









THE WORLD OF LAPP

Innovations 2014

































Legend for icons

INDUSTRIES

	Automation
	e-Mobility
	Food & Beverage
	Mechanical and Plant Engineering
	Oil & Gas
	Rail
	Solar Energy
	Wind Energy

PRODUCT CHARACTERISTICS

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

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.

▶ THIS CATALOGUE IS VALID FROM APRIL 2014.

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Brand quality from Stuttgart



ÖLFLEX® Power- and control cables

The world's first brand cable is available in the most varied of versions to match maximum requirements.

Key features: Oil-resistant, flexible and available to match almost any requirement or environmental condition – also free of halogens.

Fields of application: Multipurpose. Special variants are more and more in demand in the area of renewable energies.



EPIC® Industrial connectors

The brand for strong and reliable connections.

Key features: Robust square and circular connectors.

Flexible system consisting of housings, inserts, contacts and accessories – for every requirement, the tailor-made solution. Similarly, EPIC® SOLAR plugs for photovoltaics are also part of the extensive product range. **Fields of application:** Mechanical and systems engineering, drive technology, Automation.



UNITRONIC® Data communication systems

The ideal brand for fast, trend-setting and reliable data transfer. **Key features:** UNITRONIC® are not only data lines, but also bus lines, which together with active sensor/actuator modules or gateways provide a perfect system for automation. **Fields of application:** Measurement, control, regulation, bus or LAN networks.



SKINTOP® Cable glands

The brand for multipurpose cable entries in line with the following: quickly fastened, centred and hermetically sealed.

Key features: Large clamping areas, optimum strain reliefs, the most diverse of versions such as SKINTOP® CLICK, COLD or CUBE. **Fields of application:** Everywhere, where cables must be fastened reliably and quickly.



ETHERLINE® Data communication systems for ETHERNET-Technology

The brands for network solutions, safety systems and firewalls in the industrial networking sector. **Key features:** System solutions consisting hardware, software, consulting, network design and support. **Fields of application:** Factory automation, Renewable Energy, Building technology, Structured cabling.



SILVYN® Protective cable conduit- and cable carrier systems

The brand for all-round cable protection. **Key**

features: The product range includes SILVYN® cable protection hoses for perfect protection against mechanical and chemical loads, along with SILVYN® CHAIN energy supply chains for highly-dynamic applications. **Fields of application:** Everywhere that cables have to be additionally protected or routed.



HITRONIC® Optical transmission systems

The brand for split-second, fault-free, intercept-free data transport. **Key features:** The HITRONIC® product range includes fibre optic cables in the most varied of versions, along with suitable accessories such as splice boxes, wall distributors or couplings. **Fields of application:** Office and industrial sector, Renewable Energy.



FLEXIMARK® Marking systems

The brand for permanent, clearly-arranged cable markings. **Key features:** Comprehensive range –

from manual labelling solutions onto digital identification. Withstands high chemical, thermal and mechanical loads. **Fields of application:** All cable, single cores, control cabinets.

Reliably connecting the world

We want to help you become even more productive and successful. This is why we work tirelessly on optimising our processes. We do everything to make sure we always find the best solution for you and also provide you with quick, efficient and effective support.

No matter where you are – we are always by your side. Our plants, sales companies, partners and, above all, our competent teams of advisers ensure we offer you a comprehensive service on every continent. We do not simply distribute cable technology, we also

manufacture our products ourselves – which represents another advantage for you. As a manufacturer with 17 of our own production facilities, you will benefit from our expertise in the development, design and manufacture of cables, system products and cable accessories. Thanks to this expertise, we can guarantee that Lapp will provide you with the quality that you require and that you demand.

You can always rely on quality from Lapp – wherever you are in the world. This is also embodied by our strong brands.

17 Production plants

41 Sales companies

3,150 Employees

1 Innovation after another

152 Countries

100 Sales partners



www.lappgroup.com/worldwide

Power chain applications

Servo applications - power drive systems, approved



New

ÖLFLEX® SERVO FD 7DSL / ÖLFLEX® SERVO 7DSL

Hybrid cables



Info

- Suitable for Hiperface DSL® motor-feedback systems
- EMC-compliant

Benefits

- Less cables and reduced connection costs
- Only one connection line between drive and motor-feedback system
- Multi-standard = fewer part varieties = cost savings
- Easy to install

Application range

- Power drive systems in automation engineering
- Connecting cable between servo controller and motor
- In power chain applications (FD version) or for fixed installation
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines

Product features

- Low-adhesive surface
- Flame retardancy: UL/CSA: VW-1, FT1 IEC/EN: 60332-1-2
- Oil-resistant
- Low-capacitance design

Norm references / Approvals

- UL-AWM-Style 21223 (highly flexible use) UL-AWM-Style 2570 (fixed installation design) cRU AWM I/II A/B FT1
- Designs for power chain use: Travel distances up to 20m (horizontal)
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3
- UL File No. E63634

Design

- Design for highly flexible use: Polypropylen (PP) core insulation, PUR outer sheath, halogen-free
- Design for fixed installation: Polypropylen (PP) core insulation, PVC outer sheath
- Refer to data sheet (available upon request) for more details
- Outer sheath colour: Orange (RAL 2003)

