Webguide

New Products Autumn 2021

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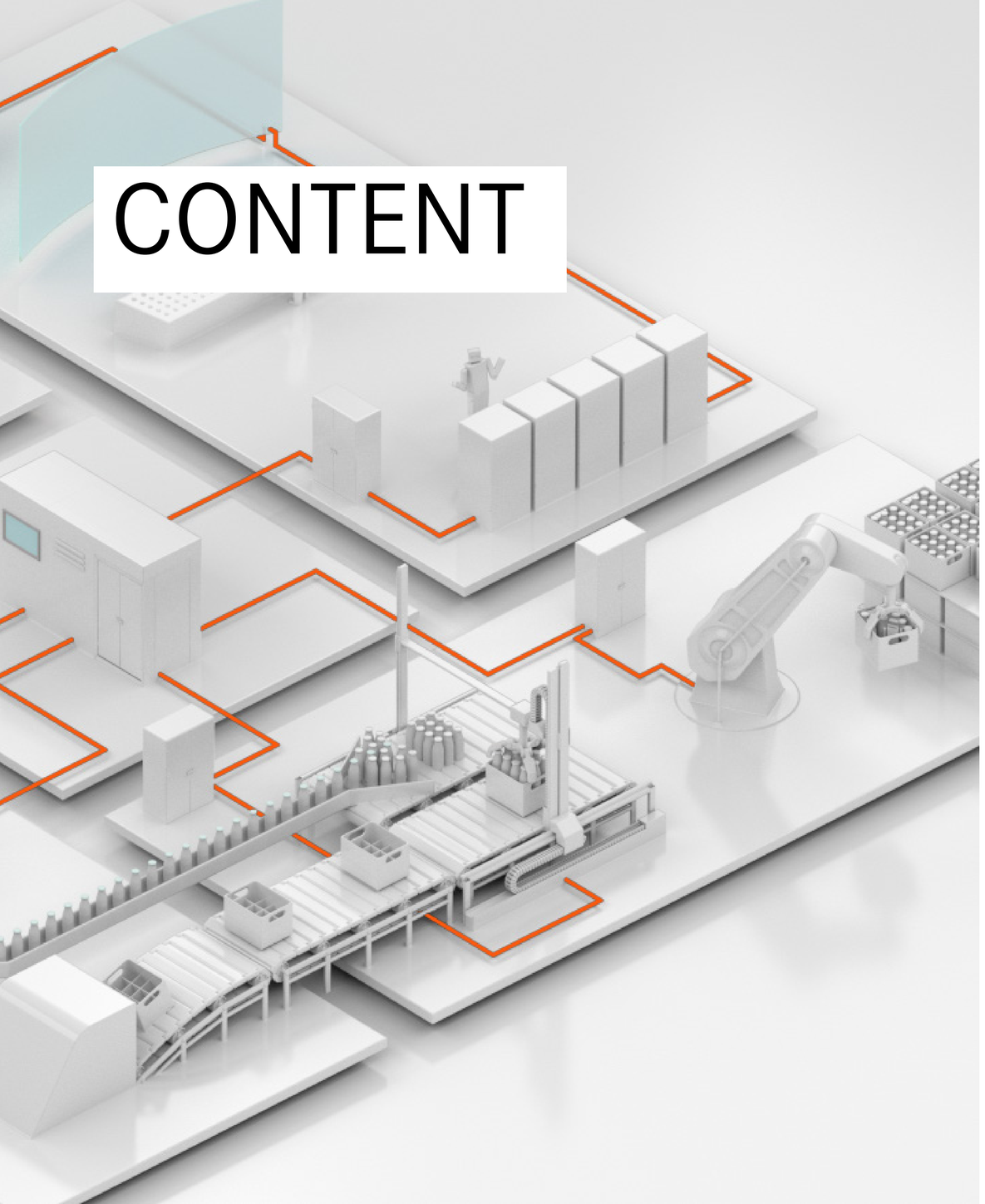


CONTENT

MACHINE AND PLANT ENGINEERING

CABLES AND ACCESSORIES FOR MACHINES AND PLANTS: A PERFECT MATCH

NEW: Autumn 2021

ÖLFLEX® SERVO 2XSLCY-JB
Low-capacitance motor cable with PVC jacket for increased ampacity and longer installation lengths, UV-resistant, with North America certification.

ÖLFLEX® DC ESS SC
Halogen-free, highly flame-retardant single-core cable for DC applications in photovoltaic systems.

UNITRONIC® FD CP plus A
Highly flexible, shielded PUR low-frequency data cable forcontinuous use in drag chains and industrial robots.

