	33.3	153.5	1,820
382200256	11 X 2 X 18	33.3	168.9	1,865
382200280	12 X 2 X 18	34.6	184.2	2,001
UNITRONIC® BUS FF LSZH SWA UVAR - CHXSWAHXUVAROR				
382200016	1 X 2 X 18	13.6	15.4	374
382200040	2 X 2 X 18	20.0	30.7	689

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UNITRONIC® BUS FF-844 H1 C PVC

FF-844 H1 installation cable with EMC and FR-LSH solution

Info

- Certified with FOUNDATION FIELDBUS "FF- 844 H1"
- For TYPE A installation

Benefits

- Cables meet the requirements of ISA/ SP50 and the FOUNDATION™ field bus for the cable type A

Application range

- FF cables for operating temperature up to +90° C
- Fixed Installation
- Indoor / Outdoor
- Direct burial (Armoured version)
- Tray application (Steel Wire Braid versions)

Product features

- Flammability : According to IEC 60332-1
- FRLS Property (only For FRLS Outer Sheath)
- Oxygen Index(Min.) : >29% as per ASTM D 2863
- Temp. Index (Min.) : >250 Deg C as per ASTM D 2863
- HCL gas emission (Max.): 20% By weight; Smoke Density : Min. Visibility 40% as per ASTM D 2843

Norm references / Approvals

- IEC 61158-2
- FF 844
- BS EN 50288-7

Product Make-up

- Conductor : ATC of Class II
- Core Insulation : XLPE
- Individual and Overall Screening : AL-MYLAR tape
- Inner Sheath : Special PVC, flameretardant low smoke low halogen, orange
- Mechanical Protection : SSA -Steel strip armour / SWA-Steel wire armour / SY-Steel Braid
- Outer Sheath : Special PVC, flameretardant low smoke low halogen with UV and AR, orange

Technical data

Core identification code
Blue and orange cores with numerical printing for pair identification

Peak operating voltage
300 V

Conductor resistance
23.5 Ohm/Km

Minimum bending radius
Unarmoured = 10 X OD
Armoured = 18 X OD

Temperature range
-30°C to +90°C

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF PVC - CYC3OR				
382200001	1 X 2 X 18	9.0	15.4	123
382200025	2 X 2 X 18	15.0	30.7	266
382200217	10 X 2 X 18	27.9	153.5	940
382200265	12 X 2 X 18	28.8	184.2	1,054
UNITRONIC® BUS FF PVC S - CYC3SYC3OR				
382200009	1 X 2 X 18	13.0	15.4	259
382200033	2 X 2 X 18	19.4	30.7	503
382200225	10 X 2 X 18	32.9	153.5	1,406
382200273	12 X 2 X 18	34.0	184.2	1,559
UNITRONIC® BUS FF PVC SSA - CYC3SSAYC3OR				
382200218	10 X 2 X 18	33.3	153.5	1,820
382200266	12 X 2 X 18	34.6	184.2	2,001
UNITRONIC® BUS FF PVC SWA - CYC3SWAYC3OR				
382200002	1 X 2 X 18	13.6	15.4	374
382200026	2 X 2 X 18	20.0	30.7	689
UNITRONIC® BUS FF PVC UVAR - CYC3UVAROR				
382200003	1 X 2 X 18	9.0	15.4	123
382200027	2 X 2 X 18	15.0	30.7	266
382200267	10 X 2 X 18	27.9	153.5	940
382200038	12 X 2 X 18	28.8	184.2	1,054

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF PVC S UVAR - CYC3SYC3UVAROR				
382200010	1 X 2 X 18	13.0	15.4	259
382200034	2 X 2 X 18	19.4	30.7	503
382200058	3 X 2 X 18	20.5	46.1	584
382200082	4 X 2 X 18	22.0	61.4	675
382200106	5 X 2 X 18	24.2	76.8	821
382200130	6 X 2 X 18	26.2	92.1	937
382200154	7 X 2 X 18	26.2	107.5	982
382200178	8 X 2 X 18	29.3	122.8	1186
382200202	9 X 2 X 18	31.8	138.2	1318
382200226	10 X 2 X 18	32.9	153.5	1406
382200250	11 X 2 X 18	32.9	168.9	1451
382200274	12 X 2 X 18	34.0	184.2	1559
UNITRONIC® BUS FF PVC SSA UVAR - CYC3SSAYC3UVAROR				
382200052	3 X 2 X 18	20.9	46.1	822
382200076	4 X 2 X 18	22.4	61.4	932
382200100	5 X 2 X 18	24.6	76.8	1111
382200124	6 X 2 X 18	26.6	92.1	1259
382200148	7 X 2 X 18	26.6	107.5	1305
382200172	8 X 2 X 18	29.7	122.8	1541
382200196	9 X 2 X 18	32.2	138.2	1719
382200220	10 X 2 X 18	33.3	153.5	1820
382200244	11 X 2 X 18	33.3	168.9	1865
382200268	12 X 2 X 18	34.6	184.2	2001
UNITRONIC® BUS FF PVC SWA UVAR - CYC3SWAYC3UVAROR				
382200004	1 X 2 X 18	13.6	15.4	374
382200028	2 X 2 X 18	20.0	30.7	689

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UNITRONIC® BUS FF-844 H1 LSZH

FF-844 H1 installation cable with LSZH solution

Info

- Certified with FOUNDATION FIELDBUS "FF- 844 H1"
- For TYPE A installation

Benefits

- Cables meet the requirements of ISA/ SP50 and the FOUNDATION™ field bus for the cable type A

Application range

- FF cables for operating temperature up to +90° C
- Fixed Installation
- Indoor / Outdoor
- Direct burial (Armoured version)
- Tray application (Steel Wire Braid versions)

Product features

- Flammability : According to IEC 60332-1
- LSZH Property
- Oxygen Index(Min.) : >29% as per ASTM D 2863
- Temp. Index (Min.) : >250 Deg C as per ASTM D 2863
- HCL gas emission (Max.): AS PER IEC 754-2; Smoke Density : Min. Visibility 80% as per ASTM D 2843

Norm references / Approvals

- IEC 61158-2
- FF 844
- BS EN 50288-7

Product Make-up

- Conductor : ATC of Class II
- Core Insulation : XLPE
- Individual and Overall Screening : AL-MYLAR tape
- Inner Sheath : LSZH, colour orange
- Mechanical Protection : SSA -Steel strip armour / SWA-Steel wire armour / SY-Steel Braid
- Outer Sheath : LSZH / LSZH with UV and AR, orange

Technical data

Core identification code
Blue and orange cores with numerical printing for pair identification

Peak operating voltage
300 V

Conductor resistance
23.5 Ohm/Km

Minimum bending radius
Unarmoured = 12 X OD
Armoured = 20 X OD

Characteristic impedance
100 ± 20 Ω At 31.25 kHz

Temperature range
-30°C to +90°C

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF LSZH - HXOR				
382200017	1 X 2 X 18	8.6	15.4	90
382200041	2 X 2 X 18	14.7	30.7	220
382200233	10 X 2 X 18	27.4	153.5	785
382200281	12 X 2 X 18	28.3	184.2	893
382200349	20 X 2 X 18	35.8	307.1	1,418
382200381	24 X 2 X 18	39.9	368.5	1,685
382200389	25 X 2 X 18	39.9	383.8	1,733
UNITRONIC® BUS FF LSZH S - HXSHXOR				
382200023	1 X 2 X 18	12.6	15.4	222
382200047	2 X 2 X 18	18.9	30.7	443
382200239	10 X 2 X 18	32.4	153.5	1,250
382200287	12 X 2 X 18	33.3	184.2	1,371
UNITRONIC® BUS FF LSZH SSA - HXSWAHXOR				
382200234	10 X 2 X 18	32.8	153.5	1,648
382200282	12 X 2 X 18	33.7	184.2	1,783
382200350	20 X 2 X 18	41.6	307.1	2,579
382200382	24X 2 X 18	46.3	368.5	3,050
382200390	25 X 2 X 18	46.3	383.8	3,099
UNITRONIC® BUS FF LSZH SWA - HXSWAHXOR				
382200018	1 X 2 X 18	13.2	15.4	330
382200042	2 X 2 X 18	19.7	30.7	635
UNITRONIC® BUS FF LSZH UVAR - HXUVAROR				
382200019	1 X 2 X 18	8.6	15.4	90
382200043	2 X 2 X 18	14.7	30.7	220
382200235	10 X 2 X 18	27.4	153.5	785
382200283	12 X 2 X 18	28.3	184.2	893
382200351	20 X 2 X 18	35.8	307.1	1,418
382200383	24 X 2 X 18	39.9	368.5	1,685
382200391	25 X 2 X 18	39.9	383.8	1,733

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF LSZH S UVAR- HXSHXUVAROR				
382200024	1 X 2 X 18	12.6	15.4	222
382200048	2 X 2 X 18	18.9	30.7	443
382200240	10 X 2 X 18	32.4	153.5	1,250
382200288	12 X 2 X 18	33.3	184.2	1,371
UNITRONIC® BUS FF LSZH SSA UVAR - HXSSAHXUVAROR				
382200068	3 X 2 X 18	20.7	46.1	768
382200092	4 X 2 X 18	22.2	61.4	874
382200116	5 X 2 X 18	24.2	76.8	1,012
382200140	6 X 2 X 18	26.2	92.1	1,148
382200236	10 X 2 X 18	32.8	153.5	1,648
382200284	12 X 2 X 18	33.7	184.2	1,783
382200352	20 X 2 X 18	41.6	307.1	2,579
382200384	24 X 2 X 18	46.3	368.5	3,050
382200392	25 X 2 X 18	46.3	383.8	3,099
UNITRONIC® BUS FF LSZH SWA UVAR - HXSWAHXUVAROR				
382200020	1 X 2 X 18	13.2	15.4	330
382200044	2 X 2 X 18	19.7	30.7	635

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UNITRONIC® BUS FF-844 H1 PVC

FF-844 H1 installation cable with FR-LSH solution

Info

- Certified with FOUNDATION FIELDBUS "FF- 844 H1"
- For TYPE A installation

Benefits

- Cables meet the requirements of ISA/ SP50 and the FOUNDATION™ field bus for the cable type A

Application range

- FF cables for operating temperature up to +90° C
- Fixed Installation
- Indoor / Outdoor
- Direct burial (Armoured version)
- Tray application (Steel Wire Braid versions)

Product features

- Flammability : According to IEC 60332-1
- FRLS Property (only For FRLS Outer Sheath)
- Oxygen Index(Min.) : >29% as per ASTM D 2863
- Temp. Index (Min.) : >250 Deg C as per ASTM D 2863
- HCL gas emission (Max.): 20% By weight; Smoke Density : Min. Visibility 40% as per ASTM D 2843

Norm references / Approvals

- IEC 61158-2
- FF 844
- BS EN 50288-7

Product Make-up

- Conductor : ATC of Class II
- Core Insulation : XLPE
- Individual and Overall Screening : AL-MYLAR tape
- Inner Sheath : Special PVC, flameretardant low smoke low halogen, orange
- Mechanical Protection : SSA -Steel strip armour / SWA-Steel wire armour / SY-Steel Braid
- Outer Sheath : Special PVC, flame retardant low smoke low halogen with UV and AR, orange

Technical data

Core identification code
Blue and orange cores with numerical printing for pair identification

Peak operating voltage
300 V

Conductor resistance
23.5 Ohm/Km

Minimum bending radius
Unarmoured = 10 X OD
Armoured = 18 X OD

Characteristic impedance
100 ± 20 Ω At 31.25 kHz

Temperature range
-30°C to +90°C

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF PVC - YC3OR				
382200005	1 X 2 X 18	8.6	15.4	90
382200029	2 X 2 X 18	14.7	30.7	220
382200221	10 X 2 X 18	27.4	153.5	785
382200345	20 X 2 X 18	35.8	307.1	1,418
382200377	24 X 2 X 18	39.9	368.5	1,685
UNITRONIC® BUS FF PVC S - YC3SYC3OR				
382200011	1 X 2 X 18	12.6	15.4	222
382200035	2 X 2 X 18	18.9	30.7	443
382200227	10 X 2 X 18	32.4	153.5	1,250
UNITRONIC® BUS FF PVC SSA - YC3SSAYC3OR				
382200222	10 X 2 X 18	32.8	153.5	1,648
382200346	20 X 2 X 18	41.6	307.1	2,579
382200378	24 X 2 X 18	46.3	368.5	3,050
UNITRONIC® BUS FF PVC SWA - YC3SWAYC3OR				
382200006	1 X 2 X 18	13.2	15.4	330
382200030	2 X 2 X 18	19.7	30.7	635
UNITRONIC® BUS FF PVC UVAR - YC3UVAROR				
382200007	1 X 2 X 18	8.6	15.4	90
382200031	2 X 2 X 18	14.7	30.7	220
382200223	10 X 2 X 18	27.4	153.5	785
382200347	20 X 2 X 18	35.8	307.1	1,418
382200379	24 X 2 X 18	39.9	368.5	1,685
UNITRONIC® BUS FF PVC S UVAR - YC3SYC3UVAROR				
382200012	1 X 2 X 18	12.6	15.4	222
382200036	2 X 2 X 18	18.9	30.7	443
382200228	10 X 2 X 18	32.4	153.5	1,250

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® BUS FF PVC SSA UVAR - YC3SSAYC3UVAROR				
382200056	3 X 2 X 18	20.7	46.1	768
382200080	4 X 2 X 18	22.2	61.4	874
382200104	5 X 2 X 18	24.2	76.8	1,012
382200128	6 X 2 X 18	26.2	92.1	1,148
382200152	7 X 2 X 18	26.2	107.5	1,197
382200176	8 X 2 X 18	29.2	122.9	1,381
382200200	9 X 2 X 18	31.6	138.2	1,549
382200224	10 X 2 X 18	32.8	153.5	1,648
382200248	11 X 2 X 18	32.8	168.9	1,697
382200272	12 X 2 X 18	33.7	184.3	1,783
382200316	16 X 2 X 18	37.5	245.7	2,177
382200348	20 X 2 X 18	41.6	307.1	2,579
382200356	21 X 2 X 18	41.6	322.4	2,627
382200364	22 X 2 X 18	44.0	337.8	2,814
382200372	23 X 2 X 18	44.0	353.1	2,863
382200380	24 X 2 X 18	46.3	368.5	3,050
382200388	25 X 2 X 18	46.3	383.8	3,099
UNITRONIC® BUS FF PVC SWA UVAR - YC3SWAYC3UVAROR				
382200008	1 X 2 X 18	13.2	15.4	330
382200032	2 X 2 X 18	19.7	30.7	635

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3

ETHERLINE®

Data communication systems for ETHERNET technology

Our ETHERLINE® branded products open up a secure, fast and reliable path to the future of Ethernet applications, e. g. PROFINET®. The systems are made up of durable and robust cables and connection components for passive and active network technology, and deliver an effective solution for almost any application, particularly in an industrial environment.

Application range

- Industry and building networks
- Industrial machinery and plant engineering
- Automation technology
- Control engineering

Structured Cabling

Structured Cabling Accessories • Connectors

Switches • VPN Router

UNITRONIC® LAN 200 UTP Cat.5e

Info

- PVC or Halogen-free outer sheath
- Solid conductor
- 200 MHz

Application range

- Data transfer for horizontal network backbone for wiring office administration and development buildings
- Cable run should not exceed 100 m in acc. to ISO/IEC 11801 and EN 50173

Product features

- Transmission rate up to 200 MHz
- Flame retardant acc. to IEC 60332-1-2
- Halogen free acc. to IEC 60754-1 (for Halogen free outer sheath only)

Product Make-up

- Solid bare conductor
- PE core insulation
- PVC or Halogen-free outer sheath
- Colour: pebble grey, RAL 7032
- Packaging: 305 m/box

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Pair 1 : blue + white/blue
Pair 2 : orange + white/orange
Pair 3 : green + white/green
Pair 4 : brown + white/brown

Mutual capacitance
max. 56.0 pF/m (core-core)

Minimum bending radius
Fixed installation: 4 x cable diameter

Characteristic impedance
100 ± 15 Ohm at 100 MHz

Temperature range
-20°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Outer diameter (mm)	Outer sheath type	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LAN 200 UTP Cat.5e						
3803513	LAN 200 UTP Cat.5e	4 x 2 x 24 AWG	5.1	PVC	14.9	29
3803999K	LAN 200 UTP-H Cat.5e	4 x 2 x 24 AWG	5.1	Halogen-free	14.9	29

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UNITRONIC® LAN 250 UTP Cat.6

Info

- PVC or Halogen-free outer sheath
- Solid conductor
- 250 MHz

Application range

- Data transfer for horizontal network backbone for wiring office administration and development buildings
- Cable run should not exceed 100 m in acc. to ISO/IEC 11801 and EN 50173

Product features

- Transmission rate up to 250 MHz
- Flame retardant acc. to IEC 60332-1-2
- Halogen free acc. to IEC 60754-1 (for Halogenfree outer sheath only)

Product Make-up

- Solid bare conductor
- PE core insulation
- PVC or Halogen-free outer sheath
- Colour: pebble grey, RAL 7032
- Packaging: 305 m/box

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Pair 1 : blue + white/blue
Pair 2 : orange + white/orange
Pair 3 : green + white/green
Pair 4 : brown + white/brown

Mutual capacitance
max. 56.0 pF/m (core-core)

Minimum bending radius
Fixed installation: 4 x cable diameter

Characteristic impedance
100 ± 15 Ohm at 100 MHz

Temperature range
-20°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Outer diameter (mm)	Outer sheath type	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LAN 250 UTP Cat.6						
3801501K	LAN 250 UTP Cat.6	4 x 2 x 23 AWG	6.4	PVC	17.9	40
3804000K	LAN 250 UTP-H Cat.6	4 x 2 x 23 AWG	6.4	Halogen-free	17.9	40

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UNITRONIC® LAN 500 U/FTP Cat.6A

Info

- PVC or Halogen-free outer sheath
- Solid conductor
- 500 MHz

Application range

- Data transfer for horizontal network backbone for wiring office administration and development buildings
- Cable run should not exceed 100 m in acc. to ANSI/TIA-568-C.2, ISO/IEC 11801 and EN 50173

Product features

- Transmission rate up to 500 MHz
- Flame retardant acc. to IEC 60332-1-2
- Halogen free acc. to IEC 60754-1 (for LSHF outer sheath only)