Technical data



Classification

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



Core identification code

Power: black cores with marking U/L1/C/L+; V/L2; W/L3/D /L- and 1 green-yellow core
Signal pair: white, blue
Control pair (optional): black with white numbers 5,6



Specific insulation resistance

> 20 GOhm x cm



Minimum bending radius

For flexible use:
7.5 x outer diameter
Fixed installation: 5 x outer diameter



Nominal voltage

Power and control:
IEC: U₀/U: 600/1000 V
UL: 1000 V
Signal pair:
300 V



Test voltage

Power and control: 4 kV
Signal pair: 1kV



Protective conductor

G = with GN-YE protective conductor



Temperature range

Flexing: -40°C to +90°C (UL: +80°C)
Fixed installation: -40°C to +70°C (UL: +80°C)

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
Hybrid cables for power chain applications				
1023275	4 G 1,5 + (2 x 22AWG)	11.2	115.0	198
1023276	4 G 2,5 + (2 x 22AWG)	12.6	160.0	269
1023277	4 G 4 + (2 x 22AWG)	14.0	218.0	343
1023278	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.2	152.0	256
1023279	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.0	195.0	313
1023280	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15.8	268.0	407
Hybrid cables for fixed installation				
1023290	4 G 1,5 + (2 x 22AWG)	11.2	110.0	194
1023291	4 G 2,5 + (2 x 22AWG)	12.6	148.0	253
1023292	4 G 4 + (2 x 22AWG)	14.0	208.0	332
1023293	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.2	140.0	250
1023294	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.0	185.0	285
1023295	4 G 4 + (2 x 1,0) + (2 x 22AWG)	15.8	248.0	390

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
HIPERFACE DSL® is a registered trademark of SICK AG
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO FD 796 CP refer to main catalogue 2014/15 page 101

Accessories

- Protective cable conduit systems and cable carrier systems refer to main catalogue 2014/15
- Circular connectors refer to main catalogue 2014/15



New

OLFLEX® FD 855 P

TPE-insulated, numbered, PUR sheath, approved

LAPP KABEL STUÏTGART ÖLFLEX® FD 855 P CE

Info

- Extended Line for heavy duty in power chain applications
- Smallest bending radii of all FD cables
- UL/cUL approved for North America

Benefits

- Well-proven and reliable
- Various applications
- Suitable for all weather conditions
- Ideal for export-oriented machinery and equipment manufacturers

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Construction machinery
- Assembly lines, production lines, in all kinds of machines

Product features

- Low-adhesive surface
- Oil-resistant
- Halogen-free and flame-retardant (IEC 60332-1-2)
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for 5 up to 10 million bending/unbending cycles in the power chain

Norm references / Approvals

- USA: UL AWM Style 21576
Canada: cUL AWM Style I/II A/B FT2
- Based on VDE 0250 / 0285
- For horizontal travel distances up to 100m
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- PUR outer sheath, grey (RAL 7001)

Technical data

- Classification**
ETIM 5.0 Class-ID: EC000104
ETIM 5.0 Class-Description: Control cable
- Core identification code**
Black with white numbers acc. to VDE 0293-1
- Specific insulation resistance**
> 20 GOhm x cm
- Conductor stranding**
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
- Minimum bending radius**
For flexible use: 5 x outer diameter
Fixed installation: 3 x outer diameter
- Nominal voltage**
IEC U_c/U: 300/500 V
UL: 1000 V
- Test voltage**
3000 V
- Protective conductor**
G = with GN-YE protective conductor
X = without protective conductor
- Temperature range**
Flexing: -40°C to +80°C
Fixed installation: -50°C to +90°C
according to UL/AWM: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027530	2 X 0.5	5.1	10.0	34
0027531	3 G 0.5	5.5	14.0	40
0027532	5 G 0.5	6.6	24.0	55
0027533	6 G 0.5	7.1	29.0	63
0027534	7 G 0.5	7.7	34.0	76
0027535	12 G 0.5	9.1	58.0	114
0027536	18 G 0.5	10.9	86.0	165
0027537	20 G 0.5	11.5	96.0	180
0027538	25 G 0.5	13.4	120.0	219
0027540	30 G 0.5	13.6	144.0	251
0027541	36 G 0.5	14.7	173.0	290
0027545	2 X 0.75	5.6	14.0	42
0027546	3 G 0.75	6.0	22.0	50
0027547	4 G 0.75	6.7	29.0	60
0027548	5 G 0.75	7.3	36.0	71
0027549	7 G 0.75	8.8	50.0	99
0027550	12 G 0.75	10.3	86.0	158
0027551	18 G 0.75	12.4	130.0	219
0027552	20 G 0.75	13.3	144.0	240
0027553	25 G 0.75	15.5	180.0	309
0027555	36 G 0.75	16.9	259.0	411
0027560	2 X 1.0	6.0	19.0	50
0027561	3 G 1.0	6.5	29.0	61
0027562	4 G 1.0	7.2	38.0	70
0027563	5 G 1.0	7.8	48.0	93