UNITRONIC® FD CP (TP) plus A
Highly flexible, shielded PUR low-frequency data cable with twisted-pair stranding for permanent use in drag chains and industrial robots.

SKINTOP® MULTI Flange FL 21
Flange plate with seal, suitable for the multiple entries SKINTOP®MULTI/SKINTOP® CUBE. Reduces the Scandinavian standard mounting cutout FL21.

SKINTOP® MULTI-M
Round multiple entry for up to 30 non-assembled cables. Cable gland with innovative membrane technology for the best possible sealing.

CABLES AND ACCESSORIES FOR MACHINES AND ENCLOSURES: A PERFECT MATCH

ÖLFLEX® SERVO 2XSLCY-JB

When converters and motors are being connected, the UL-certified motor cable ensures fault-free, EMC-compliant system operation, i.e. loss-free power transmission over long distances with an increased current rating. The 3+3-core variants additionally minimise damaging motor bearing currents.

UNITRONIC® FD CP PLUS A

Moving is no problem at all: This highly flexible low-frequency data cable performs in all applications relating to movement (robots, cable chains) and can also withstand simple torsion, such as that occurring in the loop of a wind turbine. Signal transmission is very successful thanks to the robust PUR outer sheath and low-capacitance core insulation!

SKINTOP® MULTI FLANGE FL21

There is always a solution: With this flange plate you reduce the size of the Scandinavian standard FL21 mounting cut-out, making you more flexible when selecting your multi-cable entry system. It is compatible with our SKINTOP® MULTI or SKINTOP® CUBE products for simultaneous insertion of several cables into a housing.

ÖLFLEX® DC ESS SC

An ideal candidate for energy storage systems (ESS): this single core cable distributes the direct current e. g. generated by solar modules. The cross-linked insulation and sheathing materials make long-term use outdoors possible. You are also sure to find your required conductor cross-section among the 17 different variants!

UNITRONIC® FD CP (TP) PLUS A

Moving is no problem at all: This highly flexible low-frequency data cable performs in all applications relating to movement (robots, cable chains) and can also withstand simple torsion, such as that occurring in the loop of a wind turbine. Signal transmission is very successful thanks to the robust PUR outer sheath and low-capacitance core insulation! For ideal decoupling of conductor circuits with TP structure.

SKINTOP® MULTI-M

Still completely sealed?The round, screw-in multi-cable entry system introduces up to 30 cables simultaneously into a housing and seals them with IP 68 protection. If required, we can now also supply the SKINTOP® MULTI-M in sizes M25 and M32 for 4 or 8 cables. You can be very flexible when selecting the cable diameter!

Power and control cables

Servo applications • PVC sheath, certified

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000057
ETIM 5.0/6.0 Class-Description: Low voltage power cable

Core identification code
Colours according to HD 308 S2 VDE 0293-308

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: 4 x outer diameter

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

Test voltage
4000 V

Protective conductor
Protective conductor of 3+3 version is gusset-filling divided between power cores

Temperature range
Flexing:
-15°C to +90 °C (UL/CSA +80°C)
Fixed installation:
-40°C to +90 °C (UL/CSA +80°C)

ÖLFLEX® SERVO 2XSLCY-JB

Low-capacitance motor cable with PVC jacket for increased ampacity and longer installation lengths, UV-resistant, with North America certification.

Benefit

- Power supply for large drives possible.
- Ideal protection against electromagnetic interference thanks to double shielding made of aluminium-laminated foil and copper braiding with a high degree of coverage.
- Low-capacitance XLPE core insulation with outstanding electrical properties enables long transmission paths.
- Classified fire behaviour according to EU Directive 305/2011 (BauPVO/CPR) with article number selection at www.lappkabel.de/cpr.
- UL/CSA certification according to technical data enables the product to be used on the North American market.
- Product with multiple certifications enables universal use and reduces the variety of parts, thus guaranteeing logistics savings.
- Operating voltage of 1000 V according to UL, permitted for North America.
- Available as a 4-core version and 3+3 balanced version.
- Versions with symmetrical cable design and splitted protective conductor largely prevent the generation of damaging bearing currents inside the motor. A reduction in motor bearing damage contributes to the durability of motors.
- The optimized core insulation makes stripping easier and improves cable flexibility.

Application

- For connecting frequency converters and servo motors.
- For fixed installation and occasional flexing.
- Can be used in dry, damp or wet environments.
- Suitable for medium mechanical stress.
- The PVC outer sheath is resistant to acids and alkalis, and to oil to a limited degree.
- Suitable for outdoor use.

