Webguide
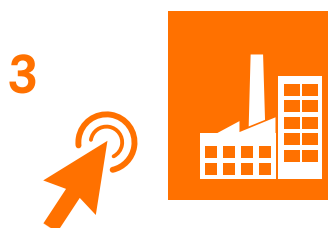# New Products Summer 2022

LAPP

CONTENT

MACHINE AND PLANT ENGINEERING

CABLES AND ACCESSORIES FOR MACHINES AND PLANTS: A PERFECT MATCH
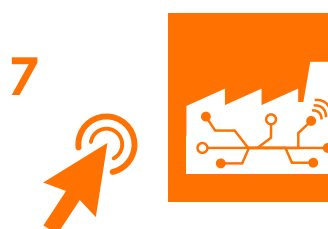
SKINTOP® MS-M/SKINTOP® MSR-M
M32 brass cable gland with extended clamping range (M40 size), for insertion of larger diameter cables.

SKINTOP® BS-SC-M METAL/ SKINTOP® BSR-SC-M METAL
Brass cable gland with bending protection spiral for use on moving machine parts, optimum EMC protection due to highly conductive contact spring.

CABLES AND ACCESSORIES FOR MACHINES AND ENCLOSURES: A PERFECT MATCH

SKINTOP® MS-M/SKINTOP® MSR-M

Everything as always and yet different: You want to remain true to the M32 connection thread and yet insert cables with a larger diameter through your cable gland? Thanks to the extended clamping range of our M32 cable gland to M40 size (19–28.0 mm), this is now quite easy. Benefit from this PLUS!

SKINTOP® BS-SC-M METAL/ SKINTOP® BSR-SC-M METAL

Overstretching the bend - not with our cable gland with bending protection spiral made of stainless steel. The cable gland protects the moving cable at the connection housing from excessive bending or even kinking. In addition, the integrated EMC contact spring contacts the shielding braid over a large area.

Cable glands

SKINTOP® cable glands nickel-plated brass metric • Standard

NEU

Click or Scan – More information available online

Technical Data

	Classification ETIM 5/6			**Protection rating**

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000441
ETIM 5.0/6.0 Class-Description: Cable screw gland

Caution
Refer to Appendix T21 for the installation dimensions and torques

Certifications
VDE, UL and DNV approval available up to size M75x1,5

Material
Body: nickel-plated brass
Insert: polyamide
Sealing: CR
O-ring: NBR

Protection rating
IP 68 - 10 bar
IP 69 (M12 - M63)
NEMA Type 1, 4x, 6, 12

Temperature range
Dynamic: –25 °C up to +100 °C

SKINTOP® MS-M/SKINTOP® MSR-M

What is new? The cable gland with M32 thread is now also available with an extended clamping range for inserting thicker cables (19–28.0 mm, clamping range M40).

Benefit

- Versatile properties make this a convincing product for a wide range of applications.
- Best possible sealing enables protection class IP 68 (10 bar) and IP 69.
- Optimal strain relief due to flexible slats.
- Large, variable clamping range for different cable outer diameters up to 98 mm.
- Innovative, double slats cage in sizes M 75 x 1.5 to M 110 x 2 simplifies installation and prevents leverage with heavy cables.
- Extensive range of accessories available.
- Article numbers ending in „LF" are lead-free product alternatives with otherwise the same product properties. „Lead-free" articles do not contain lead, which is currently still allowed to make up to four percent in copper alloys, but could be banned in the future according to the RoHS Directive.
- For article names with the suffix „PLUS", the clamping range corresponds to the next higher thread size. The extended clamping range allows the insertion of cables with a larger diameter while maintaining the same connection thread.