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027564	7 G 1.0	9.5	67.0	122
0027565	12 G 1.0	11.2	115.0	196
0027566	18 G 1.0	13.7	173.0	274
0027567	20 G 1.0	14.4	192.0	300
0027568	25 G 1.0	16.8	240.0	385
0027570	30 G 1.0	17.0	288.0	444
0027571	36 G 1.0	18.6	346.0	516
0027575	2 X 1.5	6.7	29.0	68
0027576	3 G 1.5	7.3	43.0	83
0027586	4 G 1.5	8.0	58.0	100
0027577	5 G 1.5	9.0	72.0	128
0027578	7 G 1.5	10.7	101.0	177
0027579	12 G 1.5	12.7	173.0	275
0027580	18 G 1.5	15.2	259.0	405
0027582	25 G 1.5	18.8	360.0	565
0027584	30 G 1.5	18.8	432.0	652
0027585	36 G 1.5	20.6	518.0	759
0027587	41 G 1.5	22.4	614.0	978
0027370	3 G 2.5	8.9	72.0	121
0027371	4 G 2.5	9.9	96.0	163
0027372	5 G 2.5	11.0	120.0	196
0027373	7 G 2.5	13.4	168.0	266
0027374	12 G 2.5	15.8	288.0	446
0027375	18 G 2.5	18.9	432.0	665
0027376	25 G 2.5	23.5	600.0	929

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® CHAIN 896 P refer to main catalogue 2014/15 page 126

Accessories

- SILVYN® CHAIN cable protection and guiding systems

Power chain applications

Harsh conditions, approved



New

ÖLFLEX® FD 855 CP

Screened, TPE-insulated, numbered, TPE inner-/PUR outer sheath, approved



Info

- Extended Line for heavy duty in power chain applications
- EMC-compliant
- UL/cUL approved for North America

Benefits

- Well-proven and reliable
- Various applications
- Suitable for all weather conditions
- Ideal for export-oriented machinery and equipment manufacturers

Application range

- In power chains or moving machine parts
- Particularly in wet areas of machine tools and transfer lines
- Mechanical engineering
- Construction machinery
- Assembly lines, production lines, in all kinds of machines

Product features

- Low-adhesive surface
- Oil-resistant
- Halogen-free and flame-retardant (IEC 60332-1-2)
- In dry, damp or wet interiors with normal mechanical stress conditions
- Designed for 5 up to 10 million bending/unbending cycles in the power chain

Norm references / Approvals

- USA: UL AWM Style 21576 with add. VW-1
- Canada: cUL AWM Style I/II A/B FT1
- Based on VDE 0250 / 0285
- For horizontal travel distances up to 100m
- For use in power chains: Please comply with the assembly guidelines listed in Appendix T3

Design

- Extra-fine wire strand made of bare copper wires (class 6)
- Core insulation: TPE
- Cores twisted together in extremely short lay lengths
- Non-woven wrapping
- Inner sheath made of TPE
- Tinned-copper braiding
- PUR outer sheath, grey (RAL 7001)

Technical data



Classification

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



Core identification code

Black with white numbers acc. to VDE 0293-1



Specific insulation resistance

> 20 GOhm x cm



Conductor stranding

Extra-fine wire acc. to VDE 0295, class 6 / IEC 60228 class 6



Minimum bending radius

For flexible use:
7.5 x outer diameter
Fixed installation: 4 x outer diameter



Nominal voltage

IEC U₀/U: 300/500 V
UL: 1000 V



Test voltage

3000 V



Protective conductor

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



Temperature range

Flexing: -40°C to +80°C
Fixed installation: -50°C to +90°C
according to UL/AWM: -50°C to +80°C

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027605	2 X 0.5	6.7	32.0	67
0027606	3 G 0.5	7.1	40.0	79
0027607	5 G 0.5	8.2	53.0	107
0027608	6 G 0.5	8.7	59.0	121
0027609	7 G 0.5	9.5	67.0	132
0027610	12 G 0.5	10.9	97.0	190
0027611	18 G 0.5	12.9	131.0	245
0027612	20 G 0.5	13.5	156.0	281
0027613	25 G 0.5	15.6	190.0	367
0027615	30 G 0.5	15.8	222.0	408
0027616	36 G 0.5	16.9	251.0	459
0027620	2 X 0.75	7.2	40.0	79
0027621	3 G 0.75	7.6	47.0	96
0027622	4 G 0.75	8.3	58.0	112
0027623	5 G 0.75	8.9	65.0	126
0027624	7 G 0.75	10.6	85.0	165
0027625	12 G 0.75	12.1	127.0	231
0027626	18 G 0.75	14.6	198.0	330
0027628	25 G 0.75	17.7	259.0	459
0027630	36 G 0.75	19.5	348.0	605
0027635	2 X 1.0	7.6	45.0	93
0027636	3 G 1.0	8.1	55.0	109
0027637	4 G 1.0	8.8	68.0	126

Article number	Number of cores and mm ² per conductor	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
0027638	5 G 1.0	9.6	81.0	147
0027639	7 G 1.0	11.3	106.0	196
0027640	12 G 1.0	13.2	175.0	292
0027641	18 G 1.0	15.9	242.0	418
0027643	25 G 1.0	19.5	329.0	575
0027645	30 G 1.0	19.6	377.0	635
0027646	36 G 1.0	21.2	467.0	758
0027649	2 X 1.5	8.3	58.0	115
0027650	3 G 1.5	8.9	76.0	139
0027661	4 G 1.5	9.8	91.0	156
0027651	5 G 1.5	10.8	111.0	198
0027652	7 G 1.5	12.5	145.0	254
0027653	12 G 1.5	14.9	242.0	416
0027654	18 G 1.5	17.4	346.0	564
0027656	25 G 1.5	21.4	486.0	811
0027659	36 G 1.5	23.4	655.0	1066
0027380	3 G 2.5	10.7	110.0	194
0027381	4 G 2.5	11.7	136.0	234
0027382	5 G 2.5	12.8	180.0	293
0027383	7 G 2.5	15.6	246.0	418
0027384	12 G 2.5	18.0	377.0	629
0027385	18 G 2.5	21.5	569.0	912
0027386	25 G 2.5	26.5	765.0	1266