Power & Control

Power & Control Cables • Renewable Energy Applications

ÖLFLEX® DC ESS SC

Halogen-free, highly flame-retardant single-core cable for DC applications

Benefit

- Cross-linked insulation and sheath materials promote durability at high temperatures or at high current load, ensure a high dielectric strength and a high maximum short circuit temperature.
- Halogen-free and highly flame-retardant materials reduce the risk of flame propagation, high smoke density and toxicity of smoke gases in the event of a fire.
- Good installation properties thanks to fine-wire, flexible conductor design.
- Available in conductor cross-sections up to 400 mm².

Application

- For direct current applications up to 1.5 kV.
- For use in energy storage systems (ESS).
- For fixed installation.
- Can be used in dry, damp or wet environments.
- The electron beam cross-linked polymer compound is highly resistant to oils, fuels, alkalis and acids.
- Suitable for outdoor use.
- Can be used at temperatures down to –40°C.

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

Nominal voltage
DC 1500 V

Temperature range
Fixed installation: -40 °C up to +120 °C max. conductor temperature

Data communication systems

Low frequency data transmission cables • Highly flexible and UL/CSA-certified

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
DIN 47100, refer to Appendix T9

Mutual capacitance
C/C approx. 60 nF/km

Inductivity
approx. 0.65 mH/km

Conductor stranding
Stranded, extra-fine wire

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

Minimum bending radius
Flexing: 7.5 x outer diameter
Fixed installation: 4 x outer diameter

Test voltage
Core/Core: 1500 V
Core/Shield: 1500 V

Temperature range
-40 °C to +80 °C
cRUus AWM: max. +80 °C

UNITRONIC® FD CP plus A

Highly flexible, shielded PUR low-frequency data cable for continuous use in drag chains and industrial robots.

Benefit

- The very robust cable design and the possibility of use over an extremely wide temperature range opens up a broad scope of applications.
- Durable, insensitive product thanks to abrasion, notch and cut-resistant PUR outer sheath material.
- Low-capacitance core insulation for long transmission paths or higher transmission speeds.
- Ideal protection against electromagnetic interference thanks to copper braiding with a high degree of coverage.
- Relatively small bending radii are achieved thanks to highly flexible cable design.
- UL certification according to technical data enables the product to be used on the North American market.

Application

- Can be used universally at machine interfaces for many applications in data and signal transmission in the low-frequency range.
- Especially for environments where electromagnetic compatibility (EMC) is required.
- Cable design enables flexible, constantly flexing use in industrial robots (without torsional stress) and handling devices.
- Cable design enables flexible use in moving machine parts and in a cable chain.
- Cable design suitable for torsion applications in wind turbines.
- Can be used in dry, damp and especially in harsh and oily environments.
- The PUR outer sheath is insensitive to mineral oil-based lubricants and is chemically resistant in many cases.
- Suitable for outdoor use in Europe.
- Flexible use at temperatures down to –40°C.

Data communication systems

Low frequency data transmission cables • Highly flexible and UL/CSA-certified

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
DIN 47100, refer to Appendix T9

Mutual capacitance
Up to 0.5 mm²: 60 nF/km
Up to 1.0 mm²: 70 nF/km

Inductivity
approx. 0.65 mH/km

Conductor stranding
Stranded, extra-fine wire

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

Minimum bending radius
Flexing: 7.5 x outer diameter
Fixed installation: 4 x outer diameter

Test voltage
Core/Core: 1500 V
Core/Shield: 1500 V

Temperature range
-40 °C to +80 °C
cRUus AWM: max. +80 °C

UNITRONIC® FD CP (TP) plus A

Highly flexible, shielded PUR low-frequency data cable with twisted-pair stranding for permanent use in drag chains and industrial robots.

Benefit

- The very robust cable design and the possibility of use over an extremely wide temperature range opens up a broad scope of applications.
- The conductor circuits are well decoupled thanks to the twisted pair (TP) with short lay lengths.
- Durable, insensitive product thanks to abrasion, notch and cut-resistant PUR outer sheath material.
- Low-capacitance core insulation for long transmission paths or higher transmission speeds.
- Ideal protection against electromagnetic interference thanks to copper braiding with a high degree of coverage.
- Relatively small bending radii are achieved thanks to highly flexible cable design.
- UL certification according to technical data enables the product to be used on the North American market.

Application

- Can be used universally at machine interfaces for many applications in data and signal transmission in the low-frequency range.
- Especially for environments where electromagnetic compatibility (EMC) is required.
- Cable design enables flexible, constantly flexing use in industrial robots (without torsional stress) and handling devices.
- Cable design enables flexible use in moving machine parts and in a cable chain.
- Cable design suitable for torsion applications in wind turbines.
- Can be used in dry, damp and especially in harsh and oily environments.
- The PUR outer sheath is insensitive to mineral oil-based lubricants and is chemically resistant in many cases.
- Suitable for outdoor use in Europe.
- Flexible use at temperatures down to –40°C.