Product Make-up

- Solid bare conductor
- Foam PE core insulation
- Individual pair screen of Al foil
- Solid tinned copper drain wire
- PVC or LSHF outer sheath
- Colour: pebble grey, RAL 7032
- Packaging: 305 m/box

Technical data

Classification
ETIM 5.0 Class-Description: Data cable
ETIM 5.0 Class-ID: EC000830

Core identification code
Pair 1 : blue + white/blue
Pair 2 : orange + white/orange
Pair 3 : green + white/green
Pair 4 : brown + white/brown

Mutual capacitance
max. 56.0 nF/100 m

Minimum bending radius
Fixed installation: 4 x cable diameter

Characteristic impedance
100 ± 15 Ohm at 100 MHz

Temperature range
-20°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® LAN 500 U/FTP Cat.6A					
3804900	LAN 500 U/FTP Cat.6A PVC	4 x 2 x 23 AWG/1	7.2	21.0	52
3804910	LAN 500 U/FTP Cat.6A LSHF	4 x 2 x 23 AWG/1	7.2	21.0	52

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Intertek

ETHERLINE® LAN Cat.6$_A$

Ethernet cable for Category 6$_A$ / class E$_A$ - verified up to 500 MHz

Info

- Low Smoke Zero Halogen outer sheath
- Solid conductor
- Bandwidth up to 500MHz
- Remote Powering : IEEE 802.3bt

Benefits

- LAN cables for structured building cabling according to EN 50173-1, TIA-568.2-D 2009 and ISO/IEC 11801-1
- Barrier Technology for uniform heat flow dissipation and maintain insertion loss performance. (For 8100600)
- Less risk of system slow down through 90W application. (For 8100600)

Application range

- For office wiring, administration and development buildings in tertiary sector. (floor wiring)
- Cable length in tertiary area (horizontal area, floor) should not exceed a length of 100m in accordance with ISO/IEC 11801-1, TIA-568.2-D and EN 50173 standards. (90m in cable duct + 10m in working area)
- Power over Ethernet (PoE) application upto 90W
- Support current and future Cat6a and Cat6 application such as 10GBase-T and 1000Base-T

Product features

- Transmission rate up to 500MHz
- Flame Retardant according to IEC60332-1-2
- Acid Gas Emission Test according to IEC60754-1&2
- Smoke Density Test according to IEC61034-2
- Remote Powering : IEEE 802.3bt Type 1, Type 2, Type 3 & Type 4

Norm references / Approvals

- ETL Verified to ANSI/TIA-568.2-D, ISO/IEC 11801-1 and EN 50173-1 Category 6A

Product Make-up

- Solid conductor 4x2xAWG23/1
- PE core insulation
- U/UTP : No overall or pair screening, 2 cores stranded to pair, 4 pairs stranded to bundle with central cross
- F/UTP : Foil shielding as overall shielding, 2 cores stranded to pair, 4 pairs stranded to bundle with central cross
- Outer Sheath as LSZH (grey RAL7032)
- Packaging : 305 m/box

Technical data

Core identification code
Pair 1 : Blue + White/Blue
Pair 2 : Orange + White/Orange
Pair 3 : Green + White/Green
Pair 4 : Brown + White/Brown

Minimum bending radius
Fixed installation : 4 x outer diameter
During installation : 8 x outer diameter

Characteristic impedance
Norm. 100Ω

Temperature range
Fixed installation : -20°C to +70°C

Article number	Article designation	Number of pairs and AWG per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)	Product Packaging
ETHERLINE® LAN Cat.6$_A$						
8100600	ETHERLINE® LAN Cat.6$_A$ U/UTP H	4 x 2 x 23AWG/1	7.2	21.0	50	500m per drum
8100600K	ETHERLINE® LAN Cat.6$_A$ U/UTP H	4 x 2 x 23AWG/1	7.2	21.0	50	305m Pull Box
8100606	ETHERLINE® LAN Cat.6$_A$ F/UTP H	4 x 2 x 23AWG/1	7.4	21.0	52	500m per drum
8100606K	ETHERLINE® LAN Cat.6$_A$ F/UTP H	4 x 2 x 23AWG/1	7.4	21.0	52	305m Pull Box

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PATCHCORD Cat.6

Benefits

- Economical patch cords that fits into general commercial or industrial applications

Application range

- Office Equipment connections
- Control cabinet wiring
- Servers or routers

Norms references / Approvals

- In accordance to ANSI/TIA-568-C.2, ISO/IEC 11801

Product Features

- Available in U/UTP PVC and F/UTP LSZH versions
- Available in different lengths
- Popular colours in range, such as blue, yellow, orange, grey and black

Product Make-up

- Conductor type: Stranded bare copper wires
- Core Insulation: HD Polyethylene
- Moulded RJ45 connectors

Technical data

Core identification code
Pair 1 Blue + White/Blue
Pair 2 Orange + White/Orange
Pair 3 Green + White/Green
Pair 4 Brown + White/Brown

Rated voltage
150 V

Test voltage
1000 V Dielectric test

Temperature range
Fixed installation: -20°C to +65°C

Length (m)	black	grey	blue	yellow	orange
PATCHCORD Cat.6 U/UTP PVC					
0.5	3805594	3805614	3805634	3805654	3805800
1	3805595	3805615	3805635	3805655	3805801
1.5	3805596	3805616	3805636	3805656	3805802
2	3805597	3805617	3805637	3805657	3805803
3	3805598	3805618	3805638	3805658	3805804
5	3805599	3805619	3805639	3805659	3805805
7.5	3805600	3805820	3805640	3805660	3805806
10	3805601	3805821	3805641	3805661	3805807
15	3805602	3805822	3805642	3805662	3805808
20	3805603	3805823	3805643	3805663	3805809

Length (m)	black	grey	blue	yellow	orange
PATCHCORD Cat.6 F/UTP LSZH					
0.5	3805604	3805824	3805644	3805664	3805810
1	3805605	3805825	3805645	3805665	3805811
1.5	3805606	3805826	3805646	3805666	3805812
2	3805607	3805827	3805647	3805667	3805813
3	3805608	3805828	3805648	3805668	3805814
5	3805609	3805829	3805649	3805669	3805815
7.5	3805610	3805830	3805650	3805670	3805816
10	3805611	3805831	3805651	3805671	3805817
15	3805612	3805632	3805652	3805672	3805818
20	3805613	3805633	3805653	3805673	3805819

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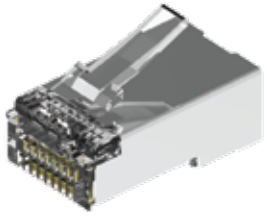
Cat.6 EASY RJ45 PLUG



Product features

- Easy termination on the field and special pass through design
- Crimp and cut extra wire in just one press
- Suitable for stranded and solid wire 23-26 AWG
- For Wire OD from Ø 0.93- Ø1.04
- Work with special crimping tool for easy RJ45 plug for easy assembly
- 3 pronged blade for reliable connection

Norm references / Approvals

- UL 94 V-2

Application range

- For indoor use
- For use with Cat. 6 connector
- Suitable for S/FTP, U/FTP, UTP cable

Product Make-up

- Unshielded Shell: Polycarbonate housing, UL 94 V-2
- Color : Transparent
- Contact Blade : Copper Alloy
- Gold Plating: 50u
- Shielded Shell : Copper Alloy (For 3800402)

Technical data

Insulation resistance
500 MΩ
Contact resistance
20 mΩ Max
Temperature range
-10°C to 60°C (Operating Temperature)

Article number	Article description	Packaging Info
3800401	CAT.6 UTP EASY RJ45 PLUG	100 pcs
3800402	CAT.6 STP EASY RJ45 PLUG	100 pcs

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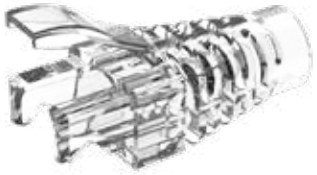
Cat.6 EASY RJ45 PLUG BOOT



Product features

- Ideal way to protect the network cable
- Extension latch for easy unlocking
- Slim boot design can fit with high density panel

Product Make-up

- Boot, clear, OD 6.5mm
- 100% Polycarbonate material
- OD : 6.5 / 6.0 / 5.2 / 4.5 mm
- Fits Easy RJ45 plug (Shielded/ Unshielded)

Application range

- For indoor use
- Suitable for S/FTP, U/FTP, UTP cable

Article number	Article description	Packaging Info
3800403	RJ45 Boot Transparent	100 pcs

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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NEW

Compact Ethernet Cable Stripper

Product features
- Two-in-one compact Ethernet Cable Stripper with stripping and cable cutting function
- Support jacket dimension from Ø 3.5mm to 9mm
- Adjustable knob for setting different blade depth for different cable outer diameter
- Spring controller to prevent scoring of inner cable during stripping

Application range
- Suitable for both UTP/ STP and multi conductor cable

Product Make-up
- Length: 4.4" (111.5mm)
- Weight: 40g
- Material: ABS (Body), SK5 (Blade)

Technical data
Suitable for both UTP/ STP and multi conductor cable

Article number	Article description
3800405	Compact Ethernet Cable Stripper

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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Easy RJ45 Plug Crimping Tool

Product features
- Fit with all RJ45 connectors, easy pass through RJ45 Plugs
- Crimp, press and trim Easy RJ45 Plug in One step (Time Saving)
- Light weight And Easy Carry Tool For On-site
- Suitable for RJ11,RJ12 and RJ45 modular plug
- Solid easy crimping tool with Anti-slip grip

Application range
- For indoor usage, on-site

Product Make-up
- Dimension : 221mm x 57.4mm x 20mm (L x B x W)
- Blue handle : PP
- Black handle : TPR
- Dia set head : S50C
- Crimping Diameter set 8P & 6P : SK5
- Fit easy RJ45 plug (both UTP & STP)

Technical data
Suitable for RJ11,RJ12 and RJ45 modular plug

Article number	Article description
3800404	Easy RJ45 Plug Crimping Tool

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NEW

RJ45 Cat.6$_A$ Keystone Jack with Shutter

Product features

- Cat.6$_A$ transmission performance offers up to 10 Gbit/s
- Compatible with most Keystone RJ45 Jack Faceplates
- Suitable for 23AWG – 26AWG stranded and solid wire

Application range

- Used in ethernet cables for data transmission. Suitable for 10GBASE-T system, TIA Category 6$_A$, and ISO Class EA

Norm references / Approvals

- Cat.6$_A$ acc. to ISO/IEC 11801
- RJ45 acc. to IEC 60603-7-1/4
- ANSI/TIA-568-C.2 2009

Product Make-up

- Housing : - Zinc die-cast with nickel plating (8100601)
  - ABS+PC (8100603)
- IDC Terminal : Phosphor bronze with nickel plating
- Modular Jack Type : Shielded (8100601)
  Unshielded (8100603)

Technical data

Temperature range
-10°C to 60°C (Operating Temperature)

Article number	Article description
8100601	Cat.6A STP Keystone Jack with Shutter
8100603	Cat.6A UTP Keystone Jack with Shutter

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NEW

RJ45 Cat.6$_A$ Field Termination Plug

Product features

- Cat.6$_A$ transmission performance offers up to 10 Gbit/s
- Suitable for 23AWG – 26AWG stranded and solid wire
- Cable OD range : 6.0 - 7.5 mm
- Wiring Scheme : T568A/B

Application range

- Used in ethernet cables for data transmission. Suitable for 10GBASE-T system, TIA Category 6$_A$, and ISO Class EA

Norm references / Approvals

- Cat.6$_A$ acc. to ISO/IEC 11801
- RJ45 acc. to IEC 60603-7-1/4
- ANSI/TIA-568-C.2 2009

Product Make-up

- Zinc die-casting with nickel plated
- Housing : PC, UL 94 V-2 , Black color
- IDC Terminal : Phosphor bronze with nickel plating
- Field Termination Plug type : Shielded

Technical data

Temperature range
-10°C to 60°C (Operating Temperature)

IP20

Article number	Article description
8100602	Cat.6$_A$ STP Field Termination Plug Black
8100607	Cat.6$_A$ STP Angled Field Termination Plug

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NEW

Pressing Tools for Jacks and Plugs

Product features
- Handy tool for assembling RJ45 connectors
- Includes Stripping Function for cable jackets with outer diameters from 5.0 to 6.2mm

Application range
- For easy assembly of RJ45 Cat.6A STP/ UTP Keystone Jacks and RJ45 Cat.6A STP Field Termination Plugs

Product Make-up
- Dimension: 52mm x 178mm (W x H)
- Pressing Head : SMF5030
  Surface Treatment : Zinc coating
- Handle : S50C
  Handle Cover : PVC

Technical data
For copper solution cabling
For use with RJ45 keystone Jacks and Termination Plugs

Article number	Article description
8100605	Pressing Tools for Jacks and Plugs

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NEW

19" FTP Empty Patch Panel

Product features
- 24-Port 1U Rackmount Empty Patch Panel
- Snap-in structure and able to fit with 180º keystone jack
- Compatible with Keystone Jack
- Front plate with rear support bar and integrated notches for easy strain relief and cable management

Application range
- Data centers, Server rooms, Server Rack Cabinets

Product Make-up
- Dimension: 43.6mm x 482.6mm x 92.3mm (H x W x D)
- Rear Panel : High Density SPCC 1.5mm with Zinc-plated
- Front Plate Edge : Black (RAL 9005) color painted after zinc-plated for both side
- Front Plate Identification : ABS, UL 94-HB
- Support Bar : SPCC, 1.5mm thickness with Black (RAL 9005) color painted
- Ground Wire: 18 AWG Wire, with Green / Yellow striped color, length 40 cm

Technical data
Temperature range
-10ºC to 60ºC (Operating Temperature)

Article number	Article description
8100604	1U 24-Port FTP 19" FTP Empty Patch Panel with support bar

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CE

NEW

TOSIBOX® KEY

Benefits

- Intelligent crypto-processing device that enables a secure connection between your computer and one or more TOSIBOX® Locks,Central Lock and/or Virtual Central Lock

Product features

- 2048 bit RSA key in the cryptographic module
- 4 GB or larger flash memory storage for TOSIBOX® Key software and settings
- USB 2.0 interface, type A, with standard CSP/PKCS#11

Product Make-up

- Durable light metal alloy casing
- Including one Mobile Client for Android or iOS
- 83 mm x 22 mm x 10 mm / 3.27" x 0.87 x 0.39" (L x W x H)

Technical data

Operating temperature 0 °C to +70 °C
Storage temperature -20 °C to +80 °C

Article number	Article description
3806220	TOSIBOX KEY

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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TOSIBOX® SoftKey

The virtual key for your TOSIBOX® ecosystem

Info

- The SoftKey is computer- and user-specific. It cannot be copied over or moved to another device
- The access rights are granted and controlled from the physical TOSIBOX Key, after which the SoftKey remains bound to it
- To activate SoftKey on a PC or Mac, you will need SoftKey license for the Master Key

Benefits

- TOSIBOX® SoftKey is a computer software that enables a secure connection between the computer and one or more TOSIBOX® Locks, giving the user full visibility and control over the network devices connected to the Lock
- TOSIBOX® SoftKey can be installed into cloud services and virtual environments
- TOSIBOX® SoftKey can be created and access right can be granted immediately even from other side of the world
- Two-factor authentication is fulfilled also with SoftKey: device-specific (something in your possession) and password-protected (something only you know)

Application range

- TOSIBOX® SoftKey can be used in computers that do not have an USB port or where the use of USB devices is tricky

Product features

- Cryptographic key size and type : 4096 bit RSA
- Data encryption: TLS, Blowfish-128-CBC, AES-128-CBC, AES-256-CBC
- Comes with two-factor authentication
- VPN connection type: Layer 2 / Layer 3 (OpenVPN)

Article number	Article description
8100540	TOSIBOX SOFTKEY TBSKL1
8100541	TOSIBOX SOFTKEY TBSKL5
8100542	TOSIBOX SOFTKEY TBSKL10

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NEW

TOSIBOX® LOCK 150

Benefits

- SIMPLE - Build and manage secure IoT infrastructure in minutes
- SECURE - Tested & audited security
- MODULAR - Unlimited expandability and flexibility
- COMPATIBLE - Integrate seamlessly with legacy and future systems
- UNIQUE - Globally patented point-to-point connection

Application range

- Remote access and networking device for secure access of HMIs, PLCs, PCs and other devices or systems over the Internet.

Product features

- Patented TOSIBOX® Plug & Go™ connection method takes you out of the box and into use in less than 5 minutes, without the need for software installations, network configurations or special IT skills
- NAT and firewall friendly
- VPN throughput up to 10 MB/s, end-to-end encryption between TOSIBOX® devices
- Up to 10 concurrent VPN connections
- Reliability with TosiOnline™ - automatic re-connection of dropped connections

Product Make-up

- Cast aluminium casing
- 132 mm x 99 mm x 35.5 mm / 5.2” x 3.9” x 1.4” (L x W x H)
- Weight 593 g / 1.31 lbs (net weight article)
- Accessories in package include: RJ-45 Cat6 Ethernet cable, USB extension cable, 2 x WLAN antennas, 2 dBi, AC Adapter: Input 100 240V AC, DC input plug, DIN rail mounting bracket

Technical data

Operating temperature -20 °C to +50 °C
Storage temperature -40 °C to +70 °C

Article number	Article description
3806221	TOSIBOX® LOCK 150
8100543	TOSIBOX® LOCK 150 WITHOUT POWER SUPPLY

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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NEW

TOSIBOX® LOCK 175

Benefits

- SIMPLE - Build and manage secure OT infrastructure in minute
- SECURE - Tested & audited security
- MODULAR - Unlimited expandability and flexibility
- TIMELESS - Deals with legacy and future systems
- UNIQUE- Globally patented point-to-point connection

Application range

- Remote access and networking device for secure access of HMIs, PLCs, PCs and other devices or systems over the Internet

Product features

- High VPN throughput, end-to-end encryption between TOSIBOX® devices, users and servers
- Integrated WiFi as connectivity method or access point for wireless devices on site
- Built-in global LTE modem – no external modem needed
- TosiOnline™ automatic reconnection of dropped connections

Product features

- Built-in firewall, NAT
- Up to 10 concurrent VPN connections
- VPN throughput up to 10 Mbit/s

Product make-up

- Size : 104 mm x 28 x 110 mm / 4.09” x 1.10” x 4.33” (L x W x H)
- Weight : 305 g
- 9-35V DC
- 2 x WiFi antenna connector, RP-SMA Male
- 1 x LTE antenna connector, SMA Female
- DIN rail attachment (back)
- Maximum power consumption 10W

Technical data

Operating temperature -20 °C to +55 °C
Storage temperature -30 °C to +70 °C

Article number	Article description
8100545	TOSIBOX® LOCK 175 WITH POWER SUPPLY
8100599	TOSIBOX® LOCK 175 STARTER KIT WITH POWER SUPPLY

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CE

TOSIBOX® LOCK 500

The next generation Plug & GO™ connectivity device

Benefits

- SIMPLE - Build and manage secure IoT infrastructure in minutes
- SECURE - Tested & audited security
- MODULAR - Unlimited expandability and flexibility
- COMPATIBLE - Integrate seamlessly with legacy and future systems
- UNIQUE - Globally patented point-to-point connection

Application range

- Remote access and networking device for secure access of HMIs, PLCs, PCs and other devices or systems over the Internet.