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Packaging size: coil ≤ 30 kg or ≤ 250 m, otherwise drum
Please specify the preferred type of packaging (e.g. 1 x 500 m drum or 5 x 100 m coils).
Photographs are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® PETRO FD 865 CP refer to main catalogue 2014/15 page 122

Accessories

- SILVYN® CHAIN cable protection and guiding systems



New

UNITRONIC® 300 STP

Screened control and signal cables with small cross sections and twisted pairs - UL/CSA listed



Benefits

- Overall braid minimises electrical interference
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)

Application range

- Control and signal cables for internal and external wiring
- Process control; electrical equipment; industrial machinery; low-voltage control interconnect
- Wiring of devices, machines and plants intended for export to the North American market or countries where UL-/CSA approved cables are used.
- For the North American market
- Suitable for outdoor use and direct burial

Product features

- PLTC for trays (24 AWG has no PLTC approval)
- PLTC-ER & ITC-ER (Exposed run) for AWG 18
- UV-resistant UL SUN RES
- Direct Burial for AWG 18 & 16

Norm references / Approvals

- UL: CMG per UL 444; PLTC-ER per UL 13; ITC-ER per UL 2250; AWM 2464
- NEC: meets NEC Art. 725 & 800, Class 1 Division 2 (PLTC only)
- Canada: c(UL) CMG FT4, CSA AWM I/II A/B FT1
- Oil-resistant according to UL OIL RES I

Design

- Fine-wire strand made of tinned-copper wires
- Core insulation made of PVC
- TP structure
- Overall foil tape wrapping, drain wire, tin-plated copper braiding (75 % coverage)
- Outer sheath made of special PVC compound
- Outer sheath colour: dark grey (RAL 7005)

Technical data

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

Core identification code

- Pair 1: black, red
- Pair 2: black, white
- Pair 3: black, green
- Pair 4: black, blue
- Pair 5: black, yellow
- Pair 6: black, brown
- Exception single-paired: black, white

Peak operating voltage (not for power applications)
300 V
UL/CSA: 300 V

Specific insulation resistance
> 20 GOhm x cm

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

Test voltage
1500 V

Temperature range
Occasional flexing: -25°C to +105°C
Fixed installation: -40°C to +105°C

Article number	Number of pairs and AWG size	Outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
UNITRONIC® 300 STP				
302402STP	2 x 2 x 24 AWG	6.5	25.5	59
302403STP	3 x 2 x 24 AWG	6.8	31.1	65
302406STP	6 x 2 x 24 AWG	8.7	49.7	106
302201STP	1 x 2 x 22 AWG	5.1	19.1	39
302203STP	3 x 2 x 22 AWG	7.7	38.2	71
302206STP	6 x 2 x 22 AWG	9.6	70.0	125
302002STP	2 x 2 x 20 AWG	9.4	47.7	128
302003STP	3 x 2 x 20 AWG	10.5	68.2	161
302006STP	6 x 2 x 20 AWG	13.3	106.5	321
301801STP	1 x 2 x 18 AWG	6.8	37.8	106
301802STP	2 x 2 x 18 AWG	10.7	66.2	122
301806STP	6 x 2 x 18 AWG	14.6	153.1	324

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.

Copper price basis: EUR 150/100kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: Coil 152 m; Drum 305 m

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

Similar products

- UNITRONIC® FD CP (TP) plus refer to main catalogue 2014/15 page 274

Accessories

- SKINTOP® MS-SC-M refer to main catalogue 2014/15 page 674
- DATA STRIP stripping tool refer to main catalogue 2014/15 page 911



New

S/A cable: Hygienic Design for Food&Beverage



Benefits

- Hygienic Design for ideal cleaning results
- Guaranteed density by meeting the highest protection class
- Stainless steel knurl to ensure protection against corrosion
- Bright colors to detect contamination quickly
- Standardised interfaces

Application range

- Food and beverage industry
- Automation technology
- Mechanical engineering
- Plant engineering

Product features

- 4-pin connectors with M12 thread to free conductor end
- Hygienic Design
- Stainless steel knurl (V4A)

Design

- Design: 4 x 0.34 mm² (42 x 0.1 mm)
- Core colours: brown(1), white(2), blue(3), black(4)
- Outer sheath: TPE, halogen-free
- Outer sheath colour: grey RAL 7035

Technical data

IP	Protection rating IP65/IP67/IP68/IP69K
0+T	Ambient temperature (operation) Plug/socket -40°C to +105°C Cable, fixed installation -40°C to +105°C
	Contact material CuSn
	Contact surface material Ni/Au
	Coding A-Standard
	Knurl material Stainless steel
	Gripping body material PP