SKINTOP® MULTI Flange FL21

Flange plate with seal, suitable for the multiple entries SKINTOP® MULTI / SKINTOP® CUBE. Reduces the Scandinavian standard mounting cutout FL21.

Benefit

- Reduces the rectangular, standard FL21 mounting cut-out and allows flexibility when selecting the multi-cable entry system.
- Versatile use in various applications and environments.
- Pre-assembled NBR seal enables reliable sealing to the housing (protection class IP 66).
- Easy assembly with 4 fastening screws.
- Stable construction made of powder-coated steel sheet or V2A stainless steel.

Application

- For cable entry into a housing with Scandinavian FL21 mounting cut-out, while simultaneously using the SKINTOP® MULTI or SKINTOP® CUBE multi-cable entry systems.
- Can be used in dry, damp and oily environments.
- Suitable for outdoor use.

Technical Data

Material
Steel,
Stainless steel
Sealing: NBR

Protection rating
IP 66

Temperature range
-10 °C to +70 °C

Cable glands

SKINTOP® cable bushing systems • Cable bushing systems

SKINTOP® MULTI-M

WHAT IS NEW? Round multiple entry for up to 30 non-assembled cables.
Cable gland with innovative membrane technology for the best possible sealing.

Benefit

- Multi-cable entry system allows a higher packing density (up to 30 cables depending on the variant).
- Large clamping ranges, variable by 4 mm each for different cable diameters.
- Direct cable entry without pre-piercing the bushings.
- Flexibility in selecting the cable diameter reduces the variety of parts in the warehouse, generating logistical and cost benefits.
- Easy assembly on the housing by screwing or fastening with a lock nut.
- Unused bushings remain securely closed and sealed thanks to elastic gel technology with innovative membrane technology.
- The best possible sealing to the housing and the cables enables protection class IP 68.
- UL certification according to technical data enables the product to be used on the North American market.

Application

- For sealing and strain-relief insertion of multiple non-assembled cables through a housing.
- Can be used in dry, damp and oily environments.
- Suitable for outdoor use.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000240
ETIM 5.0/6.0 Class-Description:
Cable entry

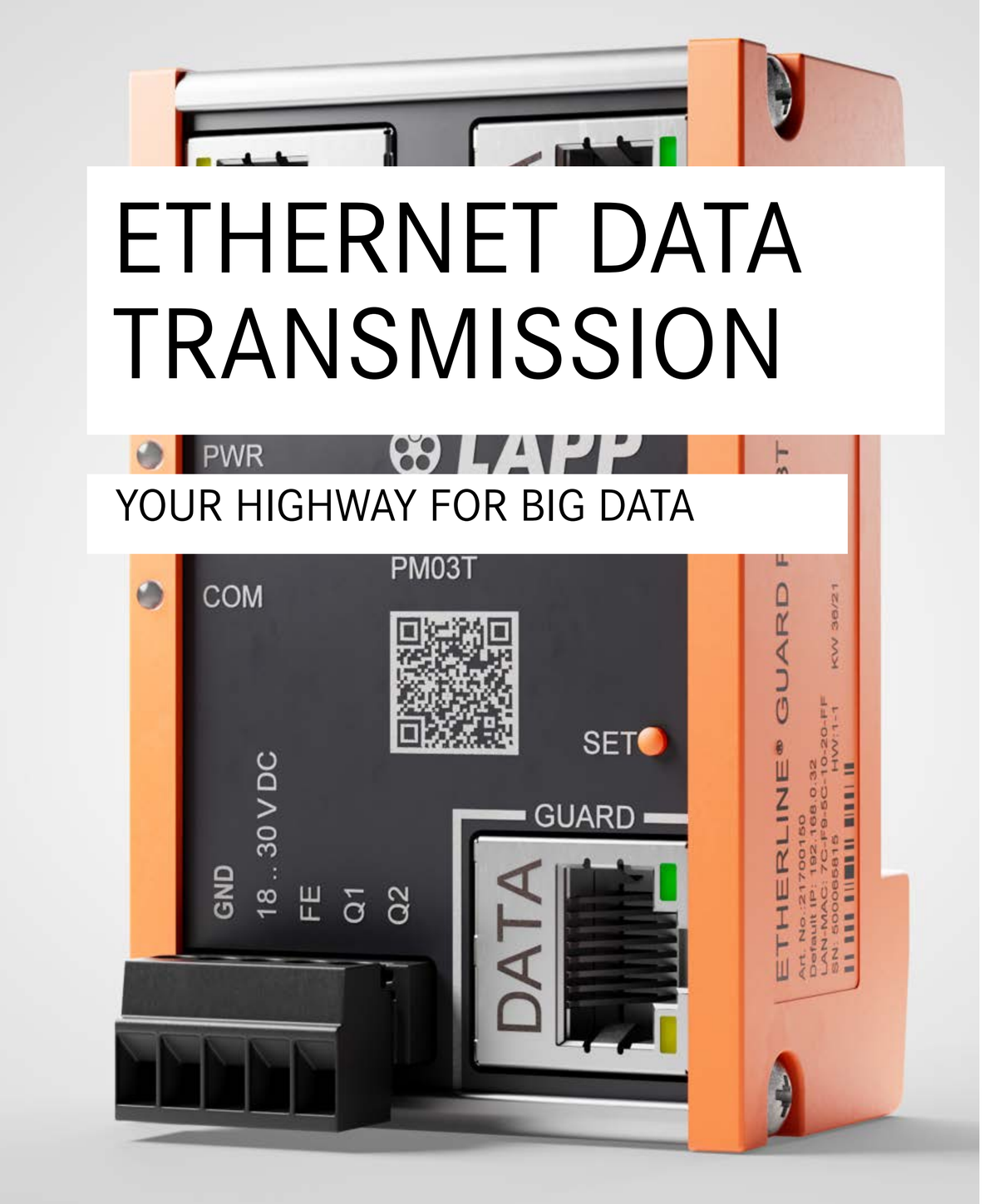
Certifications
UL File No. E349737
Fire behaviour acc. to UL94 V-2
Hazard Level HL 2 acc. to EN 45545-2