Application

- For sealing and strain-relieving cable entry into an enclosure.
- Withstands high chemical and mechanical stress.
- Suitable for outdoor use, taking into account the temperature range.
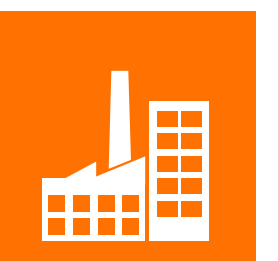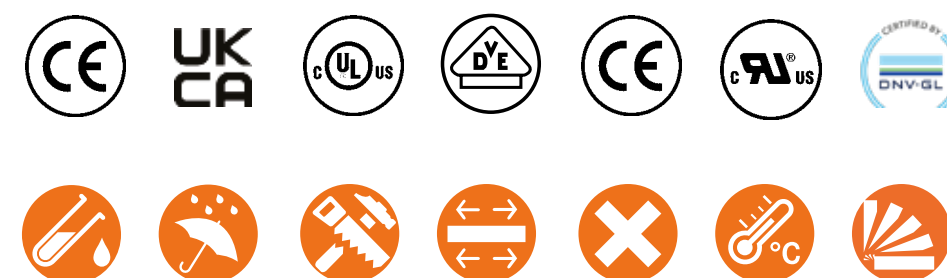
Cable glands

SKINTOP® cable glands nickel-plated brass metric • EMC

NEU

Click or Scan – More information available online

SKINTOP® BS-SC-M METAL/ SKINTOP® BSR-SC-M METAL ➕

Permanent bending protection for EMC applications under high mechanical stress

Benefit

- Bending protection spiral prevents excessive bending as well as kinking of the connected cable.

- Special design of the stainless steel spiral allows high number of bending cycles.

- Optimum EMC protection due to integrated, highly conductive and flexible contact spring, which creates a low-impedance transition between the copper shielding braid and the cable gland.

- Large, variable clamping range for different cable outer diameters.

- Best possible sealing by O-ring and sealing ring enables protection class IP 68 (10 bar) and IP 69.

- Variant „R" with reduction sealing insert for sealing smaller diameter cables.

Application

- For EMC-compliant insertion of copper-shielded cables.

- Especially on moving machine parts.

- Withstands high mechanical loads.

- Suitable for outdoor use.

Technical Data

ETIM **Classification ETIM 5/6**
ETIM 5.0/6.0 Class-ID: EC000441
ETIM 5.0/6.0 Class-Description: Cable screw gland

Caution
Refer to Appendix T21 for the installation dimensions and torques

Material
Body: nickel-plated brass
Insert: polyamide
Sealing: CR
O-ring: NBR
Spiral - springs made of stainless steel

IP **Protection rating**
IP 68–10 bar
IP 69

Temperature range
Dynamic: –25 °C up to +100 °C
Fixed: –30 °C up to +100 °C
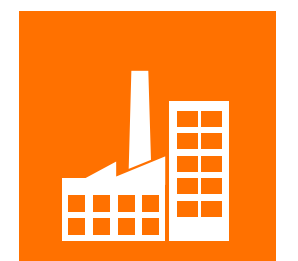
CE   UK CA

ETHERNET DATA TRANSMISSION

YOUR HIGHWAY FOR BIG DATA

ETHERLINE® SERVO DQ Y CAT.5e
Shielded Cat.5e Ethernet cable with PVC outer jacket for servo drive supply, for occasional moving use, compliant with the DRIVE-CLiQ® system interface.

ETHERLINE® ROBOT PN FC Cat.5e 1x4x22AWG
Highly flexible, Cat.5e Ethernet cable for continuously moving use with torsional stress, for PROFINET applications type R, variant „FC" with Fast Connect connection.

ETHERLINE® ACCESS PN IP67
Industrial Ethernet switch with 8 ports for M12D connectors, protection class IP 67, for decentralised applications in PROFINET networks (CC-B).

ETHERLINE® ACCESS U IP67
Unmanaged industrial Ethernet switch with 8 ports for M12D connectors, protection class IP 67, for decentralised applications.