Article number	Article designation	Number of pins	Length (m)	Nominal voltage U _N (V)	Nominal current I _N in (A)	PU
Straight connector						
22262040	AB-C4-M12MS-2,0TPE-HD	4	2.0	250	4	1
22262041	AB-C4-M12MS-5,0TPE-HD	4	5.0	250	4	1
22262060	AB-C4-M12MS-7,5TPE-HD	4	7.5	250	4	1
22262042	AB-C4-M12MS-10,0TPE-HD	4	10.0	250	4	1
22262061	AB-C4-M12MS-15,0TPE-HD	4	15.0	250	4	1
Straight socket						
22262043	AB-C4-2,0TPE-M12FS-HD	4	2.0	250	4	1
22262044	AB-C4-5,0TPE-M12FS-HD	4	5.0	250	4	1
22262062	AB-C4-7,5TPE-M12FS-HD	4	7.5	250	4	1
22262045	AB-C4-10,0TPE-M12FS-HD	4	10.0	250	4	1
22262063	AB-C4-15,0TPE-M12FS-HD	4	15.0	250	4	1
Angled socket						
22262046	AB-C4-2,0TPE-M12FA-HD	4	2.0	250	4	1
22262047	AB-C4-5,0TPE-M12FA-HD	4	5.0	250	4	1
22262064	AB-C4-7,5TPE-M12FA-HD	4	7.5	250	4	1
22262048	AB-C4-10,0TPE-M12FA-HD	4	10.0	250	4	1
22262065	AB-C4-15,0TPE-M12FA-HD	4	15.0	250	4	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Customised cable lengths are available upon request.
 Photographs are not to scale and do not represent detailed images of the respective products.
 For detailed technical information please refer to the data sheet
 For the UNITRONIC® field bus type code, please see table T6



New

Field mountable S/A connectors M12 for Food&Beverage



■ Benefits

- Stainless steel knurl to ensure protection against corrosion
- Quick and easy on-site assembly
- Creating individual cable lengths
- Standardised interfaces

■ Application range

- Food and beverage industry
- Mechanical engineering
- Automation technology
- Plant engineering

■ Product features

- 4-pin connector
- Stainless steel knurl (V4A)
- Screw termination
- Free of paint-wetting impairment substances

■ Technical data

- IP** Protection rating
IP67
- 0** Ambient temperature (operation)
Plug/socket
-40°C to +85°C
- Contact material**
CuZn (brass)
- Contact surface material**
Au (gold)
- Coding**
A-Standard
- Knurl material**
Stainless steel

Article number	Article designation	Number of pins	Min. conductor cross-section, flexible, in mm ²	Max. conductor cross-section, flexible, in mm ²	Min. cable diameter (mm)	Max. cable diameter (mm)	Nominal voltage U _N (V)	Nominal current I _N in (A)	PU	
Angled socket, screw connection										
22262051	AB-C4-M12FA-PG7-VA	4	0.25	0.75	4.0	6.0	250	4	1	
Straight socket, screw connection										
22262050	AB-C4-M12FS-PG7-VA	4	0.25	0.75	4.0	6.0	250	4	1	
Straight connector, screw connection										
22262049	AB-C4-M12MS-PG7-VA	4	0.25	0.75	4.0	6.0	250	4	1	

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
 Photographs are not to scale and do not represent detailed images of the respective products.
 For detailed technical information please refer to the data sheet
 For the UNITRONIC® field bus type code, please see table T6



New

S/A M12 control cabinet feed-through



Benefits

- Flexible connection solutions
- Simple installation in devices (e.g. cabinet)
- Standardised interfaces

Application range

- Automation technology
- Mechanical engineering
- Plant engineering
- Tool shop
- Automotive industry

Product features

- Screened version
- Bipolar/screw mounting
- For CANopen/DeviceNet applications (A-coded)
- For PROFIBUS applications (B-inverse coded)
- For PROFINET applications (D-coded)

Technical data

IP	Protection rating IP67
0+T	Ambient temperature (operation) Plug/socket -25°C to +85°C
	Contact material CuZn (brass)
	Contact surface material Au (gold)

Article number	Article designation	Number of pins	Nominal voltage U_N (V)	Nominal current I_N in (A)	PU
A coded					
22262020	AB-C5-DSI-M12MS-M12FS-M16-SH	5	24	4	1
B coded					
22262021	AB-C5-DSI-M12MSB-M12FSB-M16-SH	5	60	4	1
D coded					
22262022	AB-C4-DSI-M12FSD-M12FSD-M16-SH	4	60	4	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products. For detailed technical information please refer to the data sheet



New

Field mountable M12 POWER connectors

Info

- DC high-power connector - 60 VDC / 12 A



Benefits

- Compact and standardized M12 design saves costs
- Fault proof connection through M12 T coding of the connector face
- Low voltage drop
- High flexibility through on-site assembly
- Safety use in field environment by high protection class

Application range

- Automation technology
- Plant engineering, machinery manufacturing
- Tool shop
- Wiring of machines, tools, devices, appliances and control cabinets
- Suitable for use in measuring, control and regulating circuits

Product features

- Robust M12 circular connector with screw connection and knurled screw
- Screw-locking connection, to be connected to different conductor
- For cable outer diameter 8 - 10 mm
- 60 VDC / 12 A
- Contacts: 4

Suitable cables

- ÖLFLEX® FD 855 P refer to main catalogue 2014/15 page 120
- ÖLFLEX® FD 855 P: Example for harsh conditions