Note
On request:
- individual bushing configuration
- other metric thread sizes

Material
Frame: Polycarbonat
Sealing: Gel
O-Ring: NBR

Protection rating
IP 68

Temperature range
With O-ring: -20 °C to +100 °C
Without O-ring: -30 °C to +110 °C



ETHERNET DATA TRANSMISSION

YOUR HIGHWAY FOR BIG DATA

NEW: Autumn 2021

ETHERLINE® GUARD
Monitoring device for predictive maintenance, suitable for Ethernet data lines (100 Mbit/s) e.g. in PROFINET networks.

ETHERLINE® TORSION CAT.6_A Patchcords
Cat.6_A Ethernet patch cable (10 Gbit/s), assembled on one or both sides, with M12 connector, torsion-proof up to ± 180 °/m.

ETHERLINE® FLEX Cat.6_A Patchcords with ECE R118 approval
Cat.6A Ethernet patch cable (10 Gbit/s), assembled on one or both sides, with M12 or RJ45 connector, for flexible use (also UN/ECE R118).

ETHERLINE® EC FD Cat.5e Patchcords with ECE R118 approval
Assembled on one or both sides, Cat.5e Ethernet patch cable (100 Mbit/s), with M12, M8 or RJ45 connector, for use in drag chains (also UN/ECE R118).

EPIC® DATA TS GOF
GOF adapter for quick connection of patch cables and installation cables in the control cabinet. Suitable for data connectors SC, LC-D, SC-RJ.

ETHERNET DATA TRANSMISSION: YOUR HIGHWAY FOR BIG DATA

ETHERLINE® GUARD

The stationary, absolutely compact monitoring device monitors the performance of your highly loaded ethernet cable at risk of failure and and displays the current cable status. Why perform preventive maintenance if it can also be planned in an optimal way? You too can take advantage of the benefits of predictive maintenance!

ETHERLINE® FLEX CAT.6_A Patchcords with ECE R118 approval

Our Cat.6_A performance factory-assembled data cable can be used for structured building cabling as well as industrial environments. The halogen-free materials also allow use in buses. The assembly is optimally shielded and is available either with RJ45 or M12 connectors.

EPIC® DATA TS GOF

Just plug, no longer splice: The mounting rail adapter connects the glass fibre outside your control cabinet to the patch cable inside your control cabinet. The adapter is suitable for LC-D, SC and SC-RJ connectors, for SM and MM fibres and saves time during installation. For pluggable connections, also in the PROFINET network!

ETHERLINE® TORSION CAT.6_A Patchcords

Plug & Play in torsion applications: This data cable with PUR outer sheath and vibration-resistant M12 connectors can be twisted up to ± 180°/m and reliably transmits signals at speeds up to 10 Gbit/s (Cat. 6_A). A real advantage for robot applications or wind turbines! Can also be used in the PROFINET network.