Product features

- Massive VPN throughput for data consuming applications, end-to-end encryption between TOSIBOX® devices
- NAT and firewall friendly
- Integrated WiFi as connectivity method or access point for wireless devices on site.
- Built-in LTE modem (optional), with two modem variants covering most of the globe no external modem needed
- Up to 50 concurrent VPN connections

Product Make-up

- 110 mm x 58 mm x 127 mm / 4.33" x 2.28" x 5.0" (L x W x H)
- TBL5*: Weight 495 g / 1.09 lbs (net weight article)
- TBL5i*: Weight 505 g / 1.11 lbs (net weight article)
- Accessories in package include: RJ-45 Cat5e Ethernet cable, 2 x WiFi antennas, 2 dBi, I/O connector plug, Power connector plug. Additional accessories for TBL5*PS version: AC adapter - Input 100 240 V AC, frequency 47 63 Hz,Output 12.0 V, 1.6 A, max 19.2 W. EU, UK, AU and US power socket and DC feed cable

Technical data

IP20

Operating temperature -20°C to +60°C
Storage temperature -40°C to +70°C

Article number	Article description
3806230	TOSIBOX® LOCK 500i APAC VER WITHOUT POWER SUPPLY

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TOSIBOX® ACCESSORIES

Various accessories available to support the main Tosibox lock units

Article number	Article description
3806232	TOSIBOX CONFIGURATION SW FILE
3806233	TOSIBOX 4G MODEM EU VER
3806234	4G USB MODEM W 2 ANTENNA CONN
3806235	ADAPTOR CABLE FROM MODEM TO ANTENNA
3806236	ANTENNA EXTERNAL W 8M CABLE
3806237	ANTENNA EXTERNAL MAGNET MOUNT W 3M CABLE
3806238	ANTENNA EXTENSION CABLE 5M
3806239	ANTENNA EXTENSION CABLE 10M
3806240	1-PORT RS232 SERIAL DEVICE SERVER
3806241	ACCESSORY PACK FOR LOCK 500

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Connecting the World through Remote Data Access, Secure Monitoring and Control

LAPP's strategic partnership with Tosibox brings you a simple, affordable and scalable way to build a secure digital access infrastructure. World class security straight out of the box.

As the world's purpose-designed OT networking standard, Tosibox holds a globally patented technology for automating remote connectivity and OT networking to devices connected to the Industrial Internet of Things (IIoT)

Along with LAPP's wide network across Asia Pacific and trusted portfolio supported by UNITRONIC®, ETHERLINE®, EPIC®and HITRONIC® brands, the collaboration will accelerate the development of a new industrial infrastructure for digital ecosystems

4

EPIC®

Industrial connectors

EPIC® industrial connectors can be found everywhere in industrial machinery and plant engineering, for measuring, control and drives. EPIC® is a flexible system of housings, inserts and contacts: all extremely robust, absolutely safe and simplicity itself to assemble.

Application range

- Electronics and telecommunications
- Measurement, testing and control technology
- Industrial machinery and appliances
- Drive technology and industrial automation
- Photovoltaic plants

Solar Connectors

SOLAR CONNECTORS 1.5KV F-TYPE

Connectors suitable for the PV industry






Info

- Field-mountable and panel-mountable connectors

Benefits

- Low contact resistance for efficient power transmission (<=0.3m ohms)
- Crimp connection for field and panel mounting
- Suitable for various OLFLEX SOLAR cables

Application range

- Photovoltaic plants and solar parks

Product features

- 4mm connector system with double hook
- Inclusive of contacts

Norm references / Approvals

- UL
- TUV

Technical data

Pollution degree
2

Nominal voltage
IEC/UL 1000V/1500V

Protection rating
IP68

Temperature range
-40°C to + 90°C

Article number	
3805580	FIELD MOUNT M 4 SQ MM
3805581	FIELD MOUNT M 6 SQ MM
3805582	FIELD MOUNT M 10 SQ MM
3805583	FIELD MOUNT F 4 SQ MM
3805584	FIELD MOUNT F 6 SQ MM
3805585	FIELD MOUNT F 10 SQ MM
3805586	PANEL MOUNT M 4 SQ MM
3805587	PANEL MOUNT M 6 SQ MM
3805588	PANEL MOUNT M 10 SQ MM
3805589	PANEL MOUNT F 4 SQ MM
3805590	PANEL MOUNT F 6 SQ MM
3805591	PANEL MOUNT F 10 SQ MM
3805592	BRANCH CONNECTOR 1M2F
3805593	BRANCH CONNECTOR 1F2M
3805576	TIGHTENING TOOL
3805577	DISCONNECT OR UNLOCKING TOOL
3805578	TEST JIG TOOL
3805579	CRIMP TOOL FOR 10 SQ MM SOLAR CONNECTOR

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

NEW

SOLAR CONNECTORS 1.5KV R-TYPE

Connectors suitable for the PV industry

Benefits

- Quick and easy snap-in & outward lock types
- Combines 4 & 6 sq mm types into 1 part number, ensuring ease of selection
- Suitable for various ÖLFLEX® solar cables

Application range

- Connection between solar panels
- Connection of solar panels to combiner box or main control panel

Product features

- 4mm connector system with double hooks
- Connectors are inclusive of crimp contacts
- Field mount & panel mount versions available

Norm references / Approvals

- UL
- TUV

Technical data

Pollution degree
2, 3

Nominal voltage
1500V

Protection rating
IP68

Temperature range
-40°C to + 90°C

Article number	Description
8100571	PANEL MOUNT CONN F 4-6 SQ MM CABLE OD 8.5MM MAX
8100572	PANEL MOUNT CONN M 4-6 SQ MM CABLE OD 8.5MM MAX
8100573	PANEL MOUNT CONN F 10 SQ MM CABLE OD 8.5MM MAX
8100574	PANEL MOUNT CONN M 10 SQ MM CABLE OD 8.5MM MAX
8100575	FIELD MOUNT CONN F 4-6 SQ MM CABLE OD 4.5-7.2MM
8100576	FIELD MOUNT CONN M 4-6 SQ MM CABLE OD 4.5-7.2MM
8100577	FIELD MOUNT CONN F 10 SQ MM CABLE OD 4.5-7.2MM
8100578	FIELD MOUNT CONN M 10 SQ MM CABLE OD 4.5-7.2MM
8100579	CRIMP TOOL FOR 10 MM2 R-TYPE CONN
8100580	WRENCH TOOL FOR R-TYPE CONN
8100581	MULTI-FUNCTION TOOL FOR R-TYPE CONN
8100582	CRIMP TOOL FOR 2.5, 4 & 6 MM2 CONN

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- Photographs are not to scale and do not represent detailed images of the respective products.

SOLAR FUSE CONNECTORS

Reliable over current protection for the solar panel connections

Benefits

- Fuse is easily replaceable
- Alternative to din-rail mounted fuses combiner boxes

Application range

- Over current protection for solar panel module strings
- Suitable for use in photovoltaic plants / solar power grids, and across crystalline-silicon and thin-film construction solar panels

Norm references / Approvals

- UL Listed

Product features

- Fuse connectors support PV fuse rating of 2-20A
- Fuse cable assembly is an overmold type with in-line fuse design rated to 30A

Product make-up

- Fuse connector dimensions: 160.85mm x 18.8mm
  Fuse dimensions: 85mm x 10mm
- Fuse cable assembly length: 1565mm
  Fuse dimensions: 112mm x 11.5mm
- Products are supplied with fuses

Technical data

Material
Housing Material of fuse connector: PPE
Contact Material of fuse connector: Copper alloy with Tin plated
Housing Material of fuse cable assembly: TPV

Temperature range
Operating temperature of fuse connector: -40 °C to +75 °C
Operating temperature of fuse cable: -40 °C to +75 °C

Protection rating
IP67 for the fuse connectors
IP68 for the fuse cable

Article number	Description
8100583	FUSE CONN 1KV W FUSE 15A
8100584	FUSE CONN 1.5KV W FUSE 15A
8100585	FUSE CONN 1.5KV W FUSE 20A
8100586	FUSE CONN 1.5KV W FUSE 6A
8100587	FUSE CABLE ASSY 1.5KV W FUSE 30A

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
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EPIC® rectangular connectors

Flexible, robust connectors for mechanical engineering

The connector system for mechanical and plant engineering and wherever a robust connection system is required. EPIC® Rectangular connectors are available as components. The right connector for any application can be made individually from housings, inserts and contacts.

For the housing, there are two performance classes to choose from
- EPIC® Standard is robust and there is a flexible choice of cable entries
- EPIC® ULTRA has a high corrosion protection, EMC protection as well as a stainless steel interlocking device

EPIC inserts are available in a fixed pin design and as a modular system
- EPIC® fixed pin inserts are easy to handle and come in a wide variety of designs
- EPIC® modular inserts offer flexibility with modules for data, signals, power, fibre-optics and pneumatics. This means every insert is individually tailor-made for the relevant modul configuration

EPIC® circular connectors

Compact connectors for motion control and energy transfer

Circular connections come in two designs, a signal design with gold-plated contacts for transmitting delicate signals and as high-reserve power connectors.

EPIC® SIGNAL connectors are available as M17, M23 and R3.0 (M27)
- The metal housing with an integrated EMC screen contact reliably prevents electromagnetic interferences
- Gold-plated signal contacts reliably transmit with the lowest of currents and voltages

EPIC® POWER connectors are available as M12, M17, LS1 (M23), LS1.5 (M40) and LS3 (M58)
- The integrated EMC cable glands offer strain relief and are perfectly sealed
- High-quality sealing materials for good chemical protection

EPIC® POWERLOCK
- Perfect for transmitting very high currents
- Colour coded and geometrically coded in order to prevent incorrect connections

EPIC® SOLAR 4PLUS

Long-life PV connector for photovoltaic systems

- 1,500V system voltage for modern photovoltaic plants with huge power
- Crimp connection from 2.5 mm^2 up to 10 mm^2 for reliable and durable field mounting
- Reliable connection, only possible to unlock with a tool, according NEC standard
- TUEV certified according IEC 62852: Connectors for DC-application in photovoltaic systems

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

5

SKINTOP®

Cable glands

Simply feed in the cable and twist. That's it. Our SKINTOP® cable glands provide secure connections in no time. The universal systems are simple but effective. They secure and centre the cable, hermetically seal it and guarantee optimum strain relief.

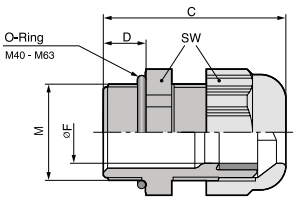
Application range

- Industrial machinery and plant engineering
- Drive systems
- Measurement and control technology
- Renewable energies
- Wherever cables need to be fastened securely and quickly

Single Entry Glands

SKINTOP® ST-M Gland & Nut Combi Pack

SKINTOP® ST-M, increased oil-resistant plastic cable gland with variable clamping ranges, permanent vibration protection, for offshore platforms.



Info

- Refer to SKINTOP® metric accessories for suitable accessories
- Now with IP69 approval! Proven to withstand the most demanding cleaning procedures for industrial machinery with high-pressure cleaners and hot water!

Benefits

- High oil-resistance for maximum reliability
- Permanent vibration protection
- Wide, variable clamping ranges
- Optimum strain relief
- Various accessories (e.g. multiple sealing inserts)

Application range

- Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
- Machine and equipment manufacturing
- Photovoltaic
- Automation technology
- Offshore platforms, equipment and shipyards

Norm references / Approvals

- UL File Nr. E79903
- GGVS: TÜ.EGG.020-95

Product Make-up

- Metric connection thread acc. to DIN EN 60423
- Basis for technical information DIN IEC 62444

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Light grey (RAL 7035)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Fixed: -40°C to +100°C
Dynamic: -20°C to +100°C

Protection rating
IP 66
IP 68 - 5 bar
IP 69
NEMA Type 1, 12

Caution
Refer to Appendix T21 for the installation dimensions and torques
Size M 40 x 1,5 up to M 63 x 1,5 with O-ring

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® ST-M COMBI PACK							
53110068	SKINTOP ST-M 12 X 1,5 + LOCKNUT SGY	silver grey	3.5 - 7	15	30.0	8	10
53110069	SKINTOP ST-M 16 X 1,5 + LOCKNUT SGY	silver grey	4.5 - 10	19	34.0	8	10
53110070	SKINTOP ST-M 20 X 1,5 + LOCKNUT SGY	silver grey	7 - 13	25	37.0	9	10
53110071	SKINTOP ST-M 25 X 1,5 + LOCKNUT SGY	silver grey	10 - 17	30	40.0	10	10
53110072	SKINTOP ST-M 32 X 1,5 + LOCKNUT SGY	silver grey	11 - 21	36	47.0	10	5
53110073	SKINTOP ST-M 40 X 1,5 + LOCKNUT SGY	silver grey	19 - 28	46	52.0	10	5
3806006	SKINTOP ST-M 50 X 1,5 + LOCKNUT SGY	silver grey	27 - 35	55	62.0	12	1
3806007	SKINTOP ST-M 63 X 1,5 + LOCKNUT SGY	silver grey	34 - 45	66	71.0	12	1
3806008	SKINTOP ST-M 12 X 1,5 + LOCKNUT BK	black	3.5 - 7	15	30.0	8	10
3806009	SKINTOP ST-M 16 X 1,5 + LOCKNUT BK	black	4.5 - 10	19	34.0	8	10
3806010	SKINTOP ST-M 20 X 1,5 + LOCKNUT BK	black	7 - 13	25	37.0	9	10
3806011	SKINTOP ST-M 25 X 1,5 + LOCKNUT BK	black	10 - 17	30	40.0	10	10
3806012	SKINTOP ST-M 32 X 1,5 + LOCKNUT BK	black	11 - 21	36	47.0	10	5
3806013	SKINTOP ST-M 40 X 1,5 + LOCKNUT BK	black	19 - 28	46	52.0	10	5
3806014	SKINTOP ST-M 50 X 1,5 + LOCKNUT BK	black	27 - 35	55	62.0	12	1
3806015	SKINTOP ST-M 63 X 1,5 + LOCKNUT BK	black	34 - 45	66	71.0	12	1
3806016	SKINTOP ST-M 12 X 1,5 + LOCKNUT LGY	light grey	3.5 - 7	15	30.0	8	10
3806017	SKINTOP ST-M 16 X1,5 + LOCKNUT LGY	light grey	4.5 - 10	19	34.0	8	10
3806018	SKINTOP ST-M 20 X 1,5 + LOCKNUT LGY	light grey	7 - 13	25	37.0	9	10
3806019	SKINTOP ST-M 25 X 1,5 + LOCKNUT LGY	light grey	10 - 17	30	40.0	10	10
3806020	SKINTOP ST-M 32 X 1,5 + LOCKNUT LGY	light grey	11 - 21	36	47.0	10	5
3806021	SKINTOP ST-M 40 X 1,5 + LOCKNUT LGY	light grey	19 - 28	46	52.0	10	5
3806022	SKINTOP ST-M 50 X 1,5 + LOCKNUT LGY	light grey	27 - 35	55	62.0	12	1
3806023	SKINTOP ST-M 63 X 1,5 + LOCKNUT LGY	light grey	34 - 45	66	71.0	12	1

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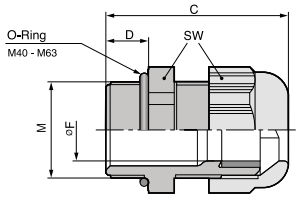
SKINTOP® ST Gland & Nut Combi Pack

SKINTOP® ST, increased oil-resistant polyamide cable gland with variable clamping ranges, permanent vibration protection and strain relief

- Refer to SKINTOP® metric accessories for suitable accessories
- Counter nut to be used: SKINTOP® GMP-GL



Benefits

- High oil-resistance for maximum reliability
- Permanent vibration protection
- Wide, variable clamping ranges
- Optimum strain relief
- Various accessories (e.g. multiple sealing inserts)

Application range

- Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
- Machine and equipment manufacturing
- Photovoltaic
- Automation technology

Norm references / Approvals

- UL File Nr. E79903

Product Make-up

- PG connection thread acc. to DIN 40430

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Light grey (RAL 7035)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Fixed: -40°C to +100°C
Dynamic: -20°C to +80°C