Technical data

IP	Protection rating IP67
0+/-	Ambient temperature (operation) Plug/socket -40°C to +85°C (derating must be observed - see data sheet)
	Contact material CuZn (brass)
	Contact surface material Au (gold)
	Coding M12 T - Power
	Knurl material CuZn (brass)
	Gripping body material PA
	Outer cable diameter 8 - 10 mm
⊘	Conductor cross-section Conductor cross section 0.75 mm ² - 1.5 mm ² (AWG 18 - AWG 16)

Article number	Article designation	Number of pins	Min. cable diameter (mm)	Max. cable diameter (mm)	Nominal voltage U _N (V)	Nominal current I _N in (A)	PU
Straight connector, screw connection, M12 (T-coded)							
22262010	AB-C4-M12MST-PG11	4	8.0	10.0	60	12	1
Angled connector, screw connection, M12 (T-coded)							
22262012	AB-C4-M12MAT-PG11	4	8.0	10.0	60	12	1
Straight socket, screw connection, M12 (T-coded)							
22262011	AB-C4-M12FST-PG11	4	8.0	10.0	60	12	1
Angled socket, screw connection, M12 (T-coded)							
22262013	AB-C4-M12FAT-PG11	4	8.0	10.0	60	12	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request. Photographs are not to scale and do not represent detailed images of the respective products.



New

M12 POWER panel mount connectors for front mounting



Info

- DC high-power connector - 60 VDC / 12 A

Benefits

- Compact and standardized M12 design saves costs
- Fault proof connection through M12 T coding of the connector face
- Low voltage drop
- Individual solutions in the field of M12 power supply
- Safety use in field environment by high protection class

Application range

- Automation technology
- Plant engineering, machinery manufacturing
- Tool shop
- Wiring of machines, tools, devices, appliances and control cabinets
- Suitable for use in measuring, control and regulating circuits

Product features

- M12 flush-type for front wall-mounting
- 2 various designs:
 - panel mount connector M20 (with screw clamp, position adjustable)
 - panel mount connector M16 (with connected 0.2 m PVC single wire)
- Contacts: 4
- 60 VDC / 12 A
- Contact durability: > 100

Design

- Valid for version with connected PVC single wire:
- Tinned-copper litz wires
- Design: 4 x AWG 16 (42 x 0.203 mm)
- Core insulation made of PVC
- No outer sheath

Suitable cables

- MULTI-STANDARD SC 2.1 refer to main catalogue 2014/15 page 198
- (MULTI-STANDARD SC 2.1.: Example for panel mount connectors with screw terminals)

Suitable connectors

- Field mountable M12 POWER connectors refer to main catalogue 2014/15 page 383

Technical data



Protection rating
IP67



Ambient temperature (operation)

Plug/socket
-40°C to +85°C
(derating must be observed - see data sheet)
Cable, fixed installation
-40°C to +90°C
(valid for design with connected PVC single wire)

Contact material

CuZn (brass)

Contact surface material

Au (gold)

Coding

M12 T - Power

Core colour

brown (1), white (2), blue (3), black (4)
(for panel mount connectors with connected single wire):

AWG

- PVC litz wire: AWG 16



Conductor cross-section

For screw clamp:
0.75 mm² - 1.5 mm²
(AWG 18 - AWG 16)

Article number	Article designation	Number of pins	Nominal voltage U _N (V)	Nominal current I _N in (A)	PU
M12 panel mount connector (male) with screw clamp, front mounting (thread: M20 x 1,5)					
22262014	AB-C4-M12MST-M20-PO	4	60	12	1
M12 panel mount connector (socket) with screw clamp, front mounting (thread: M20 x 1,5)					
22262015	AB-C4-M12FST-M20-PO	4	60	12	1
M12 panel mount connector (male) with assembled PVC single wires, l = 0.2 m, front mounting (thread: M16 x 1,5)					
22262016	AB-C4-M12MST-M16-0,2	4	60	12	1
M12 panel mount connector (socket) with assembled PVC single wires, l = 0.2 m, front mounting (thread: M16 x 1,5)					
22262017	AB-C4-M12FST-M16-0,2	4	60	12	1

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Other designs and lengths are available upon request.
Photographs are not to scale and do not represent detailed images of the respective products.
M16 or M20 locknuts not included in delivery

Accessories

- SKINDICHT® SM-M refer to main catalogue 2014/15 page 704



New

ETHERLINE® EC FLEX Cat.5e



Info

- For EtherCAT applications

Benefits

- Can be used for Industrial Ethernet in harsh industrial environments
- Can be used in dry or damp rooms
- Lower space requirement

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- For flexible applications (7-wire stranded conductor)
- Many applications with Industrial Ethernet, i.e. fixed installation and flexible use.
- For internal wiring of electric and electronic equipment in switch cabinets

Product features

- PUR (Polyurethane) Version with increased robustness, UV- resistance and halogen free
- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference

Norm references / Approvals

- Approval: UL/CSA type CMX in accordance with UL 444 and CSA C22.2 no. 214

Design

- Stranded tinned 7-wire conductor
- Core insulation: PE
- Insulation colour-codes: orange/white-orange; green/white-green
- Star quad
- SF/UTP: copper braid and foil screening as overall screening
- PVC or PUR jacket material
- Colour: green (based on RAL 6018)