ETHERLINE® EC FD CAT.5e Patchcords with ECE R118 approval

With its abrasion-resistant PUR outer sheath, the factory-assembled data cable (Cat.5e performance) is suitable for demanding, constantly flexing applications in the cable chain. The halogen-free materials also allow use in buses. The assembly is optimally shielded and is available with RJ45, M8 A-coded or M12 D-coded connectors.

NEW

Click or Scan – More information available online

ETHERLINE® GUARD

Monitoring device for predictive maintenance, suitable for Ethernet data lines (100 Mbit / s) e.g. in PROFINET networks.

Benefit

- Increase plant availability through planned downtimes. This reduces maintenance costs.
- Easy commissioning with automated parameterisation („teach-in“ in seconds).
- Does not require a new data cable or changes to the cable design; upgrade to the existing network structure is possible at any time.
- Space-saving due to unique compact design.
- Reliable Cloud communication thanks to the MQTT interface (for status/data evaluation, settings, WiFi configuration, update, etc.).
- Available in two versions: cable-bound LAN version “PM03T” and wireless WiFi version “PM02TWA”.

Application

- For use in Ethernet-based networks for automation technology.
- For monitoring the service life of a data cable at risk of failure (e.g. function-critical data cable in dynamic applications).
- Suitable for data cables according to transmission standard 100BASE-TX (up to 100 Mbit/s) according to IEEE 802.3.
- Also suitable for EtherCAT, EtherNET/IP and 2-pair PROFINET applications.
- For use in control cabinets (protection class IP 20).

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)

Protection rating
IP20

Temperature range
-40 °C up to +75 °C

Data communication systems for ETHERNET technology

PROFINET, Cat.6_A • Type C - Patch cables for continuous flexing applications

ETHERLINE® TORSION Cat.6_A Patchcords

WHAT IS NEW? Cat.6_A Ethernet patch cable (10 Gbit s), assembled on one or both sides, with M12 connector, torsion-proof up to ± 180 °/m, for use with robots.

Benefit

- Assembled on one or on both sides saves installation time and reduces assembly errors.
- Special core stranding allows rotations with torsion angles up to ± 180°/m. Cable successfully tested for 5 million torsion cycles.
- Ideal protection against electromagnetic interference thanks to pair screening with aluminium compound foil and copper braiding as overall screening (S/FTP).
- Halogen-free core insulation and sheath compound to meet special fire protection requirements.
- The connector‘s integrated vibration protection makes it resistant to shocks and vibrations.
- Cat. 6_A performance up to 10 Gbit/s.
- For transmission of analogue and digital signals in the frequency range up to 500 MHz.

Application

- Cable design enables flexible, constantly flexing use under torsional stress in industrial robots and handling devices.
- Also suitable for torsion applications in wind turbines.
- For flexible use in the PROFINET network (application type C).
- Also suitable for EtherCAT and EtherNET/IP applications.
- Can be used in dry and damp environments.
- The PUR outer sheath withstands high mechanical stress.
- The PUR outer sheath is insensitive to mineral oil-based lubricants and is chemically resistant in many cases.
- Suitable for outdoor use.

Technical Data

Minimum bending radius
Flexing: 15 x outer diameter
Fixed installation: 8 x outer diameter

Protection rating
IP 67
Coding
M12: X-Standard

Temperature range
Flexing: -30 °C to +70 °C
Fixed installation: -30 °C to +80 °C

Data communication systems for ETHERNET technology

Industrial Ethernet, Cat.6_A • Patch cables for flexible applications

ETHERLINE® FLEX Cat.6_A Patchcords

WHAT IS NEW? Cat.6_A Ethernet patch cable (10 Gbit/s), assembled on one or both sides, with M12 or RJ45 connector, for flexible use (also UN/ECE R118).

Benefit

- Assembled on one or on both sides saves installation time and assembly errors.
- Suitable for Ethernet applications information exchange at up to 10 Gbit/s over 60 m thanks to Cat.6_A Ethernet.
- Available with RJ45 or M12 connectors. The slim RJ45 connector enables use in devices with a very high port density, while the integrated vibration protection of the M12 connector is useful in applications with shock and vibrations.
- Ideal protection against electromagnetic interference thanks to pair screening with aluminium compound foil and copper braiding as overall screening (S/FTP).
- Halogen-free core insulation and sheath compound to meet special fire protection requirements.