ETHERNET DATA TRANSMISSION: YOUR HIGHWAY FOR BIG DATA

ETHERLINE® SERVO DQ Y Cat.5e

Less is more, as with the new Industrial Ethernet cable for servo drive supply. Thanks to conformity with the DRIVE-CLiQ® system interface and PVC outer jacket, the cable for data supply enables a wide range of applications. Reduced to the essentials, it is perfectly suited for occasional moving use.

ETHERLINE® ROBOT PN FC CAT.5e 1X4X22AWG

For robot applications, rely on our Industrial Ethernet cable, which has been developed and tested according to the uniform PROFINET standard „Type R". Drag chain, torsion and alternating bending properties are now combined in just one cable. Thanks to its Fast-Connect structure with inner jacket, the Ethernet cable can be assembled particularly quickly.

ETHERLINE® ACCESS PN IP67

The PROFINET switch with versatile management functions connects up to 8 network nodes via M12D-coded connections. Thanks to its IP 67 protection class, the switch can be installed directly in the field, on or in the machine, and thus enables continuous Ethernet networking.

ETHERLINE® ACCESS U IP67

The quickly deployable unmanaged switch connects up to 8 network participants via M12D-coded connections. Thanks to its IP 67 protection class, the switch can be installed directly in the field, on or in the machine, and thus enables continuous Ethernet networking.

Data communication systems for ETHERNET technology

Industrial Ethernet, Cat.5 / 5e • Cables for flexible applications

NEU

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information available online

ETHERLINE® SERVO DQ Y Cat.5e ➕

Encoder cables for DRIVE-CLiQ® applications

Benefit

- Compliant with the open DRIVE-CLiQ® system interface.
- Reduced cabling effort thanks to additional wire pair for power supply of the encoder.
- Ideal protection against electromagnetic interference due to copper shielding braid with high degree of coverage.
- Cat.5e performance up to 100 Mbit/s.

Application

- For use in SIEMENS® SINAMICS-S120 drive systems for servo drive supply.
- For wiring the control unit and synchronous motor and/or encoder with DRIVE-CLiQ® system interface.
- For fixed installation and occasional movement.
- Can be used in dry and damp rooms.
- PVC outer sheath is resistant to acids and alkalis.
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Technical Data

Peak operating voltage
max. 100 V (not for power applications)

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

Test voltage
Core/core: 700 V
Core/screen: 700 V

Characteristic impedance
nom. 100 W

Temperature range
Fixed installation: –15 °C up to +70 °C
Flexing: –5 °C to +70 °C

Data communication systems for ETHERNET technology

PROFINET, Cat.5 • Typ R - Cables for robot application

NEU

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ETHERLINE® ROBOT PN FC Cat.5e 1x4x22AWG

What is new? The highly flexible Cat.5e Ethernet cable for continuous motion applications with torsional stress is now also available with Fast Connect connection.

Benefit

• Variant „FC" with Fast-Connect construction with inner jacket enables effortless stripping and assembly of the cable.

• Line structure according to PROFINET standard „Type R" for robot applications.

• Bundles essential drag chain, torsion and alternating bending properties in one cable.

• Compatible with PROFINET-compliant components.

• Special core stranding allows simultaneous bending and twisting (torsion angle up to ± 180°/m).

• Successfully tested to 5 million bending cycles in drag chain, 5 million torsion cycles and 1 million alternating bending cycles in TicToc bending test.

• Increased resistance to electromagnetic interference thanks to stranding as a star quad as well as double shielding made of aluminium-laminated foil and copper shielding braid with a high degree of coverage (SF/UTP).

• Low-capacity core insulation for long transmission paths.

• UL/CSA certification according to technical data enables use of the product in the North American region.

Application

• Especially for highly flexible, continuously moving use with torsional stress in industrial robots and handling devices in the PROFINET network (type R).

• Also suitable for EtherCAT and EtherNET/IP applications.

• Can be used in dry, damp and especially in rough and oily environments.

• PUR outer jacket withstands high mechanical loads.