Technical data

- Peak operating voltage**
max. 100 V (not for power applications)
- Minimum bending radius**
Fixed installation: 4 x outer diameter
Flexing: 8 x outer diameter
- Temperature range**
fixed installation
PVC: -30°C to +80°C
PUR: -40°C to +80°C
Flexing
PVC: -5°C to +50°C
PUR: -30°C to +50°C
- Characteristic impedance**
100 Ohm +/- 15%

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
PVC outer sheath					
2170430	ETHERLINE® Y EC FLEX Cat.5e	1 x 4 x AWG26/7	5.0	20.0	37
Outer sheath: PUR, halogen-free					
2170431	ETHERLINE® P EC FLEX Cat.5e	1 x 4 x AWG26/7	5.0	20.0	35

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

Accessories

- Field mountable S/A connectors M8 refer to main catalogue 2014/15 page 360
- Field-Terminable Connector RJ45 CAT.5e FM45 refer to main catalogue 2014/15 page 436
- Connector RJ45 Cat.5e for Profinet refer to main catalogue 2014/15 page 423
- BUS M12 connectors that can be assembled refer to main catalogue 2014/15



New

ETHERLINE® EC FD Cat.5e



Info

- For EtherCAT applications
- For highly flexible industrial applications

Benefits

- Can be used for Industrial Ethernet in harsh industrial environments
- Can be used in dry or damp rooms
- Lower space requirement

Application range

- Suitable for EtherCAT and EtherNet/IP applications
- For highly flexible applications (power chains, moving machine parts)
- Many applications with Industrial Ethernet, e.g. EtherCat, i.e. fixed installation, flexible and highly flexible use
- For internal wiring of electric and electronic equipment in switch cabinets

Product features

- PUR outer sheath, halogen-free
- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D
- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference

Norm references / Approvals

- UL/CSA type CMX in accordance with UL 444 and CSA C22.2 no. 214-02

Design

- AWG 26 (19-wire)
- Core insulation: PE
- Insulation colour-codes: orange/white-orange; green/white-green
- Star quad
- SF/UTP: copper braid and foil screening as overall screening
- Outer sheath: PUR compound, halogen-free
- Colour: green (based on RAL 6018)

Technical data



Minimum bending radius

Fixed installation: 4 x Outer diameter
Flexing: 8 x outer diameter



Temperature range

Fixed installation: -40°C to +80°C
Flexing: -30°C to +50°C



Characteristic impedance

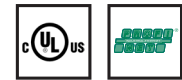
100 Ohm +/- 15%

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
2170432	ETHERLINE® P EC FD Cat.5e	1 x 4 x AWG26/19	5.0	20.0	35

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

Accessories

- Field mountable S/A connectors M8 refer to main catalogue 2014/15 page 360
- Field-Terminable Connector RJ45 CAT.5e FM45 refer to main catalogue 2014/15 page 436
- BUS M12 connectors that can be assembled refer to main catalogue 2014/15



New

ETHERLINE® PN Cat.6_A FLEX

Info

- For PROFINET applications with 4 pairs



Benefits

- For PROFINET applications type B
- Screened against interference
- Industrial use
- Can be used in dry or damp rooms

Application range

- For industrial secondary and tertiary cabling according to EN 50173-3 ISO/IEC 24702
- For flexible applications (7-wire stranded conductor)
- Plant engineering, machinery manufacturing
- Suitable for EtherCAT and EtherNet/IP applications

Product features

- CAT.6_A for flexible application, qualified for 10Gbit/s
- Meets the requirements according to CAT.6_A, ISO/IEC 11801 and EN 50173
- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference

Norm references / Approvals

- The cable is UL/CSA-approved (CMG)

Design

- Stranded 7-wire bare conductor
- Core insulation: PE
- S/FTP: copper braid as overall screening and pair screening with aluminium compound foil
- PVC or FRNC jacket material
- Colour: green (based on RAL 6018)

Technical data

- Peak operating voltage**
(not for power applications) 125 V
- Minimum bending radius**
Fixed installation: see data sheet
- Temperature range**
Operation: see data sheet
- Characteristic impedance**
100 ± 15 Ohm (> 1 MHz)

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
PVC outer sheath					
2170930	ETHERLINE PN Cat.6 _A Y FLEX	4 x 2 x AWG23/7	9.0	48.0	92
FRNC outer sheath					
2170931	ETHERLINE PN Cat.6 _A FRNC FLEX	4 x 2 x AWG23/7	9.0	48.0	87

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

Accessories

- Easy Connect RJ45 Modul Cat.6_A 10G refer to main catalogue 2014/15 page 437
- Connector RJ45 Cat.6_A fieldmountable refer to main catalogue 2014/15 page 423
- Connector industry RJ45 Cat.6_A 10 IP68 refer to main catalogue 2014/15 page 424
- DATA STRIP stripping tool refer to main catalogue 2014/15 page 911



New

ETHERLINE® FIRE Cat.5e PH60

LAPP KABEL STUTTGART ETHERLINE® FIRE Cat.5e 4x2xAWG23/1

Benefits

- Ensures that the cable can still transmit data during and after a fire (according to EN50200)
- High-quality, double screening ensures high transmission reliability in areas with electromagnetic interference

Application range

- In industrial areas that use fire as a tool
- Highly combustible or fire-prone areas
- For fixed installation
- For indoor use