Protection rating
IP 68 - 5 bar

Caution
Refer to Appendix T21 for the installation dimensions and torques

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® ST PG COMBI PACK							
53110080	SKINTOP ST PG 7 + LOCKNUT SGY	silver grey	2.5 - 6.5	15	32	8	10
53110081	SKINTOP ST PG 9 + LOCKNUT SGY	silver grey	3.5 - 8	19	36	8	10
53110082	SKINTOP ST PG 11 + LOCKNUT SGY	silver grey	4 - 10	22	38	8	10
53110083	SKINTOP ST PG 13,5 + LOCKNUT SGY	silver grey	6 - 12	24	41	9	10
53110084	SKINTOP ST PG 16 + LOCKNUT SGY	silver grey	9 - 14	27	44	10	10
53110085	SKINTOP ST PG 21 + LOCKNUT SGY	silver grey	13 - 18	33	49	11	5
53110086	SKINTOP ST PG 29 + LOCKNUT SGY	silver grey	14 - 25	42	56	11	5
53110087	SKINTOP ST PG 36 + LOCKNUT SGY	silver grey	24 - 32	53	66	13	5
3806071	SKINTOP ST PG 42 + LOCKNUT SGY	silver grey	35 - 38	60	68	13	1
3806072	SKINTOP ST PG 48 + LOCKNUT SGY	silver grey	39 - 44	65	69	14	1
3806073	SKINTOP ST PG 7 + LOCKNUT BK	black	2.5 - 6.5	15	32	8	10
3806074	SKINTOP ST PG 9 + LOCKNUT BK	black	3.5 - 8	19	36	8	10
3806075	SKINTOP ST PG 11 + LOCKNUT BK	black	4 - 10	22	38	8	10
3806076	SKINTOP ST PG 13,5 + LOCKNUT BK	black	6 - 12	24	41	9	10
3806077	SKINTOP ST PG 16 + LOCKNUT BK	black	9 - 14	27	44	10	10
3806078	SKINTOP ST PG 21 + LOCKNUT BK	black	13 - 18	33	49	11	5
3806079	SKINTOP ST PG 29 + LOCKNUT BK	black	14 - 25	42	56	11	5
3806080	SKINTOP ST PG 36 + LOCKNUT BK	black	24 - 32	53	66	13	5
3806081	SKINTOP ST PG 42 + LOCKNUT BK	black	35 - 38	60	68	13	1
3806082	SKINTOP ST PG 48 + LOCKNUT BK	black	39 - 44	65	69	14	1
3806083	SKINTOP ST PG 7 + LOCKNUT LGY	light grey	2.5 - 6.5	15	32	8	10
3806084	SKINTOP ST PG 9 + LOCKNUT LGY	light grey	3.5 - 8	19	36	8	10
3806085	SKINTOP ST PG 11 + LOCKNUT LGY	light grey	4 - 10	22	38	8	10
3806086	SKINTOP ST PG 13,5 + LOCKNUT LGY	light grey	6 - 12	24	41	9	10
3806087	SKINTOP ST PG 16 + LOCKNUT LGY	light grey	9 - 14	27	44	10	10
3806088	SKINTOP ST PG 21 + LOCKNUT LGY	light grey	13 - 18	33	49	11	5
3806089	SKINTOP ST PG 29 + LOCKNUT LGY	light grey	14 - 25	42	56	11	5
3806090	SKINTOP ST PG 36 + LOCKNUT LGY	light grey	24 - 32	53	66	13	5
3806091	SKINTOP ST PG 42 + LOCKNUT LGY	light grey	35 - 38	60	68	13	1
3806092	SKINTOP ST PG 48 + LOCKNUT LGY	light grey	39 - 44	65	69	14	1

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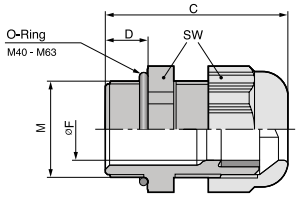
SKINTOP® STR-M Gland & Nut Combi Pack

SKINTOP® STR-M, increased oil-resistant plastic cable gland
with permanent vibration protection and reducing seal insert



Info

- Now with IP69 approval! Proven to withstand the most demanding cleaning procedures for industrial machinery with high-pressure cleaners and hot water!

Benefits

- High oil-resistance for maximum reliability
- Permanent vibration protection
- Wide, variable clamping ranges
- Optimum strain relief
- Various accessories (e.g. multiple sealing inserts)

Application range

- With reducing seal insert, to seal cables with smaller outer diameters

Norm references / Approvals

- UL File Nr. E79903
- GGVS: TÜ.EGG.020-95

Product Make-up

- Metric connection thread acc. to DIN EN 60423
- Basis for technical information DIN IEC 62444

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Light grey (RAL 7035)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Fixed: -40°C to +100°C
Dynamic: -20°C to +100°C

Protection rating
IP 66
IP 68 - 5 bar
IP 69
NEMA Type 1, 12

Caution
Refer to Appendix T21 for the installation dimensions and torques
Size M 40 x 1,5 up to M 63 x 1,5 with O-ring

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® STR-M COMBI PACK							
3806024	SKINTOP STR-M 12 X 1,5 + LOCKNUT SGY	silver grey	2 - 5	15	30.0	8	10
3806025	SKINTOP STR-M 16 X 1,5 + LOCKNUT SGY	silver grey	3.5 - 7	19	34.0	8	10
3806026	SKINTOP STR-M 20 X 1,5 + LOCKNUT SGY	silver grey	4 - 10	25	37.0	9	10
3806027	SKINTOP STR-M 25 X 1,5 + LOCKNUT SGY	silver grey	5 - 13	30	40.0	10	10
3806028	SKINTOP STR-M 32 X 1,5 + LOCKNUT SGY	silver grey	6 - 15	36	47.0	10	5
3806029	SKINTOP STR-M 40 X 1,5 + LOCKNUT SGY	silver grey	9 - 23	46	52.0	10	5
3806030	SKINTOP STR-M 50 X 1,5 + LOCKNUT SGY	silver grey	24 - 29	55	62.0	12	1
3806031	SKINTOP STR-M 63 X 1,5 + LOCKNUT SGY	silver grey	28 - 39	66	71.0	12	1
3806032	SKINTOP STR-M 12 X 1,5 + LOCKNUT BK	black	2 - 5	15	30.0	8	10
3806033	SKINTOP STR-M 16 X 1,5 + LOCKNUT BK	black	3.5 - 7	19	34.0	8	10
3806034	SKINTOP STR-M 20 X 1,5 + LOCKNUT BK	black	4 - 10	25	37.0	9	10
3806035	SKINTOP STR-M 25 X 1,5 + LOCKNUT BK	black	5 - 13	30	40.0	10	10
3806036	SKINTOP STR-M 32 X 1,5 + LOCKNUT BK	black	6 - 15	36	47.0	10	5
3806037	SKINTOP STR-M 40 X 1,5 + LOCKNUT BK	black	9 - 23	46	52.0	10	5
3806038	SKINTOP STR-M 50 X 1,5 + LOCKNUT BK	black	24 - 29	55	62.0	12	1
3806039	SKINTOP STR-M 63 X 1,5 + LOCKNUT BK	black	28 - 39	66	71.0	12	1
3806040	SKINTOP STR-M 12 X 1,5 + LOCKNUT LGY	light grey	2 - 5	15	30.0	8	10
3806041	SKINTOP STR-M 16 X 1,5 + LOCKNUT LGY	light grey	3.5 - 7	19	34.0	8	10
3806042	SKINTOP STR-M 20 X 1,5 + LOCKNUT LGY	light grey	4 - 10	25	37.0	9	10
3806043	SKINTOP STR-M 25 X 1,5 + LOCKNUT LGY	light grey	5 - 13	30	40.0	10	10
3806044	SKINTOP STR-M 32 X 1,5 + LOCKNUT LGY	light grey	6 - 15	36	47.0	10	5
3806045	SKINTOP STR-M 40 X 1,5 + LOCKNUT LGY	light grey	9 - 23	46	52.0	10	5
3806046	SKINTOP STR-M 50 X 1,5 + LOCKNUT LGY	light grey	24 - 29	55	62.0	12	1
3806047	SKINTOP STR-M 63 X 1,5 + LOCKNUT LGY	light grey	28 - 39	66	71.0	12	1

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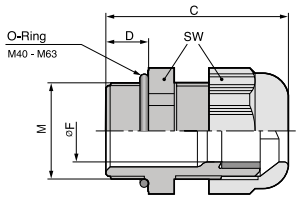
SKINTOP® STR Gland & Nut Combi Pack

SKINTOP® STR, increased oil-resistant polyamide cable gland with wide, variable clamping ranges and reducing seal insert



Benefits

- High oil-resistance for maximum reliability
- Permanent vibration protection
- Wide, variable clamping ranges
- Optimum strain relief
- Various accessories (e.g. multiple sealing inserts)

Application range

- With reducing seal insert, to seal cables with smaller outer diameters

Norm references / Approvals

- UL File Nr. E79903

Product Make-up

- PG connection thread acc. to DIN 40430

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Light grey (RAL 7035)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Fixed: -40°C to +100°C
Dynamic: -20°C to +80°C

Protection rating
IP 68 - 5 bar
NEMA Type 1, 12

Caution
Refer to Appendix T21 for the installation dimensions and torques

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® STR PG COMBI PACK							
3806093	SKINTOP STR PG 7 + LOCKNUT SGY	silver grey	1.5 - 5	15	32	7.8	10
3806094	SKINTOP STR PG 9 + LOCKNUT SGY	silver grey	2 - 6	19	36	8	10
3806095	SKINTOP STR PG 11 + LOCKNUT SGY	silver grey	2 - 7	22	38	8	10
3806096	SKINTOP STR PG 13,5 + LOCKNUT SGY	silver grey	4 - 9	24	41	9	10
3806097	SKINTOP STR PG 16 + LOCKNUT SGY	silver grey	6 - 12	27	44	10	10
3806098	SKINTOP STR PG 21 + LOCKNUT SGY	silver grey	9 - 16	33	49	11	5
3806099	SKINTOP STR PG 29 + LOCKNUT SGY	silver grey	11 - 20	42	56	10.7	5
3806100	SKINTOP STR PG 36 + LOCKNUT SGY	silver grey	17 - 26	53	66	13.3	5
3806101	SKINTOP STR PG 42 + LOCKNUT SGY	silver grey	22 - 31	60	68	13.4	1
3806102	SKINTOP STR PG 48 + LOCKNUT SGY	silver grey	26 - 35	65	69	14.3	1
3806103	SKINTOP STR PG 7 + LOCKNUT BK	black	1.5 - 5	15	32	7.8	10
3806104	SKINTOP STR PG 9 + LOCKNUT BK	black	2 - 6	19	36	8	10
3806105	SKINTOP STR PG 11 + LOCKNUT BK	black	2 - 7	22	38	8	10
3806106	SKINTOP STR PG 13,5 + LOCKNUT BK	black	4 - 9	24	41	9	10
3806107	SKINTOP STR PG 16 + LOCKNUT BK	black	6 - 12	27	44	10	10
3806108	SKINTOP STR PG 21 + LOCKNUT BK	black	9 - 16	33	49	11	5
3806109	SKINTOP STR PG 29 + LOCKNUT BK	black	11 - 20	42	56	10.7	5
3806110	SKINTOP STR PG 36 + LOCKNUT BK	black	17 - 26	53	66	13.3	5
3806111	SKINTOP STR PG 42 + LOCKNUT BK	black	22 - 31	60	68	13.4	1
3806112	SKINTOP STR PG 48 + LOCKNUT BK	black	26 - 35	65	69	14.3	1
3806113	SKINTOP STR PG 7 + LOCKNUT LGY	light grey	1.5 - 5	15	32	7.8	10
3806114	SKINTOP STR PG 9 + LOCKNUT LGY	light grey	2 - 6	19	36	8	10
3806115	SKINTOP STR PG 11 + LOCKNUT LGY	light grey	2 - 7	22	38	8	10
3806116	SKINTOP STR PG 13,5 + LOCKNUT LGY	light grey	4 - 9	24	41	9	10
3806117	SKINTOP STR PG 16 + LOCKNUT LGY	light grey	6 - 12	27	44	10	10
3806118	SKINTOP STR PG 21 + LOCKNUT LGY	light grey	9 - 16	33	49	11	5
3806119	SKINTOP STR PG 29 + LOCKNUT LGY	light grey	11 - 20	42	56	10.7	5
3806120	SKINTOP STR PG 36 + LOCKNUT LGY	light grey	17 - 26	53	66	13.3	5
3806121	SKINTOP STR PG 42 + LOCKNUT LGY	light grey	22 - 31	60	68	13.4	1
3806122	SKINTOP STR PG 48 + LOCKNUT LGY	light grey	26 - 35	65	69	14.3	1

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SKINTOP® BS-M Gland & Nut Combi Pack

SKINTOP® BS-M, plastic cable gland with bending and anti-kink protection, to protect flexible cables, for moving machine parts

Benefits

- Reliable bending and anti-kink protection
- Cable conservation
- Functional reliability
- To protect flexible cables

Application range

- Cables for electrical appliances and machinery that are moved under normal use must be protected against excessive bending as required in accordance with VDE 0700-1
- Handheld device
- Robotics Industry
- Light and sound applications
- Moving machine parts

Norm references / Approvals

- UL File Nr. E79903

Product Make-up

- Metric connection thread acc. to DIN EN 60423
- Basis for technical information DIN IEC 62444

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Light grey (RAL 7035)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Between -20°C to +80°C

Protection rating
IP 68 - 5 bar

Caution
Refer to Appendix T21 for the installation dimensions and torques

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® BS-M COMBI PACK							
3806048	SKINTOP BS-M 12X1,5 + LOCKNUT SGY	silver grey	3.5 - 7	15	64	8	10
3806049	SKINTOP BS-M 16X1,5 + LOCKNUT SGY	silver grey	4.5 - 10	19	86	8	10
3806050	SKINTOP BS-M 20X1,5 + LOCKNUT SGY	silver grey	7 - 13	25	101	9	10
3806051	SKINTOP BS-M 25X1,5 + LOCKNUT SGY	silver grey	9 - 17	30	125	10	5
3806052	SKINTOP BS-M 32X1,5 + LOCKNUT SGY	silver grey	11 - 21	36	149	10	5
3806053	SKINTOP BS-M 12X1,5 + LOCKNUT BK	black	3.5 - 7	15	64	8	10
3806054	SKINTOP BS-M 16X1,5 + LOCKNUT BK	black	4.5 - 10	19	86	8	10
3806055	SKINTOP BS-M 20X1,5 + LOCKNUT BK	black	7 - 13	25	101	9	10
3806056	SKINTOP BS-M 25X1,5 + LOCKNUT BK	black	9 - 17	30	125	10	5
3806057	SKINTOP BS-M 32X1,5 + LOCKNUT BK	black	11 - 21	36	149	10	5
3806058	SKINTOP BS-M 12X1,5 + LOCKNUT LGY	light grey	3.5 - 7	15	64	8	10
3806059	SKINTOP BS-M 16X1,5 + LOCKNUT LGY	light grey	4.5 - 10	19	86	8	10
3806060	SKINTOP BS-M 20X1,5 + LOCKNUT LGY	light grey	7 - 13	25	101	9	10
3806061	SKINTOP BS-M 25X1,5 + LOCKNUT LGY	light grey	9 - 17	30	125	10	5
3806062	SKINTOP BS-M 32X1,5 + LOCKNUT LGY	light grey	11 - 21	36	149	10	5

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- Photographs are not to scale and do not represent detailed images of the respective products.

SKINTOP® BS Gland & Nut Combi Pack

SKINTOP® BS, polyamide cable gland with bending and anti-kink protection, to protect flexible cables, for moving machine parts

Benefits

- Reliable bending and anti-kink protection
- Cable conservation
- Functional reliability
- To protect flexible cables

Application range

- Cables for electrical appliances and machinery that are moved under normal use must be protected against excessive bending as required in accordance with VDE 0700-1
- Handheld device
- Robotics Industry
- Light and sound applications
- Moving machine parts

Norm references / Approvals

- UL File Nr. E79903

Product Make-up

- PG connection thread acc. to DIN 40430

Technical data

Classification ETIM 5
ETIM 5.0 Class-ID: EC000441
ETIM 5.0 Class-Description: Cable screw gland

Classification ETIM 6
ETIM 6.0 Class-ID: EC000441
ETIM 6.0 Class-Description: Cable screw gland

Colour delivered
Silver grey (RAL 7001)
Black (RAL 9005)

Material
Body: Polyamide
Seal: CR

Temperature range
Between -20°C to +100°C

Protection rating
IP 68 - 5 bar

Caution
Refer to Appendix T21 for the installation dimensions and torques

Article number	Description	Colour	Clamping range ØF (mm)	SW wrench size (mm)	Overall length, C (mm)	Thread length, D (mm)	Pieces/PACK
SKINTOP® BS PG COMBI PACK							
3806123	SKINTOP BS PG 7 + LOCKNUT SGY	silver grey	2.5 - 6.5	15	62	7.8	10
3806124	SKINTOP BS PG 9 + LOCKNUT SGY	silver grey	3.5 - 8	19	75	8	10
3806125	SKINTOP BS PG 11 + LOCKNUT SGY	silver grey	4 - 10	22	87	8	10
3806126	SKINTOP BS PG 13,5 + LOCKNUT SGY	silver grey	6 - 12	24	100	9	5
3806127	SKINTOP BS PG 16 + LOCKNUT SGY	silver grey	9 - 14	27	113	10	5
3806128	SKINTOP BS PG 21 + LOCKNUT SGY	silver grey	13 - 18	33	129	11	5
3806129	SKINTOP BS PG 7 + LOCKNUT BK	black	2.5 - 6.5	15	62	7.8	10
3806130	SKINTOP BS PG 9 + LOCKNUT BK	black	3.5 - 8	19	75	8	10
3806131	SKINTOP BS PG 11 + LOCKNUT BK	black	4 - 10	22	87	8	10
3806132	SKINTOP BS PG 13,5 + LOCKNUT BK	black	6 - 12	24	100	9	5
3806133	SKINTOP BS PG 16 + LOCKNUT BK	black	9 - 14	27	113	10	5
3806134	SKINTOP BS PG 21 + LOCKNUT BK	black	13 - 18	33	129	11	5

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E1FW CABLE GLAND

Suitable for Steel Wire Armoured (SWA) cables

Info

- Flameproof
- Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous Areas
- Restricted Breathing

Application range

- The CMP E1FW Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21, and Zone 22, provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14

Product features

- CMP Type E1FW Tri-Star Triple CertifiedFlameproof (Type d), Increased Safety (Type e),and Restricted Breathing (Type nR) cable gland for use in Zone 1, Zone 2, Zone 21, and Zone22 Hazardous Areas with Steel Wire Armour(SWA) cable
- Provides a Flameproof seal on the cable inner bedding
- Gas tight seal has been tested to prove compatibility with Restricted Breathing equipment
- Allows mechanical cable retention and earth continuity via the cable armour termination

Norm references / Approvals

- ATEX Certificate: CML 18ATEX1324X, CML 18ATEX4316X
- IECEx Certificate: IECEx CML 18.0181X
- EAC (Formerly GOST R, K & B): C-GB.AA87.B.00487
- INMETRO Approval: TÜV 12.0618X
- KCs Certificate: 14-GA4BO-0257X
- CCOE / PESO (India) Certificate: P444949
- CCC: 2020322313002870
- RETIE Approval: 03866
- Marine Approvals: LRS: 01/00172, DNV: E-13848, ABS: 20-LD1948801-PDA, BV: 43180/A1BV