Application

- For structured building cabling according to EN 50173 and ISO/IEC 11801.
- Also suitable for EtherCAT and EtherNET/IP applications.
- Compliant with standards for use in buses (fire behaviour test according to UN/ECE R118 for vehicles of category M3 (II and III)).
- Can be used in dry, damp and especially in harsh and oily environments.
- The PUR outer sheath is insensitive to mineral oil-based lubricants and is chemically resistant in many cases.

Technical Data

Classification
ETIM 5.0 Class-ID: EC002599
ETIM 5.0 Class-Description: Patch cord copper (twisted pair) industry

Minimum bending radius
Fixed installation: 4 x outer diameter
Flexing: up from 10 x outer diameter

Protection rating
M12: IP 67
RJ45: IP 20

Temperature range
Flexing: -30 °C to +80 °C (M12)
Flexing: -40 °C to +70 °C (RJ45)

Coding
M12: X-Standard

EtherNet/IP

Data communication systems for ETHERNET technology

Industrial Ethernet, Cat.5/5e • Patch cables for continuous flexing applications

ETHERLINE® EC FD Cat.5e Patchcords

WHAT IS NEW? Assembled on one or both sides, Cat.5e Ethernet patch cable (100 Mbit/s), with M12, M8 or RJ45 connector, for use in drag chains (also UN/ECE R118).

Benefit

- Connecting cable assembled on one or on both sides saves installation time and reduces assembly errors.
- High resistance to electromagnetic interference thanks to star quad stranding as well as double shielding made of aluminium-laminated foil and a high degree of coverage (SF/UTP).
- Available with RJ45, M8 or M12D connectors. The slim RJ45 connector enables use in devices with a very high port density, while the integrated vibration protection of the M8/M12D connector is useful for applications with shock and vibrations.
- Angled connectors enable use in space-constrained cabinets
- Halogen-free core insulation and sheath compound to meet special fire protection requirements.
- Cat.5e performance up to 100 Mbit/s.
- For transmission of analogue and digital signals in the frequency range up to 100 MHz.

Application

- Cable design enables highly flexible, constantly flexing use in moving machine parts and in the cable chain.
- Also suitable for EtherCAT and EtherNET/IP applications.
- Compliant with standards for use in buses (fire behaviour test according to UN/ECE R118 for vehicles of category M3 (II and III)).
- Can be used in dry, damp and especially in harsh and oily spaces.
- The PUR outer sheath and connectors withstand high mechanical loads.
- The PUR outer sheath is insensitive to mineral oil-based lubricants and is chemically resistant in many cases.

Technical Data

Classification
ETIM 5.0/6.0: EC002599
Description: Patch cord copper (twisted pair) industry

Minimum bending radius
Flexing: 8 x outer diameter
Fixed installation: 4 x outer diameter

Protection rating
M8: IP 67
M12: IP 67
RJ45: IP 20

Temperature range
During installation: -30 °C to +50 °C
Fixed installation: -30 °C to +80 °C

Coding
M8: A-Standard
M12: D-Standard

EtherNet/IP

NEW

Click or Scan – More information available online

EPIC® DATA TS GOF

GOF adapter for quick connection of patch cables and installation cables in the control cabinet. Suitable for data connectors SC, LC-D, SC-RJ.

Benefit

- Time-saving installation compared to splice boxes: Plugging-in is sufficient, no time-consuming splicing is required.
- Pluggable connections enable quick and easy replacement of devices in the event of defects.
- Space-saving, compact design for mounting directly on 35 mm top-hat rails.
- For orderly cabling in the control cabinet.
- Suitable for LC-D, SC or SC-RJ connectors.
- Can be used with single-mode and multi-mode fibres.

Application

- For creating a pluggable glass fibre connection between permanently installed glass fibre cables and the glass fibre patch cables in the control cabinet.
- Article variants with SC-RJ couplings are suitable for use in the PROFINET network.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC001130
ETIM 5.0/6.0 Class-Description: Patch panel fibre optic

Protection rating
IP 20

Temperature range
-10 to + 60 °C (operation)

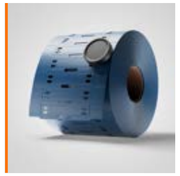
FOOD & BEVERAGE INDUSTRY

PRODUCTS THAT MEET STRICT QUALITY STANDARDS

NEW: Autumn 2021

FLEXIMARK® Cablelabel detectable
Detectable cable label for the food industry. temperature-resistant, compatible with FLEXIMARK® thermal transfer printer and FLEXIMARK® software.

FOOD & BEVERAGE INDUSTRY: PRODUCTS THAT MEET STRICT QUALITY STANDARDS



FLEXIMARK® DETECTABLE CABLE LABEL

There‘s no hiding! The temperature and oil-resistant thermal transfer printing label is suitable for demanding environments such as the F&B sector or food packaging plants, where labels must be detectable. It complies with FDA 21 CFR – GRAS and supports you in implementing the HACCP hygiene concept.