• PUR outer jacket is insensitive to mineral oil-based lubricants and chemically resistant in many cases.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000830
ETIM 5.0/6.0 Class-Description: Data cable

Peak operating voltage
(not for power applications)
125 V

Minimum bending radius
Fixed installation: 8 x outer diameter
Flexible use: 12 x outer diameter

Test voltage
Core/core: 2000 V
Core/screen: 2000 V

Characteristic impedance
nom. 100 W acc. to IEC 61156-6

Temperature range
Fixed installation: −40 °C to +80 °C
Flexible use: −20 °C to +60 °C

Data communication systems for ETHERNET technology

Industrial Ethernet • Active network components

NEU

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ETHERLINE® ACCESS PN IP67

Industrial Ethernet switch with 8 ports for M12D connectors, protection class IP 67, for decentralised applications in PROFINET networks (CC-B).

Benefit

- With 8 ports (10 / 100Base-T(X)) for D-coded M12 connectors.
- Particularly suitable for harsh environments thanks to protection class IP 67.
- Prioritisation of PROFINET telegrams with real-time data.
- Easy configuration and diagnostics via PROFINET or web interface.
- Supports MRP (client), LLDP, DCP, SNMP, allows port mirroring, diagnostic alarms and detailed network statistics.

Application

- For use in PROFINET networks in automation technology („Conformance Class B").
- For decentralised use at field level, outside the control cabinet.
- Can be used in an extended temperature range from –40 °C to +75 °C.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000734
ETIM 5.0/6.0 Class-Description: Network switch

Power supply
DC 24 V (18–30 V DC)

IP Protection rating
IP 67

Temperature range
–40 °C up to +75 °C

CE   UK CA

Data communication systems for ETHERNET technology

Industrial Ethernet • Active network components

NEU

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ETHERLINE® ACCESS U IP67

Unmanaged industrial Ethernet switch with 8 ports for M12D connectors, protection class IP 67, for decentralised applications.

Benefit

- With 8 ports (10/100Base-T(X)) for D-coded M12 connectors.
- Particularly suitable for harsh environments thanks to protection class IP 67.
- Quickly ready for use with little installation effort.
- High performance due to generous 16K MAC address table and extensive 256Kbyte packet buffer.

Application

- For use in Ethernet-based networks in automation technology.
- Also suitable for use in PROFINET networks („Conformance Class A").
- For decentralised use at field level, outside the control cabinet.
- Can be used in an extended temperature range from −40 °C to +75 °C.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000734
ETIM 5.0/6.0 Class-Description:
Network switch

Power supply
DC 24 V (18–30 V DC)

IP **Protection rating**
IP 67

Temperature range
−40 °C up to +75 °C

CE   UKCA

LEGEND

NEW PRODUCT

PRODUCT EXTENSION

PRODUCT CHARACTERISTICS

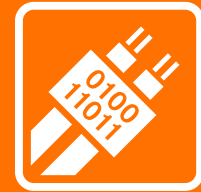|			
Suitable for outdoor use	Maximum vibration protection	Clean room	Temperature-resistant
Good chemical resistance	Mechanical resistance	Robust	Torsion-resistant
Flame-retardant	Assembly time	Acid-resistant	Torsion load
Wide clamping range	Low weight	Reliability	UV-resistant
Halogen-free	Oil-resistant	Integrated SKINTOP® cable gland	Waterproof
Heat-resistant	Optimum strain relief	Voltage	Variety of approval certifications
Cold-resistant	Space requirement	Connector with standard housing unit	Submersible use
Corrosion-resistant	Power Chain	Interference signals	

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.

ÖLFLEX®
Power and control cables

UNITRONIC®
Data communication systems

ETHERLINE®
Data communication systems
for ETHERNET technology

HITRONIC®
Optical transmission systems

EPIC®
Industrial connectors

SKINTOP®
Cable glands

SILVYN®
Protective cable conduit systems
and cable carrier systems

FLEXIMARK®
Marking systems

Note: A detailed article list is available online or from your contact person.

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Due to the current material shortages, delivery times may be longer.

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