Product Make-up

- E1FW Tri-Star Type
- BS 6121: Part 1: 1989, EN 50262: 1999

Technical data

Classification
ETIM 5.0 Class-Description: Cable screw gland
ETIM 5.0 Class-ID: EC000441

Note
Cable Type: Steel Wire Armour (SWA) Armour Clamping: Detachable armour cone and anyway universal clamping ring. Sealing Technique: CMP inner displacement and unique CMP LRS™ outer seal - Load Retention Seal Sealing Areas: Cable inner bedding and cable outer sheath. Optional Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer,Earth tag, Adaptor/Reducer

Material
Body: Brass Seal: CMP SOLO LSF Thermoplastic Elastomer

Protection rating
IP66 as standard, IP67 / IP68 available on request. Deluge Proof when fitted with optional CMP O-ring in the cable gland body joint

Temperature range
-60°C up to +130°C

Article number	Article designation / size	Metric	Cable bedding diameter (mm)	Armour range (mm)	Overall cable diameter (mm)	Approx. weight (kg)
E1FW CABLE GLAND						
3804460	20S/16	M20	3.1 - 8.7	0.9 - 1.0	6.1 - 11.5	0.2
3804461	20S	M20	6.1 - 11.7	0.9 - 1.3	9.5 - 15.9	0.2
3804462	20	M20	6.5 - 14.0	0.9 - 1.3	12.5 - 20.9	0.2
3804463	25S	M25	11.1 - 20.0	1.3 - 1.6	14.0 - 22.0	0.3
3804464	25	M25	11.1 - 20.0	1.3 - 1.6	18.2 - 26.2	0.3
3804465	32	M32	17.0 - 26.3	1.6 - 2.0	23.7 - 33.9	0.5
3804466	40	M40	22.0 - 32.2	1.6 - 2.0	27.9 - 40.4	0.7
3804467	50S	M50	29.5 - 38.2	2.0 - 2.5	35.2 - 46.7	0.7
3804468	50	M50	35.6 - 44.1	2.0 - 2.5	40.4 - 53.1	0.7
3804469	63S	M63	40.1 - 50.0	2.0 - 2.5	45.6 - 59.4	1
3804470	63	M63	47.2 - 56.0	2.0 - 2.5	54.6 - 65.9	1
3804471	75S	M75	52.8 - 62.0	2.0 - 2.5	59.0 - 72.1	2
3804472	75	M75	59.1 - 68.0	2.0 - 2.5	66.7 - 78.5	3
3804473	90	M90	66.6 - 80.0	3.2	76.2 - 90.4	4

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E1FX CABLE GLAND

Suitable for Steel Wire Armoured (SWA) cables

Info

- Flameproof
- Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous Areas
- Restricted Breathing

Application range

- The CMP E1FX Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21, and Zone 22, provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14

Product features

- CMP Type E1FX Tri-Star Triple CertifiedFlameproof (Type d), Increased Safety (Type e),and Restricted Breathing (Type nR) cable gland for use in Zone 1, Zone 2, Zone 21, and Zone22 Hazardous Areas with Steel Wire Armour(SWA) cable
- Provides a Flameproof seal on the cable inner bedding
- Gas tight seal has been tested to prove compatibility with Restricted Breathing equipment
- Allows mechanical cable retention and earth continuity via the cable armour termination

Norm references / Approvals

- ATEX Certificate: CML 18ATEX1324X, CML 18ATEX4316X
- IECEx Certificate: IECEx CML 18.0181X
- EAC: TC RU C-GB.AA87.B.00487
- INMETRO Approval: TÜV 12.0618X
- KCs Certificate: 14-GA4BO-0257X
- CCOE / PESO (India) Certificate: P444949
- CCC: 2020322313002870
- RETIE Approval: 03866
- Marine Approvals: LRS: 01/00172, DNV: TAE00000Y, ABS: 20-LD1948801-PDA, BV: 43180/A1BV

Product Make-up

- E1FX Tri-Star Type
- BS 6121: Part 1: 1989, EN 50262: 1999

Technical data

Classification
ETIM 5.0 Class-Description: Cable screw gland
ETIM 5.0 Class-ID: EC000441

Note
Cable Type: Wire Braid Armour, Screened Flexible Wire Braid (e.g. CY/SY) , Pliable Wire Armour (PWA), Steel Tape Armour (STA), Aluminium Strip Armour (ASA) , Armoured and jacketed. Armour Clamping: Detachable armour cone and anyway universal clamping ring. Sealing Technique: CMP inner displacement and unique CMP LRS™ outer seal - Load Retention Seal Sealing Areas: Cable inner bedding and cable outer sheath. Optional Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer, Earth tag, Adaptor/Reducer

Material
Body: Brass Seal: CMP SOLO LSF Thermoplastic Elastomer

Protection rating
IP66 as standard, IP67 / IP68 available on request. Deluge Proof when fitted with optional CMP O-ring in the cable gland body joint

Temperature range
-60°C up to +130°C

Article number	Article designation / size	Metric	Cable bedding diameter (mm)	Armour range (mm)	Overall cable diameter (mm)	Approx. weight (kg)
E1FX CABLE GLAND						
3804480	20S/16	M20	3.1 - 8.7	0.9 - 1.0	6.1 - 11.5	0.2
3804481	20S	M20	6.1 - 11.7	0.9 - 1.3	9.5 - 15.9	0.2
3804482	20	M20	6.5 - 14.0	0.9 - 1.3	12.5 - 20.9	0.2
3804483	25S	M25	11.1 - 20.0	1.3 - 1.6	14.0 - 22.0	0.3
3804484	25	M25	11.1 - 20.0	1.3 - 1.6	18.2 - 26.2	0.3
3804485	32	M32	17.0 - 26.3	1.6 - 2.0	23.7 - 33.9	0.5
3804486	40	M40	22.0 - 32.2	1.6 - 2.0	27.9 - 40.4	0.7
3804487	50S	M50	29.5 - 38.2	2.0 - 2.5	35.2 - 46.7	0.8
3804488	50	M50	35.6 - 44.1	2.0 - 2.5	40.4 - 53.1	0.8
3804489	63S	M63	40.1 - 50.0	2.0 - 2.5	45.6 - 59.4	1
3804490	63	M63	47.2 - 56.0	2.0 - 2.5	54.6 - 65.9	2
3804491	75S	M75	52.8 - 62.0	2.0 - 2.5	59.0 - 72.1	2
3804492	75	M75	59.1 - 68.0	2.0 - 2.5	66.7 - 78.5	3
3804493	90	M90	66.6 - 80.0	3.2	76.2 - 90.4	4

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E1FU CABLE GLAND

Suitable for Steel Wire Armoured (SWA) cables

Info

- Flameproof
- Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous Areas
- Restricted Breathing

Application range

- The CMP E1FU Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21, and Zone 22, provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14

Product features

- CMP Type E1FU Tri-Star Triple CertifiedFlameproof (Type d), Increased Safety (Type e),and Restricted Breathing (Type nR) cable gland for use in Zone 1, Zone 2, Zone 21, and Zone22 Hazardous Areas with Steel Wire Armour(SWA) cable
- Provides a Flameproof seal on the cable inner bedding
- Gas tight seal has been tested to prove compatibility with Restricted Breathing equipment
- Allows mechanical cable retention and earth continuity via the cable armour termination

Norm references / Approvals

- ATEX Certificate: CML 18ATEX1324X, CML 18ATEX4316X
- IECEx Certificate: IECEx CML 18.0181X
- EAC Certificate: TC RU C-GB.AA87.B.00487
- INMETRO Approval: TÜV 12.0618X
- KCs Certificate: 14-GA4BO-0257X
- CCC: 2020322313002870
- CCOE / PESO (India) Certificate: P444949
- RETIE Approval: 03866
- Marine Approvals: LRS: 01/00173, DNV: TAE00000Y, ABS: 20-LD1948801-PDA, BV: 43180/A1BV

Product Make-up

- E1FU Tri-Star Type
- BS 6121: Part 1: 1989, EN 50262: 1999

Technical data

Classification
ETIM 5.0 Class-Description: Cable screw gland
ETIM 5.0 Class-ID: EC000441

Note
Cable Type: Steel Wire Armour (SWA), Aluminium Wire Armour (AWA), Steel Tape Armour (STA), Wire Braid Armour, Aluminium Strip Armour (ASA) , Pliable Wire Armour (PWA) , Screened Flexible Wire Braid (e.g. CY/SY) , Armoured jacketed. Armour Clamping: Reversible armour cone and anyway universal clamping ring. Sealing Technique: CMP inner displacement and unique CMP LRS™ outer seal - Load Retention Seal Sealing Areas: Cable inner bedding and cable outer sheath. Optional Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer, Earth tag, Adaptor/Reducer

Material
Body: Brass Seal: CMP SOLO LSF Thermoplastic Elastomer

Protection rating
IP66 as standard, IP67 / IP68 available on request. Deluge Proof when fitted with optional CMP O-ring in the cable gland body joint

Temperature range
-60°C up to +130°C

Article number	Article designation / size	Metric	Cable bedding diameter (mm)	Armour range (mm)	Overall cable diameter (mm)	Approx. weight (kg)
E1FU CABLE GLAND						
3804440	20S/16	M20	3.1 - 8.7	0.9 - 1.0	6.1 - 11.5	0.2
3804441	20S	M20	6.1 - 11.7	0.9 - 1.3	9.5 - 15.9	0.2
3804442	20	M20	6.5 - 14.0	0.9 - 1.3	12.5 - 20.9	0.2
3804443	25S	M25	11.1 - 20.0	1.3 - 1.6	14.0 - 22.0	0.3
3804444	25	M25	11.1 - 20.0	1.3 - 1.6	18.2 - 26.2	0.3
3804445	32	M32	17.0 - 26.3	1.6 - 2.0	23.7 - 33.9	0.5
3804446	40	M40	22.0 - 32.2	1.6 - 2.0	27.9 - 40.4	0.7
3804447	50S	M50	29.5 - 38.2	2.0 - 2.5	35.2 - 46.7	0.8
3804448	50	M50	35.6 - 44.1	2.0 - 2.5	40.4 - 53.1	0.8
3804449	63S	M63	40.1 - 50.0	2.0 - 2.5	45.6 - 59.4	1
3804450	63	M63	47.2 - 56.0	2.0 - 2.5	54.6 - 65.9	2
3804451	75S	M75	52.8 - 62.0	2.0 - 2.5	59.0 - 72.1	2
3804452	75	M75	59.1 - 68.0	2.0 - 2.5	66.7 - 78.5	3
3804453	90	M90	66.6 - 80.0	3.2	76.2 - 90.4	4

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A2F CABLE GLAND

Suitable for unarmoured and braided cables

Info

- Type ‘d’, Type ‘e’, Type ‘nR’
- Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous Areas

Application range

- The CMP A2F Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21, and Zone 22, provided always that the prevailing code of practice for selection and installation is observed, e.g. IEC 60079-14

Product features

- CMP Type A2F Tri-Star Triple Certified Flameproof (Type d), Increased Safety (Type e), and Restricted Breathing (Type nR) cable gland for use in Zone 1,Zone 2, Zone 21, and Zone 22 Hazardous Areas
- Provides a Flameproof seal on the cable
- Gas tight seal has been tested to prove compatibility with Restricted Breathing equipment
- Allows mechanical cable retention and earth continuity via the cable armour termination

Norm references / Approvals

- ATEX Certificate: CML 18ATEX1321X, CML 18ATEX4313X
- IECEx Certificate: IECEx CML 18.0179X
- EAC Certificate: C-GB.AA87.B.00487
- INMETRO Certificate: TÜV 21.1075X
- KCs Certificate: 13_GA4BO_0748X, 13_GA4BO_0749X, 13_GA4BO_0750X, 14_GA4BO_0251X
- CCC: 2020322313002951
- CCOE / PESO (India) Certificate: P444949
- RETIE Certificate: 03866
- Marine Approvals: LRS: 01/00172 (E3), DNV: TAE00000Y, ABS: 20-LD1948801-PDA, BV: 43180/A1BV

Product Make-up

- A2F Tri-Star Type
- BS 6121: Part 1: 1989, EN 62444, IEC 62444

Technical data

Classification
ETIM 5.0 Class-Description: Cable screw gland
ETIM 5.0 Class-ID: EC000441

Note
Cable Type: Unarmoured / Braided. Sealing Technique: CMP Unique Displacement Seal Concept
Sealing Areas: Cable outer sheath. Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer, Earth tag, Adaptor/Reducer

Material
Body: Brass, Electroless Nickel Plated Brass, Stainless Steel, Aluminium
Seal: CMP SOLO LSF Thermoset Rubber

Protection rating
IP66, IP67 and IP68

Temperature range
-60°C up to +130°C

Article number	Article designation / size	Metric	Overall cable diameter (mm)	Approx. weight (kg)
A2F CABLE GLAND				
3804281	20S/16	M20	3.2 - 8.7	0.1
3804282	20S	M20	6.1 - 11.7	0.1
3804283	20	M20	6.5 - 14.0	0.7
3804284	25	M25	11.1 - 20.0	0.1
3804285	32	M32	17.0 - 26.3	0.2
3804286	40	M40	23.5 - 32.2	0.2
3804287	50S	M50	31.0 - 38.2	0.3
3804288	50	M50	35.6 - 44.1	0.3
3804289	63S	M63	41.5 - 50.0	0.4
3804290	63	M63	47.2 - 56.0	0.4
3804291	75S	M75	54.0 - 62.0	0.5
3804292	75	M75	61.1 - 68.0	0.5
3804293	90	M90	66.6 - 80.0	2
3804294	100	M100	76.0 - 91.0	2
3804295	115	M115	86.0 - 98.0	3
3804296	130	M130	97.0 - 115.0	4

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

CW CABLE GLAND

Suitable for armoured cables, SWA and AWA

Info

- Suitable for SWA and AWA cable

Application range

- CMP CW type brass indoor and outdoor cable gland for use with all types of Single Wire Armour (SWA), Aluminium Wire Armour (AWA)cable, providing an environmental seal on the cable outer sheath.

Product features

- The CMP CW range of industrial cable glands are designed and tested to BS 6121-1:1989meets our surpasses the requirements of EN 62444 and IEC 62444
- Produced from the Brass grade CuZn39Pb3(CW614N) to EN12168

Norm references / Approvals

- GOST R Certificate: POCC.GB.HA46.H00140
- Marine Approvals: LRS: 01/00171 (E1), ABS: 16-LD1472056-PDA

Product Make-up

- CW Type
- BS 6121: Part 1: 1989, EN 62444, IEC 62444

Technical data

Classification
ETIM 5.0 Class-Description: Cable screw gland
ETIM 5.0 Class-ID: EC000441

Note
Cable Type: SWA, AWA. Sealing Technique: Unique CMP 'LRS' TMOuter Seal (Load Retention Seal)
Sealing Areas: Cable outer sheath. Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer, Earth tag, Adaptor/Reducer

Material
Body: Brass, Electroless Nickel Plated Brass,Stainless Steel, Aluminium
Seal: CMP Thermoset Rubber

Protection rating
IP66

Temperature range
-60°C up to +130°C

Article number	Article designation / size	Metric	Cable bedding diameter (mm)	Armour range (mm)	Overall cable diameter (mm)	Approx. weight (kg)
CW CABLE GLAND						
3804300	20S/16	M20	8.7	0.8 - 1.3	6.1 - 11.5	0.1
3804301	20S	M20	11.7	0.8 - 1.3	9.5 - 15.9	0.1
3804302	20	M20	14.0	0.8 - 1.3	12.5 - 20.9	0.2
3804303	25S	M25	20.0	1.3 - 1.6	14.0 - 22.0	0.2
3804304	25	M25	20.0	1.3 - 1.6	18.2 - 26.2	0.2
3804305	32	M32	26.3	1.6 - 2.0	23.7 - 33.9	0.3
3804306	40	M40	32.2	1.6 - 2.0	27.9 - 40.4	0.5
3804307	50S	M50	38.2	2.0 - 2.5	35.2 - 46.7	1
3804308	50	M50	44.1	2.0 - 2.5	40.4 - 53.1	1
3804309	63S	M63	50.0	2.0 - 2.5	45.6 - 59.4	1
3804310	63	M63	56.0	2.0 - 2.5	54.6 - 65.9	1
3804311	75S	M75	62.0	2.5 - 3.0	59.0 - 72.1	2
3804312	75	M75	68.0	2.5 - 3.0	66.7 - 78.5	2
3804313	90	M90	80.0	3.2 - 4.0	76.2 - 90.4	3
3804314	100	M100	91.0	3.2 - 4.0	86.1 - 101.5	3
3804315	115	M115	98.0	3.2 - 4.0	101.5 - 110.3	5
3804316	130	M130	1158.0	3.2 - 4.0	110.2 - 123.3	6

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PX2KREX CABLE GLAND

Suitable for armoured and braided cables, SWA and SWB

Info

- Type ‘d’, Type ‘e’, Type ‘nR’
- Zone 1, Zone 2, Zone 21 and Zone 22 Hazardous Areas

Application range

- The CMP PX2KREX Tri-Star Cable Gland is suitable for use with all forms of equipment protection permitted in Zone 1, Zone 2, Zone 21, and Zone 22, provided that the prevailing code of practice for selection and installation is strictly observed, e.g. IEC 60079-14

Product features

- CMP Type PX2KREX Tri-Star Triple Certified Flameproof (Type d), Increased Safety (Type e), and Restricted Breathing (Type nR) cable gland for use in Zone 1,Zone 2, Zone 21, and Zone 22 Hazardous Areas
- Provides a Flameproof seal on the cable
- Gas tight seal has been tested to prove compatibility with Restricted Breathing equipment
- Allows mechanical cable retention and earth continuity via the cable armour termination

Norm references / Approvals

- ATEX Certificate: CML 18ATEX1325X, CML 18ATEX4317X
- IECEx Certificate: IECEx CML 18.0182X
- EAC Certificate: TC RU C-GB.AA87.B.00487
- INMETRO Certificate: TÜV 12.2073X
- CCC: 2020322313003190
- CCOE / PESO (India) Certificate: P444949
- RETIE Certificate: 03866
- Marine Approvals: LRS: 01/00172, DNV: TAE00000Y, ABS: 20-LD1948801-PDA, BV: 43180/A1BV