Marking systems

FLEXIMARK® Labels for thermal transfer printing • Cable and single core marking

FLEXIMARK® Cablelabel detectable

Detectable cable label for the food industry. Temperature-resistant, compatible with FLEXIMARK® thermal transfer printer and FLEXIMARK® software.

Benefit

- Detectable by X-ray or magnetic metal detectors thanks to tiny metal particles in the material. If a label accidentally enters the direct production environment of food, it can be located more easily. This means that expensive plant shutdowns can be avoided.
- Use of the product helps food processing companies to implement the HACCP (Hazard Analysis Critical Control Point) concept.
- Compliant with FDA 21 CFR - GRAS (Generally Recognized as Safe). Quality standard for the food and beverage industry in North America.
- Compliant with Regulation (EU) No. 10/2011 on plastic materials and articles specifically for the food and beverage industry in Europe.
- Thermal transfer printing process produces durable, smudge and scratch resistant labels that are resistant to aggressive media, microorganisms as well as oils.
- Withstands temperatures up to +115°C for short periods and is hydrolysis-resistant, a property that is crucial for frequent cleaning processes with hot water or steam.
- Flexible material enables easy assembly with 1 or 2 detectable cable ties.
- In the colour blue to easily distinguish from foodstuffs.

Application

- For marking single cores, cables and components in demanding industries. Typical areas of application are the food industry and packaging plants.
- Printable with FLEXIMARK® thermal transfer printers.
- Printable with FLEXIMARK® software 11.0.
- Suitable for outdoor use.

Technical Data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-Description: Cable coding system

Material
Halogen-free polyurethane (TPU)

Temperature range
-40 °C to +105 °C
Could also withstand +115 °C in the short term

ROLLING STOCK

CONNECTION SOLUTIONS FOR RAILWAY TECHNOLOGY

NEW: Autumn 2021

ÖLFLEX® TRAIN 4GKW-C
Halogen-free, shielded single core cable for rail vehicles, electron beam cross-linked insulating materials, tested fire behavior according to EN 45545-2.

ROLLING STOCK:
CONNECTION SOLUTIONS FOR RAILWAY TECHNOLOGY

ÖLFLEX® TRAIN 4GKW C

For maximum safety in the event of a fire: Our halogen-free electron beam cross-linked power cable is suitable for a wide range of applications with high nominal voltage in rail vehicles. The copper braiding provides ideal protection against electromagnetic interference. You can choose from 16 different conductor cross-sections up to 300 mm².

Power & Control

Special applications • Rolling stock

ÖLFLEX® TRAIN 4GKW C

Halogen-free, shielded single core cable for rail vehicles, electron beam cross-linked insulating materials, tested fire behavior according to EN 45545-2“.

Benefit

- For protection against damage to people and property.
- Compliant with standards for use in rail vehicles: fire safety and cable design requirements according to EN 50264-3-1, type OM; fire behaviour test according to EN 45545-2, hazard levels HL1, HL2 and HL3.
- Fire behaviour for rail vehicles compliant with BS 6853 and NFPA 130.
- Electron beam cross-linked insulating material enables use at low and high temperatures (-40°C to +125°C).
- Ideal protection against electromagnetic interference thanks to copper braiding with a high degree of coverage.
- Halogen-free and highly flame-retardant materials reduce the risk of flame propagation, high smoke density and toxicity of smoke gases in the event of a fire.

Application

- Versatile use in rail vehicles.
- Typical areas of application include switchgear, distributors, converters and braking systems etc.
- For fixed and protected installation.
- Can be used in dry, damp and especially in harsh and oily environments.
- The electron beam cross-linked polymer compound is highly resistant to oils, fuels, alkalis and acids.

Technical Data

Conductor stranding
Fine wired acc. to IEC 60228 class 5

Minimum bending radius
Fixed installation : ≤ 12 mm : 4 x OD / 3 x OD*, > 12 mm : 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, V_0 DC 2.7kV

Temperature range
Fixed installation : -40°C up to +125 °C max.
Occasional flexing : -35 °C up to +90 °C max.

LEGEND

NEW PRODUCT

PRODUCT EXTENSION

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
- Submersible use

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

EPIC®
Industrial connectors

UNITRONIC®
Data communication systems

SKINTOP®
Cable glands

ETHERLINE®
Data communication systems
for ETHERNET technology

SILVYN®
Protective cable conduit systems
and cable carrier systems

HITRONIC®
Optical transmission systems

FLEXIMARK®
Marking systems

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