Product Make-up

- PX2KREX Type
- BS 6121: Part 1: 1989, EN 62444, IEC 62444

Technical data

Note
Cable Type: SWA, AWA, SWB, STA
Sealing Technique: Unique CMP “LRS”™ Outer Seal (Load Retention Seal)
Sealing Areas: Inner RapidEx Barrier Seal and Outer Sheath
Accessories: Locknut, Shroud, Entry thread sealing washer, Serrated washer, Earth tag, Adaptor/Reducer

Material
Body: Brass, Electroless Nickel Plated Brass,Stainless Steel, Aluminium
Seal: CMP SOLO LSF Thermoset Rubber / RapidEx Resin Barrier

Protection rating
IP66, IP67 and IP68

Temperature range
-60°C up to +85°C

Article number	Article designation / size	Metric	Cable bedding diameter max. (mm)	SWB wire Ø max. (mm)	SWA wire Ø max. (mm)	Overall cable diameter (mm)	Approx. weight (kg)
PX2KREX CABLE GLAND							
3804320	20S/16	M20	11.5	0.2 - 0.5	0.8 - 1.3	33.6	0.2
3804321	20S	M20	13.0	0.2 - 0.5	0.8 - 1.3	33.6	0.2
3804322	20	M20	13.0	0.2 - 0.6	0.8 - 1.3	33.6	0.2
3804323	25S	M25	18.0	0.2 - 0.6	1.3 - 1.6	41.3	0.3
3804324	25	M25	18.0	0.2 - 0.6	1.3 - 1.6	41.3	0.3
3804325	32	M32	24.0	0.2 - 0.6	1.6 - 2.0	50.6	0.5
3804326	40	M40	30.4	0.2 - 0.8	1.6 - 2.0	60.5	1
3804327	50S	M50	37.0	0.2 - 0.8	2.0 - 2.5	66.0	1
3804328	50	M50	41.4	0.3 - 0.8	2.0 - 2.5	77.0	1
3804329	63S	M63	48.5	0.3 - 0.8	2.0 - 2.5	82.5	1
3804330	63	M63	54.2	0.3 - 0.8	2.0 - 2.5	88.0	2
3804331	75S	M75	60.3	0.3 - 0.8	2.0 - 2.5	99.0	2
3804332	75	M75	64.7	0.3 - 0.8	2.5 - 3.0	110.0	3
3804333	90	M90	75.7	0.4 - 0.8	3.2 - 4.0	126.5	5
3804334	100	M100	86.0	0.4 - 0.8	3.2 - 4.0	139.7	6

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6 Tools and cable accessories

General applications

CABLE-TY Cable Ties

Multi-purpose cable ties to keep things securely fastened, in the right bundles & at the right places

Benefits

- Cable accessories that are suitable for keeping things fastened together
- Economical and easy to use
- Material has good resistance to bases, oils, greases, oil derivates and choride solvents
- Limited resistance to acids
- Black coloured cable ties are UV resistant and can be used in outdoor applications
- Must-to have item in every industry, for cable management applications

Application range

- Can be used anywhere that requires fastening or bundling items together
- Most commonly used to fasten cables & wires

Norm references / Approvals

- In acc. to UL62275
- Flammability according to UL94 V2

Product features

- Non-releaseable cable ties
- Cable ties come with one-off, self locking mechanism that works like straps to keep cables neat and tidy

Product Make-up

- Available in different lengths and sizes
- Available in packs of 100 pcs per article number

Technical data

Material
Natural colour: Polyamide 6.6 Natural
Black colour: Polyamide 6.6 + carbon black

Temperature range
Operating temperature -40 °C to +85 °C

Article number	Description	Size (in)	Loop Tensile Strength N (lb)	Min Bundle Diameter mm (in)	Max Bundle Diameter mm (in)
CABLE-TY Cable Ties					
8100610	CABLE TIE 80 x 2.5 NAT	3.2	80 (18)	1.5 (0.06)	14.0 (0.55)
8100611	CABLE TIE 100 x 2.5 NAT	4	80 (18)	1.5 (0.06)	20.5 (0.81)
8100612	CABLE TIE 160 x 2.5 NAT	6.3	80 (18)	1.5 (0.06)	39.8 (1.57)
8100613	CABLE TIE 200 x 2.5 NAT	8	80 (18)	1.5 (0.06)	52.5 (2.07)
8100614	CABLE TIE 150 x 3.6 NAT	6	180 (40)	2.0 (0.08)	36.0 (1.42)
8100615	CABLE TIE 200 x 3.6 NAT	8	180 (40)	2.0 (0.08)	52.5 (2.07)
8100616	CABLE TIE 250 x 3.6 NAT	10	180 (40)	2.0 (0.08)	68.0 (2.68)
8100617	CABLE TIE 300 x 3.6 NAT	11.8	180 (40)	2.0 (0.08)	106.0 (4.17)
8100618	CABLE TIE 200 x 4.8 NAT	8	222 (50)	3.0 (0.12)	49.5 (1.95)
8100619	CABLE TIE 250 x 4.8 NAT	10	222 (50)	3.0 (0.12)	65.0 (2.56)
8100620	CABLE TIE 300 x 4.8 NAT	11.8	222 (50)	3.0 (0.12)	81.0 (3.19)
8100621	CABLE TIE 370 x 4.8 NAT	14.5	222 (50)	3.0 (0.12)	103.5 (4.07)
8100622	CABLE TIE 400 x 4.8 NAT	15.7	222 (50)	3.0 (0.12)	113.0 (4.45)
8100623	CABLE TIE 450 x 4.8 NAT	17.7	222 (50)	3.0 (0.12)	129.0 (5.08)
8100624	CABLE TIE 300 x 7.6 NAT	11.8	550 (124)	6.0 (0.24)	82.8 (3.26)
8100625	CABLE TIE 450 x 7.6 NAT	18	550 (124)	6.0 (0.24)	130.5 (5.14)
8100626	CABLE TIE 500 x 7.6 NAT	20	550 (124)	6.0 (0.24)	146.0 (5.75)
8100627	CABLE TIE 550 x 7.6 NAT	21.6	550 (124)	6.0 (0.24)	162.5 (6.40)
8100628	CABLE TIE 710 x 8.8 NAT	28	800 (180)	7.0 (0.28)	195.0 (7.68)
8100629	CABLE TIE 750 x 8.8 NAT	29.5	800 (180)	7.0 (0.28)	205.0 (8.07)
8100630	CABLE TIE 920 x 8.8 NAT	36	800 (180)	7.0 (0.28)	280.0 (11.02)
8100631	CABLE TIE 1220 x 8.8 NAT	48	800 (180)	7.0 (0.28)	375.5 (14.78)

Article number	Description	Size (in)	Loop Tensile Strength N (lb)	Min Bundle Diameter mm (in)	Max Bundle Diameter mm (in)
8100632	CABLE TIE 80 x 2.5 BK	3.2	80 (18)	1.5 (0.06)	14.0 (0.55)
8100633	CABLE TIE 100 x 2.5 BK	4	80 (18)	1.5 (0.06)	20.5 (0.81)
8100634	CABLE TIE 160 x 2.5 BK	6.3	80 (18)	1.5 (0.06)	39.8 (1.57)
8100635	CABLE TIE 200 x 2.5 BK	8	80 (18)	1.5 (0.06)	52.5 (2.07)
8100636	CABLE TIE 150 x 3.6 BK	6	180 (40)	2.0 (0.08)	36.0 (1.42)
8100637	CABLE TIE 200 x 3.6 BK	8	180 (40)	2.0 (0.08)	52.5 (2.07)
8100638	CABLE TIE 250 x 3.6 BK	10	180 (40)	2.0 (0.08)	68.0 (2.68)
8100639	CABLE TIE 300 x 3.6 BK	11.8	180 (40)	2.0 (0.08)	106.0 (4.17)
8100640	CABLE TIE 200 x 4.8 BK	8	222 (50)	3.0 (0.12)	49.5 (1.95)
8100641	CABLE TIE 250 x 4.8 BK	10	222 (50)	3.0 (0.12)	65.0 (2.56)
8100642	CABLE TIE 300 x 4.8 BK	11.8	222 (50)	3.0 (0.12)	81.0 (3.19)
8100643	CABLE TIE 370 x 4.8 BK	14.5	222 (50)	3.0 (0.12)	103.5 (4.07)
8100644	CABLE TIE 400 x 4.8 BK	15.7	222 (50)	3.0 (0.12)	113.0 (4.45)
8100645	CABLE TIE 450 x 4.8 BK	17.7	222 (50)	3.0 (0.12)	129.0 (5.08)
8100646	CABLE TIE 300 x 7.6 BK	11.8	550 (124)	6.0 (0.24)	82.8 (3.26)
8100647	CABLE TIE 450 x 7.6 BK	18	550 (124)	6.0 (0.24)	130.5 (5.14)
8100648	CABLE TIE 500 x 7.6 BK	20	550 (124)	6.0 (0.24)	146.0 (5.75)
8100649	CABLE TIE 550 x 7.6 BK	21.6	550 (124)	6.0 (0.24)	162.5 (6.40)
8100650	CABLE TIE 710 x 8.8 BK	28	800 (180)	7.0 (0.28)	195.0 (7.68)
8100651	CABLE TIE 750 x 8.8 BK	29.5	800 (180)	7.0 (0.28)	205.0 (8.07)
8100652	CABLE TIE 920 x 8.8 BK	36	800 (180)	7.0 (0.28)	280.0 (11.02)
8100653	CABLE TIE 1220 x 8.8 BK	48	800 (180)	7.0 (0.28)	375.5 (14.78)

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CE

NEW

Softing CableMaster 210

Benefits

- Portable handheld tester, easy to operate
- Large LED display, easy-to-understand messages (PASS / FAIL)
- Cost-effective basic equipment for installers
- Fast verification and troubleshooting of cabling
- Test cables up to 300 m long

Application range

- Tests Ethernet cables for breaks, short circuits, swapped wires and split pairs with the push of a button
- Network Installation in Building Automation
- Industrial Automation
- Network System Integration
- Data Centers
- Telecommunication
- Anywhere that has Ethernet connections

Product features

- RJ45 Test Port
- Removable remote unit
- Large, backlit LCD display with all test information, including PASS/ FAIL indicator
- Built-in tone generator, compatible with Softing cable locators
- Support of 24 remote identifiers (Optional)
- Wiremap according to ISO11801, EN50173, TIA568

Product make-up

- Size : 120 x 67 x 28mm (L x W x H)
- Weight : 120g
- Power supply : 2 x 1.5V AAA Alkaline

Technical data

Operating temperature -10 °C to +50 °C
Storage temperature -20 °C to +60 °C

Article number	Article description
8100840	Softing CableMaster 210

- If not otherwise specified, all values relating to the product are nominal values. Other value information, such as tolerances, for example, can be obtained on request where available and released for publishing.
- Photographs are not to scale and do not represent detailed images of the respective products.

1. General

The **resistance** of the product materials in the application environment, correct product assembly and subjected load in the context of permitted limit values (technical data) have a significant impact on the safety and durability of our products. Products are not suitable for the use inside airplanes and helicopters, incl. drones or other direct air and space travel applications. Notes on product usage and technical data can primarily be found on the catalogue product pages, both in the text sections and the tables provided

Length or meter markings are four-digit number combinations that are counted consecutively and increased by 1 per meter. The counting start point is chosen freely. Meter markings are to be understood as length markings and they are only an indication/tool (e.g. for simple measurement or for the determination of the remaining length) and are not metrically registered. An accuracy of ±1% is intended. To determine the exact (residual/delivery) length, we use of course calibrated cable measuring devices. As often no calibrated measuring systems are used for the meter marking, inaccuracies in meter marking are no defect.

Cables might contain talc which as with most dusts or particulate materials can cause temporary discomfort and skin irritation due to allergic reaction.

Questions?

Contact us; we are happy to help: **lapp.apac@lapp.com**

2. Cables and wires

The applications of cables and wires are extremely diverse and thus governed by a whole range of application standards in the various standard groups (IEC, EN, NEC, ...).
One example is the international standard IEC 60204-1:2009, Electrical equipment of machines – Part 1: General requirements) with reference to the requirements of cables and wires as well as their application conditions.

In all cases, meeting these **general** specifications requires the user to perform a professional examination as to the existence of **specific** product standards with other/extended requirements that may take precedence.

In this case, support is provided by the catalogue product pages in the form of product and application standards – e. g. "Oil resistance according to VDE 0473-811" or "Railway applications:
DIN EN 50306-2". In the area of low voltage harmonised cables (e.g. H05VV5-F/ÖLFLEX® 140), DIN EN 50565-2 (VDE 0298-565-2) in table 1A provides a list of requirements and criteria that are largely applicable to other low voltage cables as well as notes on recommended applications.

In addition, the application information provided in IEC publication 62440:2008-02 Ed. 1.0 must be observed for electrical cables with nominal voltages up to 450/750 V.

A summary of the most important information on cable and wire applications contained in the aforementioned documents is provided below.

General

Conductors, cables and wires must be selected such that they are suitable for the relevant operating conditions (e. g. voltage, current, protection against electric shock, bundling of cables and wires) and external influences (e.g. ambient temperature, presence of water or corrosive materials, mechanical stress, incl. stress experienced during installation, fire risks).

Electrical voltage

The nominal voltage is the reference voltage for which cables and wires are constructed and tested. The nominal voltage of cables and wires used with AC supplies must be greater than or equal to the nominal supply voltage. More information for DC supply or operating voltage in Europe can be found in EN 50565-1 for harmonized cable types and in VDE 0298-3 for cable types without harmonization, for example.

The nominal voltage of cables and wires is expressed by the ratio U_0/U in volts, whereby:

- **U_0** is the effective voltage between a phase conductor and the earth (metal sheath/screening of the cable/surrounding medium/protective grounding conductor)
- **U** is the effective voltage between two phase conductors of a multi-core cable or a system of single core cables

For cables and wires subjected to voltages over 50 V AC or 120 V DC, the test voltage is a minimum of 2000 V AC for a duration of 5 minutes. For alternating currents with a maximum of 50 V and direct currents with a maximum of 120 V (typical values for SELV or PELV systems), the test voltage must be a minimum of 500 V AC for a duration of 5 minutes.

Conductor cross-sections with different measurement systems

IEC 60228 is an important international standard that describes cables with metric cross-sections. North America and other regions currently employ conductor cross-sections according to the AWG (American Wire Gauge) system with kcmil" used for larger cross-sections.

Flexible use – stationary use/Definitions

- **Continuous Flexing**
  Cables are in constant linear motion in automated applications. They are subjected to continuous forces applied during bending motions.
  Typical application:
  Horizontal and vertical c-tracks power chains, automated assemblies, etc.
- **Flexible/occasional flexing**
  Cables are moved randomly in a non-automated application.They are susceptible to occasional uncontrolled conditions of movement.
  Typical application:
  Flexible cable tray routings, machine tools, residential electronics, portable power equipment, etc.
- **Stationary use/fixed installation**
  Cables are installed and left in their original position. They are only moved for purposes of maintenance, repair or retrofitting.
  Typical application:
  Cable trays, conduits, wire ways installed in buildings, machines, manufacturing facilities, etc.

2. Cables and wires – continued

Transport and storage

Cables and wires that are not designated for outdoor use must be stored indoors, in dry conditions and protected from direct sunlight. If stored outside, all cable and wire ends must be sealed to prevent the ingress of water.

The ambient temperature for transport and storage must be between -25 °C and +55 °C (max. +70 °C for no longer than 24 hours).

Particularly in the lower temperature ranges, mechanical stress through vibration, shock, bending and twisting must be avoided. This is especially important for PVC-insulated cables and wires. The following guidelines apply for the maximum storage of cables and wires before use and without prior testing:

- One year if stored outdoors
- Two years if stored indoors

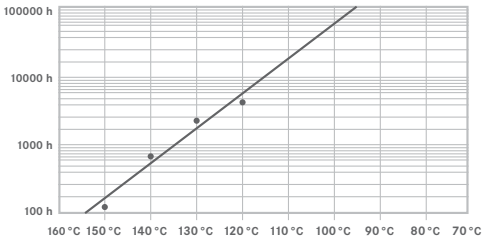
3. Cable glands and cable bushings

SKINTOP® and SKINDICHT® cable glands and cable entries represent highest quality levels and over 30-years of expertise in the relevant areas of application.

Along with quality, the correct usage of these products with regard to operational safety is the most important factor. For this reason, we would like to remind you to observe all relevant standards for your intended application. In addition to the technical data on the product pages, please also refer to the technical tables (T21 - thread dimensions for cable glands, tightening torques and T22 - protection ratings to DIN EN 60529) in our main catalogue, as well as the supplied package leaflets describing product usage (e.g. package leaflet for products acc. to DIN EN 60079-0, DIN EN 60079-7).

4. Service life

The average service life of cables is dictated not just by the mechanical and chemical stress, but also by the operating or ambient temperature. As is customary in mechanical engineering, the continuous temperature range of a cable, as specified in our technical data, refers almost exclusively to a period of at least 20,000 h. The adjacent example of an ageing curve according to Arrhenius illustrates the behaviour of an insulating material on the basis of time and temperature. The material tested here has a temperature index of approx. +110 °C at 20,000 h. The material can also be specified with an index of +135 °C, but in this case only for a duration of approx. 3000 h.



5. Connection technology

The quality of an electrical connection greatly depends on the choice of suitable components in the relevant nominal cross-sections and the use of recommended tools for processing.

Size differences between the cable and the tubular cable lug/conductor end sleeve are attributable to the fact that class 5 and 6 conductors can be pressed with just one crimp contact – even if the conductors have different structures (bunched, stranded or compressed conductors). Despite the sleeves appearing to be too large for the relevant cross-sections, the correct combination of conductor, contact and tool will ensure gas-tight crimping. The dimensional accuracy at the aforementioned connection points is governed by standards, incl.:

- DIN EN 60228 (VDE 0295), September 2005 – “Conductors for cables and insulated leads”
- DIN 46228 – 4, September 1990 – “Tubular end-sleeves with plastic sleeve”
- Crimping quality according to DIN 46228-1 and DIN EN 50027

6. Testing and inspection

The operator must ensure that the correct functioning and condition of electrical systems and equipment is checked by or under the supervision of a certified electrician. This must occur prior to initial commissioning and before reactivation following any modifications or maintenance work.

Inspection intervals must be set such that any problems that can reasonably be expected are identified in good time. In many cases, the service life of LAPP products can only be established empirically in the relevant applications. Indicators for inspection intervals can be based, for example, on the temperature load (see “Service life”) or the number of permitted alternating bending cycles for drag chains (see information on relevant product pages in the catalogue).

6. Testing and inspection – continued

As a rule, cables and wires in fixed installations will have a longer service life and will thus also be suitable for longer inspection intervals.

Shorter intervals are recommended for cables and wires used at the limit of their permitted parameters. This applies to the following in particular (see also “Technical data” and “Application” on the relevant product pages in the catalogue):

- Minimum bending radius
- Temperature range
- Presence of radiation (e.g. sunlight)
- Existence of tensile strain
- Influence of surrounding chemical substances and unverified resistance
- In the case of water accumulation or condensation in the area of the connection points. Cables and wires should be subjected to a visual inspection to identify any changes to their appearance. This should be done no later than when the cables or wires are likely to have been exposed to excessive loads (be they electrical, thermal, mechanical or chemical).

7. Copyright and updated standards

We aim to observe the copyright of the images/graphics and texts used in this catalogue, and to primarily utilise our own or licence-free images/graphics and texts.

By specifying standards and using extracts from standards, we aim to support our customers with important information on safe use of our products.

Please note that as the catalogue gets increasingly old, the specified standards/standard extracts may no longer be fully up to date.

To preserve copyright and ensure that standards are up to date, we recommend that our customers and users of this catalogue refer to the latest applicable standards from an authorised source.

PROFIBUS (UNITRONIC® BUS PB) and Industrial Ethernet cables (ETHERLINE®)

- Only use cables that have been designed for the relevant type of application (fixed installation, flexible or highly flexible application, torsional load, cable trailer systems, routing outdoors/underground). These cables have a specific design and have undergone the corresponding testing.

- Please note the electrical properties listed in the data sheet when selecting cables. Depending on the design, higher damping values can occur or a limitation of the transmission length.

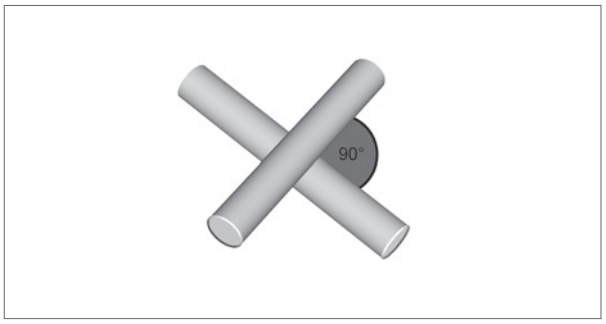
- PROFINET has the following conductor types:
  Type A: fixed installation
  Type B: flexible application, occasional flexing
  Type C: highly flexible application, torsion, drag chain, etc.

Pairs/Type	Type A	Type B	Type C
2-pair (2x2)	AWG22/1	AWG22/7	AWG22/1-19
4-pair (4x2)	min. AWG23/1	min. AWG23/1	min. AWG24/1-19

- In a system with different PROFINET categories and power cables, all of the cables should be separate bundles and run along separate ducts.

- The minimum clearances between power cables and data network cables are listed in IEC 61918. For unshielded power cables next to data network cables without separating strips or for non-metallic separating strips, the minimum clearance is 200 mm. The clearance is reduced if metallic separating strips are used. Shielded power cables can be installed directly next to bus systems. As a general rule, the greater the clearance is, the less interference there will be.

- Cables of different categories must always cross one another at an angle of 90°.



- Use the appropriate cable entries when introducing the cable into the control cabinet.
  We recommend using suitable fibre-optic cables when installing cables outdoors. Observe the relevant installation regulations.

- Always route backup cables along separate paths to ensure they remain undamaged, should damage occur to the main cable.

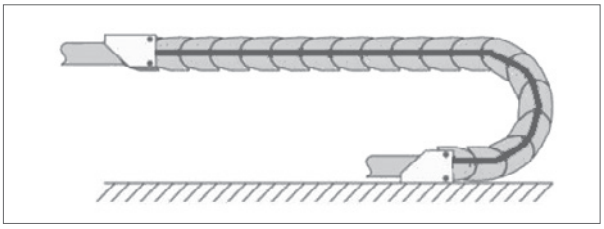
- Protect copper conductors and fibre-optic cables outside of cable carrier systems using plastic pipes or, in the case of a heavy mechanical load, using metal pipes.

- Data network cables can only be subjected to a defined tension load because otherwise the transmission characteristics could change. Replace any cables that have been mechanically overloaded or damaged.

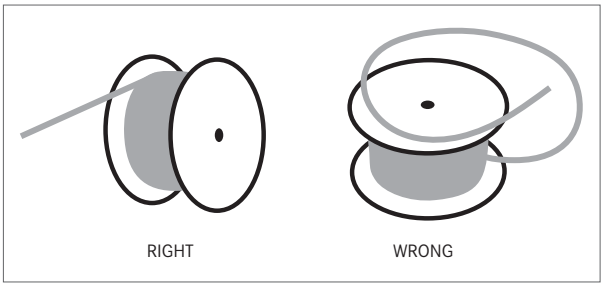
- Observe the temperature range for the cables. Deviations from these temperatures will result in a lower mechanical and electrical cable rating and will damage the cables.

- Applications involving torsion require a special cable design, as do cables for drag chains and cable trolley systems. These cables cannot be swapped.

- For drag chain cables, it is imperative that the minimum bending radius is observed, otherwise there may be cable damage or a risk of system failure.
  Make sure that cables in the bending radius run along the neutral zone, i.e. there must be no forced guidance through the chain the inner or outer radius, so that the cables can still move relative to one another and to the chain.



- The cables must be unreeled from the ring or drum free of any twists (at a tangent). Additionally, the cables should not be pulled over sharp corners and edges.



- "Electromagnetic compatibility" (EMC) is now a basic requirement to be fulfilled during installation. As such, include all metal system parts in the equipotential bonding concept and use only screened cables and connectors, or alternatively use fibre-optic cables and fibre-optic connectors that are resistant to electromagnetic interference.

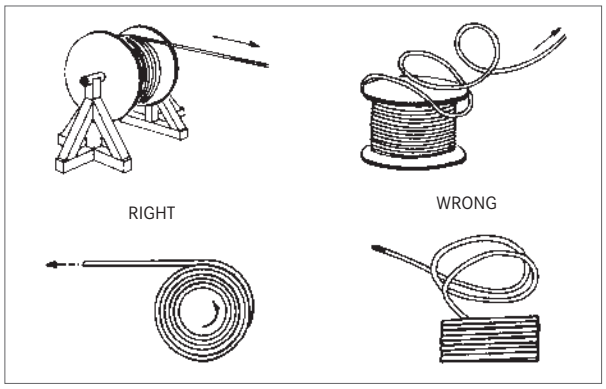
RECOMMENDATION: a detailed "Planning and Installation Guide" for PROFIBUS and/or PROFINET is available from the PROFIBUS User Organisation (PNO) in Karlsruhe, Germany.

Internet: www.profibus.com
www.profinet.com

ÖLFLEX® FD/CHAIN, UNITRONIC® FD, ETHERLINE® FD and HITRONIC® FD cables in power chains

1. Power chains must be selected in accordance with the relevant project documentation of the chain manufacturers. The bending radius must comply with the minimum bending radius of the cables. If possible, we recommend avoiding a multi-layer cable configuration, i. e. > 25 cores, and instead distributing the required quantity amongst several cables.

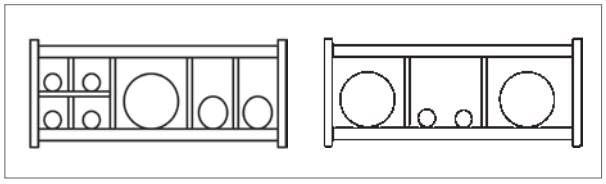
2. The cables must be unreeled from the ring or drum free of any twists (at a tangent) and must be laid out straight. This work should be carried out before starting the installation works so that the cables can relax in this time.
Due to the manufacturing process, the markings on the cable jacket run round in a gentle spiral. Therefore this cannot be used to ensure that the cables have been straightened out without any twists.



3. The cable temperature should not drop below +5 °C at any point during installation.

4. The cables also need to be installed without any twisting when inserted into the chambers. If a cable is twisted during installation, it can lead to premature damage to the core stranding. This effect can be reinforced during operation and result in so-called cork-screwing. This leads to core breaks, which ultimately cause malfunctions.

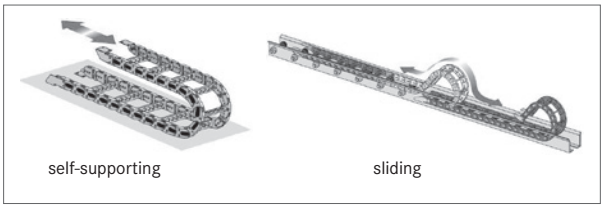
5. The cables must lie loosely next to each other in the chain chambers. They should be separated as much as possible using separators. The clearance between the cables and the cross bar, the separators or the neighbouring cables should be at least 10% of the cable diameter.



6. The cables should be installed symmetrically in terms of their weight and size; those with greater diameters and weights on the outside, those with smaller diameters and weights on the inside. They can also be placed in descending size order from inside to outside. Avoid arranging the cables above one another without the use of a shelf.

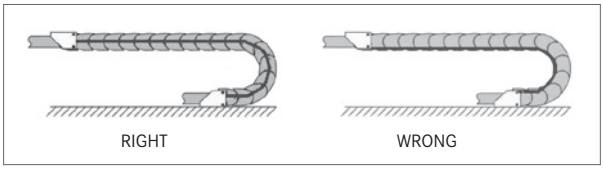
7. If the chain configurations are suspended vertically, additional free space must be provided in terms of the stay height, as the cables are lengthened during operation. After a short period of operation time, it is important to check whether the cables are still running along the neutral zone. It may be necessary to readjust them.

8. With self-supporting chain configurations, a cable is fastened both to the moving point and to the fixed point. Suitable cable supports of the chain manufacturer should be used here. With high accelerations, cable ties only have limited suitability. Avoid tying multiple cables together. The cables must not be secured or in any way bound together in the moving part of the chain. The clearance between the fixed point and the bending movements should be sufficiently wide.



9. With sliding chains, we recommend that the cable only be fastened to the moving point. A small cable reserve should be factored in at the fixed point.
(Note the assembly instructions of the chain manufacturer).

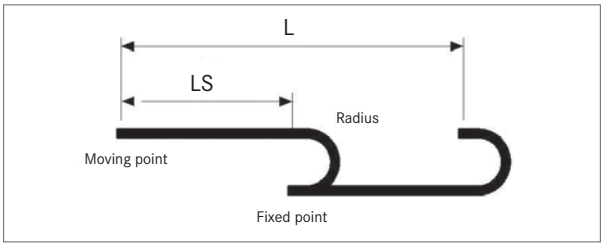
10. Make sure that the cables in the bending radius run in the neutral zone, i. e. there must be no forced guidance through the chain in the inner or outer radius, so that the cables can still move relative to one another and to the chain.



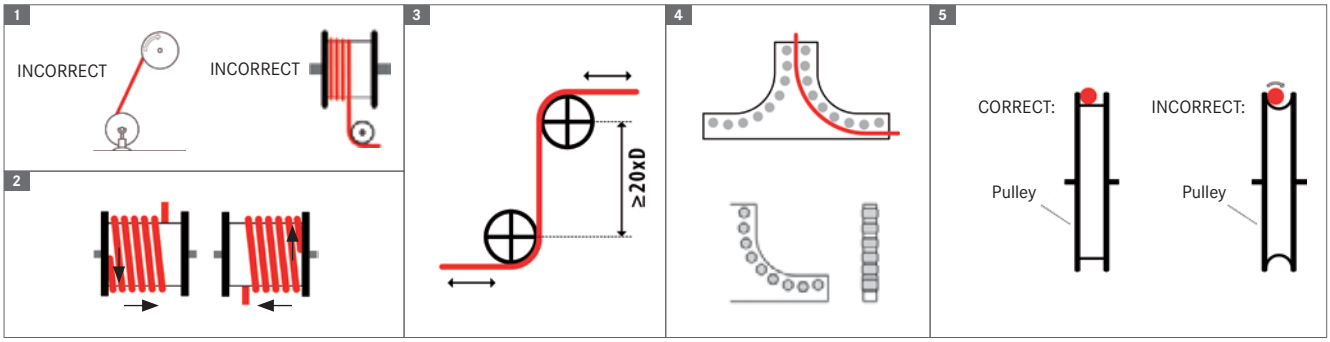
11. If a cable does not run smoothly, i.e. if it becomes twisted along the longitudinal axis during operation, the cable should be rotated gradually at one of the fastening points until it runs smoothly again.

12. The length-changing characteristics of a cable and a chain differ considerably from one another in terms of their absolute sizes. In the first few hours of operation, cables undergo natural lengthening. With chains, it takes many hours of operation for this effect to take place. This oppositional behaviour should be addressed by regularly checking the installation position of the cables. We recommend carrying out the inspections regularly, every three months, in the first year of operation – after they should be carried out whenever a maintenance interval is due. This involves checking that the cables in the bending radius can move completely freely.
It may be necessary to make readjustments.
We recommend incorporating the maintenance instructions into the inspection plan of the system.

13. The travel distance (L) results from 2 x chain length (LS)



ÖLFLEX® CRANE NSHTÖU, ÖLFLEX® CRANE VS (N)SHTÖU and ÖLFLEX® CRANE PUR



1. The delivery drum must be transported as close as possible to the installation location. Avoid rolling the cable drum unnecessarily. If it is not possible to transport the drum directly to the system, we recommend unreeling the cable from the drum using guide pulleys. A drag rope and a cable grip should also be used.

2. The cable can only be unreeled using cable stands or unwinders and only from above. When doing so, the cable must also be stretched out straight, and must not be deflected or pulled over any sharp edges. The cable temperature should not fall below +5 °C during this process (LAPP's recommendation).

3. The entire length of cable must be laid out prior to installation. Avoid rewinding the cable from the delivery drum directly onto the unit drum. When laying the cable, avoid "S"-shaped bends or other similar deflections. The cable must be free of twists when wound on the unit drum. Likewise, it must be possible to connect and fasten the cable to the feed-in point without any twisting (fig. 1).

4. The core layer structure of windable ÖLFLEX® CRANE cables has an "S"-shaped core stranding design. We therefore strongly recommend that you ensure the first layer of the cable is wound onto the drum in the correct direction, depending on the feed-in position of the cable alongside the drum body, as shown in the figure 2. Otherwise the cores could become damaged.

5. If a feed-in point is passed over during operation, a pulling protection drum with the correct diameter should be used underneath the travel path. At least 1-2 cable windings should be placed on this drum in order to evenly distribute the tensile forces. A deflection funnel with a defined radius should be applied above the drum.

6. To fasten the cable to the feed-in point, it is absolutely necessary to use sufficiently large clamps or cable support grips in order to ensure cable-friendly strain relief. The clearance between the fastening and the drum should be at least 40 x D.

7. With a fully unreeled cable, at least 2 cable windings should remain on the unit drum to provide strain relief.

8. The bending diameter for ÖLFLEX® CRANE NSHTÖU, on cables with an outer diameter of up to 21.5 mm, must not be less than 10 times the cable diameter, and 12.5 times for cables with larger outer diameters.
With ÖLFLEX® CRANE VS (N)SHTÖU and ÖLFLEX® CRANE PUR, the bending diameter must be at least 15 times greater than the cable diameter. The relevant minimum bending radius is listed both on the corresponding catalogue page and the product data sheet.

9. "S"-shaped bends in the cable should be avoided during operation. However, if this is not possible, the space between the deflection pulley axes must be at least 20 times the cable diameter for cables with an outer diameter of less than 21.5 mm, and at least 25 times for cables with larger outer diameters.
Cables which are suitable for this application are listed in selection table A3-2 (fig. 3).

10. For the installation and operation of the cables ÖLFLEX® CRANE VS (N)SHTÖU and ÖLFLEX® CRANE PUR, the maximum tension load of the cable should be observed for each dimension based on the integrated supporting elements (see product page in catalogue). For cables with large outer diameters (approximately 21.5 mm and above), we recommend using guide pulleys to minimise friction on the outer sheath when changing direction (fig. 4).

11. In order to prevent the cable from twisting, the inner contact surface of the pulley must not have a concave shape. To ensure that the cable runs smoothly, the inner width of the guiding groove must be at least 10% greater than the outer diameter of the cable (fig. 5).

12. These cables fulfil the requirements stipulated by VDE 0250 and VDE 0298-3 (use/installation). Any loads exceeding those specified will reduce the service life of the cable.

VDE 0293-308/HD 308 S2
Core ID code for colour-coded low-voltage cables

For marking cores in multi- and several-core cables for use in electrical systems and distribution systems.
For the supply of permanently secured or portable supplies and for portable equipment cables. 3a and 4a: only suitable for specific applications.

Number of cores	Cables with protective conductor (code J or G)	Cables without protective conductor (code O or X)	Cables with concentric conductor
2	–	BU/BN	BU/BN
3	GNYE/BN/BU	BN/BK/GY	BN/BK/GY
3a	–	BU/BN/BK	BU/BN/BK
4	GNYE/BN/BK/GY	BU/BN/BK/GY	BU/BN/BK/GY
4a	GNYE/BU/BN/BK	–	–
5	GNYE/BU/BN/BK/GY	BU/BN/BK/GY/BK	BU/BN/BK/GY/BK
6 and above	GNYE/BK with printed numbers	BK with printed numbers	BK with printed numbers

Colour code for power cables as per VDE 0293 (old) – (colour codes are listed in IEC 60757)

For marking cores in multi- and several-core cables for connecting portable power consumers.

Number of cores	Cables with green/yellow core (currently not yet harmonised)	Cables without green/yellow core (currently not yet harmonised)	Cables with concentric conductor
2	–	BU/BN	–
3	GNYE/BN/BU	BU/BN/BK	–
3	–	BU/BN/BK	–
4	GNYE/BK/BU/BN	BU/BN/BK/GY	–
5	GNYE/BK/BU/BN/BK	BU/BN/BK/GY/BK	–
6 and above	GNYE/further cores in BK with printed numbers, starting from the inside with 1, GNYE in the outer layer	BK with printed numbers	–

For marking cores in multi- and several-core cables and in multi-core cables for fixed installation.

Number of cores	Cables with green/yellow core (code -J-)	Cables without green/yellow core (code -O-)	Cables with concentric conductor
2	–	BK/BU	BK/BU
3	GNYE/BK/BU	BN/BU/BK	BK/BU/BN
3	–	BN/BK/BU	–
4	GNYE/BK/BU/BN	BK/BN/BU/BK	BK/BU/BN/BK
5	GNYE/BK/BU/BN/BK	BK/BN/BU/BK/BK	–
6 and above	GNYE/further cores in BK with printed numbers, starting from the inside with 1, GNYE in the outer layer	Cores in BK with printed numbers, starting from the inside with 1	Cores in BK with printed numbers, starting from the inside with 1

DIN 47100/January 1988 – colour code for UNITRONIC® twisted pair

Each pair has an a-core and a b-core. The marking is repeated for the first time as from 23 pairs, and for the second time as from 45 pairs.
The first colour is always the basic colour of the core, and the second colour is printed in rings.

Pair no.	Colour of a-core	Colour of b-core	Pair no.	Colour of a-core	Colour of b-core
1	white	brown	13	white/black	brown/black
2	green	yellow	14	grey/green	yellow/grey
3	grey	pink	15	pink/green	yellow/pink
4	blue	red	16	green/blue	yellow/blue
5	black	violet	17	green/red	yellow/red
6	grey/pink	red/blue	18	green/black	yellow/black
7	white/green	brown/green	19	grey/blue	pink/blue
8	white/yellow	yellow/brown	20	grey/red	pink/red
9	white/grey	grey/brown	21	grey/black	pink/black
10	white/pink	pink/brown	22	blue/black	red/black
11	white/blue	brown/blue	23-44	see 1 – 22	see 1 – 22
12	white/red	brown/red	45-66	see 1 – 22	see 1 – 22

DIN 47100 colour code
(but differs from DIN as the colours are not repeated after the 44th core)

Exception: 4-core line, which has a sequence of white, yellow, brown, green.

Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour
1	white	14	brown/green	27	grey/green	40	pink/red	53	white/grey/black
2	brown	15	white/yellow	28	yellow/grey	41	grey/black	54	grey/brown/black
3	green	16	yellow/brown	29	pink/green	42	pink/black	55	white/pink/black
4	yellow	17	white/grey	30	yellow/pink	43	blue/black	56	pink/brown/black
5	grey	18	grey/brown	31	green/blue	44	red/black	57	white/blue/black
6	pink	19	white/pink	32	yellow/blue	45	white/brown/black	58	brown/blue/black
7	blue	20	pink/brown	33	green/red	46	yellow/green/black	59	white/red/black
8	red	21	white/blue	34	yellow/red	47	grey/pink/black	60	brown/red/black
9	black	22	brown/blue	35	green/black	48	red/blue/black	61	black/white
10	violet	23	white/red	36	yellow/black	49	white/green/black		
11	grey/pink	24	brown/red	37	grey/blue	50	brown/green/black		
12	red/blue	25	white/black	38	pink/blue	51	white/yellow/black		
13	white/green	26	brown/black	39	grey/red	52	yellow/brown/black		

Colour code for UNITRONIC® 300 & 300 S (20 – 16 AWG)

Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour
1	black	11	pink	21	white/brown	31	white/black/grey	41	white/green/red
2	red	12	light brown	22	white/orange	32	white/black/violet	42	white/green/green
3	white	13	red/green	23	white/grey	33	white/black/black	43	white/green/blue
4	green	14	red/yellow	24	white/violet	34	white/red/black	44	white/green/brown
5	orange	15	red/black	25	white/black/red	35	white/red/red	45	white/green/violet
6	blue	16	white/black	26	white/black/green	36	white/red/green	46	white/blue/black
7	brown	17	white/red	27	white/black/yellow	37	white/red/blue	47	white/blue/red
8	yellow	18	white/green	28	white/black/blue	38	white/red/brown	48	white/blue/green
9	violet	19	white/yellow	29	white/black/brown	39	white/red/violet	49	white/blue/blue
10	grey	20	white/blue	30	white/black/orange	40	white/green/black	50	white/blue/brown

Colour code for UNITRONIC® 300 & 300 S (24 – 22 AWG)

Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour
1	black	11	white/black	21	white/black/red	31	white/brown/green	41	white/orange/yellow
2	brown	12	white/brown	22	white/black/orange	32	white/brown/blue	42	white/orange/green
3	red	13	white/red	23	white/black/yellow	33	white/brown/violet	43	white/orange/blue
4	orange	14	white/orange	24	white/black/green	34	white/brown/grey	44	white/orange/violet
5	yellow	15	white/yellow	25	white/black/blue	35	white/red/orange	45	white/orange/grey
6	green	16	white/green	26	white/black/violet	36	white/red/yellow	46	white/yellow/green
7	blue	17	white/blue	27	white/black/grey	37	white/red/green	47	white/yellow/blue
8	violet	18	white/violet	28	white/brown/red	38	white/red/blue	48	white/yellow/violet
9	grey	19	white/grey	29	white/brown/orange	39	white/red/violet	49	white/yellow/grey
10	white	20	white/black/brown	30	white/brown/yellow	40	white/red/grey	50	white/green/blue

Laying guidelines for cables and wires

Cables must be selected in accordance with the laying and operating conditions. They must be protected against mechanical, thermal and chemical effects as well against moisture penetrating through the cable ends.

Insulated power cables must not be laid underground. Temporary covering of NSSHÖU rubber-sheathed cables or trailing cables with soil, sand or a similar material, e.g. on building sites, does not constitute underground installation.

Fasteners and fixtures must not cause any damage to fixed wires and cables. Where cables or wires running horizontally along walls or ceilings are fixed using clips, the following guidelines regarding clip spacing must be observed:

For non-reinforced cables and wires, 20 x outside diameter.

These spacing guidelines also apply when laying cables in conduits and racks. When laying cables vertically, the spacing between clips can be increased depending on the type of cable or clip.

When connecting flexible cables (e. g. ÖLFLEX® cables, UNITRONIC® cables) to portable power consumers, there must be no strain or thrust at the insertion points and the cables must be secured against twisting and kinking. Outer cable sheaths must not be damaged at the insertion points or by the strain relief devices. Standardversion flexible PVC cables are not designed for outdoor use.

Special cables must be deployed for permanent underwater use.

Thermal stress

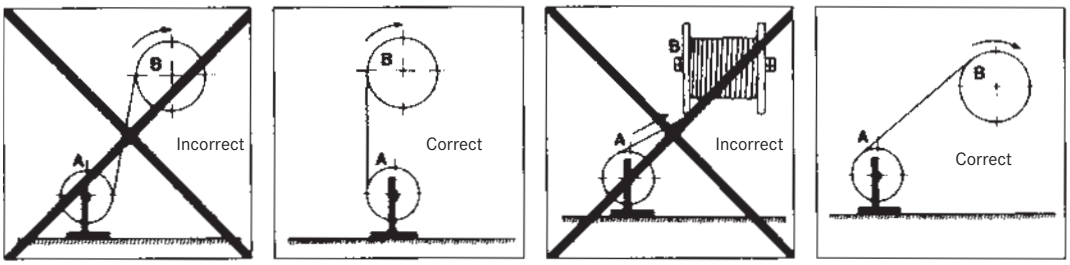
The temperature limits for the respective cable designs can be found in the technical data. The upper temperature limits must not be exceeded as a result of the cable heating up due to current heat and thermal environmental factors.
The lower temperature limits denote the lowest permitted ambient temperature.

Tensile strain

Tensile strain on the conductor should be as low as possible.
The following tensile strains for conductors must not be exceeded for cables.

- When laying and operating copper cables for portable equipment: 15 N per mm² conductor cross-section; this does not include screening, concentric conductors and divided protective conductors. In the case of cables that are subjected to dynamic stresses, e. g. in crane systems with high acceleration or power chains subject to frequent movement, appropriate measures must be taken, e.g. enlargement of the bending radius in individual cases. A shorter service life may be expected.
- Cables for static installation. When laying permanent cables, 50 N per mm² conductor cross-section.
- For fibre optic cables, BUS, LAN, industrial and Ethernet cables, the respective permitted strain must be observed. These values can be found in the product data sheets or are available on request.

For more information on this subject, see tables T3, T4 and T5.

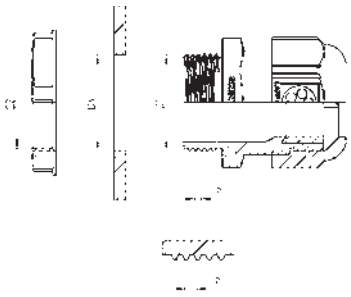


Winding and unwinding cables

Thread and hole dimensions – technical data for installation

Metric thread to EN 60423 (for screw connections to IEC 62444)

Nominal size	Ø D1	P	Ø D2	Hole Ø D3
M6 x 1	6	1	5.2	6.0 + 0.2
M8 x 1	8	1	7.1	8.0 + 0.2
M10 x 1	10	1	9.1	10.0 + 0.2
M12 x 1.5	12	1.5	10.6	12.0 + 0.2
M16 x 1.5	16	1.5	14.6	16.0 + 0.2
M20 x 1.5	20	1.5	18.6	20.0 + 0.2
M25 x 1.5	25	1.5	23.6	25.0 + 0.2
M32 x 1.5	32	1.5	30.6	32.0 + 0.3
M40 x 1.5	40	1.5	38.6	40.0 + 0.3
M50 x 1.5	50	1.5	48.6	50.0 + 0.4
M63 x 1.5	63	1.5	61.6	63.0 + 0.4
M75 x 1.5	75	1.5	73.6	75.0 + 0.5
M90 x 2	90	2	88.8	90.0 + 0.5
M110 x 2	110	2	108.8	110.0 + 0.5



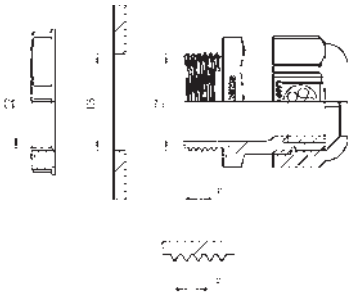
D1 = External-Ø
D2 = Core Ø internal thread
D3 = Hole Ø
P = Pitch

Metric thread to DIN 13 part 6 and 7 (for screw connections to DIN 89 280)

Nominal size	Ø D1	P	Ø D2	Hole Ø D3
M18 x 1.5	18	1.5	16.4	18.3 – 0.2
M24 x 1.5	24	1.5	22.4	24.3 – 0.2
M30 x 2	30	2	27.8	30.3 – 0.2
M36 x 2	36	2	33.8	36.3 – 0.2
M45 x 2	45	2	42.8	45.4 – 0.3
M56 x 2	56	2	53.8	56.4 – 0.3
M72 x 2	72	2	69.8	72.5 – 0.4
M80 x 2	80	2	77.8	80.5 – 0.4
M105 x 2	105	2	102.8	105.5 – 0.4

PG thread to DIN 40430

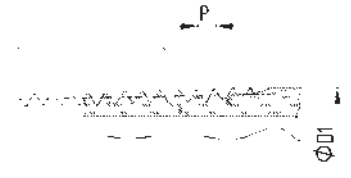
Nominal size	Ø D1	P	Ø D2	Hole Ø D3
PG 7	12.5	1.27	11.3	12.8 – 0.2
PG 9	15.2	1.41	13.9	15.5 – 0.2
PG 11	18.6	1.41	17.3	18.9 – 0.2
PG 13.5	20.4	1.41	19.1	20.7 – 0.2
PG 16	22.5	1.41	21.2	22.8 – 0.2
PG 21	28.3	1.588	26.8	28.6 – 0.2
PG 29	37.0	1.588	35.5	37.4 – 0.3
PG 36	47.0	1.588	45.5	47.4 – 0.3
PG 42	54.0	1.588	52.5	54.4 – 0.3
PG 48	59.3	1.588	57.8	59.7 – 0.3



D1 = External-Ø
D2 = Core Ø internal thread
D3 = Hole Ø
P = Pitch

NPT thread to ANSI B1.20.2

Nominal size	Ø D1	P	Hole Ø D3
NPT 1/4"	13.7	1.41	14.1 – 0.2
NPT 3/8"	17.1	1.41	17.4 – 0.2
NPT 1/2"	21.3	1.81	21.6 – 0.2
NPT 3/4"	26.7	1.81	27.0 – 0.2
NPT 1"	33.4	2.21	33.7 – 0.2
NPT 1 1/4"	42.2	2.21	42.5 – 0.2
NPT 1 1/2"	48.3	2.21	48.7 – 0.2
NPT 2"	60.3	2.21	60.7 – 0.2



D1 = External-Ø
D3 = Hole Ø
P = Pitch

Tightening torques* for SKINTOP® metric cable glands

Table of recommended tightening torques (domed cap nut, connection thread) for metric SKINTOP® glands to achieve ingress protection and category A strain relief according to IEC 62444. For more information regarding the protection rating, see the product page.

Nominal size	Tightening torque in Nm	
	Plastic	Metal
M6 x 1	-	1.5
M8 x 1	-	3
M10 x 1	-	6
M12 x 1.5	1.5	8
M16 x 1.5	3.0	10
M20 x 1.5	6.0	12
M25 x 1.5	8.0	12
M32 x 1.5	10.0	18
M40 x 1.5	13.0	18
M50 x 1.5	15.0	20
M63 x 1.5	16.0	20
M63 x 1.5 plus	-	25
M75 x 1.5	-	30
M90 x 2	-	70
M110 x 2	-	90

*NOTE: The values in the table above constitute the tightening torques for fittings and the maximum tightening torques for domed cap nuts under normal climatic conditions.
Note that lower torques must be used with different cable insulation materials; otherwise, the cable insulation may be damaged.
For ATEX screw connections, see the corresponding operating instructions for the respective tightening torques (operating instructions can be found in the delivery bag).

Tightening torques* for SKINTOP® PG cable glands

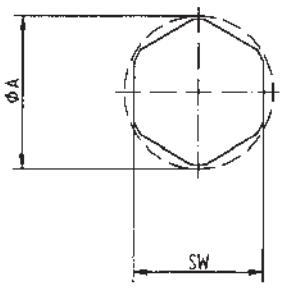
Nominal size	Tightening torques for fittings in Nm		Tightening torques for domed cap nuts in Nm	
	Plastic	Metal	Plastic	Metal
PG 7	3.0	6.25	1.7	6.25
PG 9	4.0	6.25	2.5	6.25
PG 11	4.0	6.25	2.5	6.25
PG 13.5	4.0	6.25	2.5	6.25
PG 16	6.0	7.5	3.3	7.5
PG 21	8.0	10.0	5.0	10.0
PG 29	13.0	10.0	5.0	10.0
PG 36	13.0	10.0	5.0	10.0
PG 42	13.0	10.0	5.0	10.0
PG 48	13.0	10.0	5.0	10.0

*NOTE: The values in the table above constitute the tightening torques for fittings and the maximum tightening torques for domed cap nuts under normal climatic conditions.
Note that lower torques must be used with different cable insulation materials; otherwise, the cable insulation may be damaged.
For ATEX screw connections, see the corresponding operating instructions for the respective tightening torques (operating instructions can be found in the delivery bag).

Installation dimensions and wrench sizes for cable glands

Diameter A indicates the installation space required for the relevant hexagon. This diameter corresponds to the width of the hexagon across corners plus an installation tolerance.

SW	Ø A	SW	Ø A	SW	Ø A
9	10.4	27	30.6	50	58.3
11	12.5	28	31.8	53	60.0
13	14.9	29	32.5	54	61.0
14	16.0	30	34.0	55	62.0
15	17.1	32	36.2	57	64.4
16	18.2	33	37.2	60	67.5
17	19.4	36	40.5	64	72.3
18	20.4	37	41.5	65	73.1
19	22.0	39	44.0	66	74.5
20	22.7	40	45.2	67	74.5
21	23.9	41	46.1	75	83.9
22	25.0	42	47.0	95	105.0
24	27.3	45	51.2	115	127.0
25	28.3	46	52.5	135	150.0
26	29.5	47	52.5		



Definition of protection ratings to DIN EN 60529 (VDE 0470-1: 2014-09)

The protection ratings are indicated by a code that is always made up of the same two identification letters IP and the code numbers for the degree of protection.

Degrees of protection against solid foreign bodies

First code number	Short description	Definition
0	Not protected	
1	Protected against solid foreign bodies 50 mm diameter and above	The object probe, sphere of 50mm diameter, shall not fully penetrate.
2	Protected against solid foreign bodies 12.5 mm diameter and above	The object probe, sphere of 12.5 mm diameter, shall not fully penetrate.
3	Protected against solid foreign bodies 2.5 mm diameter and above	The object probe, sphere of 2.5 mm diameter, shall not penetrate at all.
4	Protected against solid foreign bodies 1.0 mm diameter and above	The object probe, sphere of 1.0 mm diameter, shall not penetrate at all.
5	Protected against dust	Intrusion of dust is not completely prevented but dust shall not penetrate in a quantity that would interfere with the satisfactory operation of the device or impair safety.
6	Dust-tight	No penetration of dust.

Degrees of protection against water

Second code number	Short description	Definition
0	Not protected	
1	Protected against drops of water	Vertically falling drops shall have no harmful effects.
2	Protected against drops of water if the housing is tilted by up to 15°.	Vertically falling drops shall have no harmful effects if the housing is tilted by up to 15° on either side of the vertical.
3	Protected against spraying water	Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects.
4	Protected against splashing water	Water splashed against the housing from any direction shall have no harmful effects.
5	Protected against jets of water	Water projected in jets against the housing from any direction shall have no harmful effects.
6	Protected against powerful jets of water	Water projected in powerful jets against the housing from any direction shall have no harmful effects.
7	Protected against the effects of temporary immersion in water	Water must not penetrate in quantities causing harmful effects when the housing is temporarily immersed in water under standardised pressure and time conditions.
8	Protected against the effects of permanent immersion in water	Water must not penetrate in quantities causing harmful effects when the housing is continually immersed in water under conditions that must be agreed upon between the manufacturer and the user. However, the conditions must be more difficult than for number 7.
9	Protected against high-pressure and steam-jet cleaning (with high temperatures)	Water projected against the housing from any direction under very high pressure shall have no harmful effects

NOTE: Starting from September 2014 the description of degree of protection IP 69K has changed to IP 69, all test basics remain the same according to DIN EN 60529 (VDE 0470-1 : 2014-09) - Degrees of protection provided by enclosures (IP Code).

FOR EXAMPLE: Identification letters IP **65**

Second code number: Protection against liquids.

First code number: Protection against contact with and penetration of foreign bodies.

Notes

Notes

Notes

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