Product features

- Fire behaviour:
 - Halogen-free (IEC 60754-1 & EN50267-2-1)
 - Flame-retardant (IEC 60332-1)
 - Fire retardant (IEC 60332-3-24)
 - Low smoke density (IEC 61034-2)
 - Circuit integrity (EN50200); 60 min

- Meets the requirements according to CAT.5e, ISO/IEC 11801 and EN 50173, Class D

Design

- Solid, bare, single-wire copper conductor
- Core insulation: Based on Polyolefin
- Each insulation will be wrapped with a special tape (anti-fire barrier)
- Twisting: 2 twisted-pair cores, stranding from 4 pairs
- SF/UTP: copper braid and foil screening as overall screening
- Halogen-free and flame-retardant FRNC outer sheath, colour: red (similar to RAL3000)



Info

- System integrity for at least 60 minutes in the event of fire

Technical data

- Peak operating voltage** (not for power applications) 125 V
- Minimum bending radius**
Fixed installation: 15 x cable diameter
- Temperature range**
Operation: -20 °C to +70 °C
- Characteristic impedance**
100 Ohm +/- 15%

Article number	Article designation	Number of pairs and AWG per conductor	Max. outer diameter (mm)	Copper index (kg/km)	Weight (kg/km)
2170904	ETHERLINE® FIRE Cat.5e PH60	4 x 2 x AWG23/1	8.3	24.0	75

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



New

Connector RJ45 Cat.6_A FM for FD-cables



Technical data

- IP Protection rating**
IP 20
- Ambient temperature (operation)**
-40°C to +70°C



Info

- CAT.6_A qualified for 10Gbit/s
- Specifically for cables for drag chain applications with 19-wire cores

Product features

- Qualified for 10 Gigabit Ethernet
- Housing: zinc die-casting, grey
- By a multi-level relief setting the connector can accommodate a cable diameter from 5,0 mm up to 9,0 mm

- Suitable for stranded cores with AWG27/7 -24/7 and for solid conductors with AWG24/1
- Suitable for use in industrial applications
- Available with colour code T568A or T568B

Norm references / Approvals

- UL-listed (E-File E353543)
- Field assembly Industrial Ethernet connector, RJ45 according to IEC 60603-7-51

Article number	Article designation
RJ45 connector acc. to T568A 21700615	EPIC DATA ED-IE-AX-6 _A -A-20-FD-FC
RJ45 connector acc. to T568B 21700616	EPIC DATA ED-IE-AX-6 _A -B-20-FD-FC

Photographs are not to scale and do not represent detailed images of the respective products.
10 pieces in one blister

New

Connector M12 x-coded Cat.6_A 10G fieldmountable



Info

- CAT.6_A qualified for 10Gbit/s
- Installation without tools



Product features

- Field assembly Industrial Ethernet connector, M12 "X"-coded according to IEC 61076-2-109
- Qualified for 10 Gigabit Ethernet
- Suitable for use in industrial applications
- Robust and vibrations-resistant
- Housing: zinc die-casting, grey
- Piercing contacts for conductor diameter of AWG27/7 - AWG22/7 and AWG24/1 - AWG22/1; max. outer diameter 10 mm
- Toolfree installation, small and compact design

Norm references / Approvals

- Acc. to standard IEC 61076-2-109
- Data transmission is conform to category Cat.6_A acc. to ISO/IEC 11801:2010

Technical data

- IP Protection rating**
IP 67
- Ambient temperature (operation)**
Plug/socket
-25°C to +80°C

Article number	Article designation
M12 x-coded male connector straight 21700602	ED-IE-AX-M12X-6A-67-FC
M12 x-coded female connector straight 21700621	ED-IE-AX-M12XF-6 _A -67-FC
M12 x-coded female connector straight for wall mounting 21700622	ED-IE-AX-M12XF-RM-6 _A -67-FC

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

New

IE flush-type connector M12 X-coded Cat.6_A



Info

- CAT.6_A qualified for 10Gbit/s



Product features

- Field assembly Industrial Ethernet flange, M12 "X"-coded according to IEC 61076-2-109
- Designs for front and rear wall-mounting

- M12 panel feed-throughs for direct connecting with PCB
- Can be used for Industrial Ethernet in harsh industrial environments
- Housing: zinc die-casting, grey

Norm references / Approvals

- Acc. to standard IEC 61076-2-109
- Meets the requirements according to CAT.6_A, ISO/IEC 11801 and EN 50173

Article number	Article designation
M12 flush-type connector socket for front-mounting 21700617	ED-IE-M12F-X-FM
M12 flush-type connector socket for rear-mounting (fitting nut included) 21700618	ED-IE-M12F-X-RM

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



New

EPIC® H-BE 6 Push-In termination



Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

Suitable housing

- EPIC® ULTRA H-B 6 refer to main catalogue 2014/15 page 552
- EPIC® H-B 6 Housings refer to main catalogue 2014/15 page 557
- EPIC® QUICK & EASY Mounting system refer to www.lappgroup.com
- Refer to Selection Table A10 to select the required inserts and housings

Benefits

- Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- Standard inserts with screw, crimp cage clamp and Push-In termination
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents

Application range

- Mechanical engineering
- Light & sound technology
- Plastics industry

Technical data

Rated voltage (V)

IEC: 500 V
UL: 600 V
CSA: 600 V

Rated impulse voltage

6 kV

Rated current (A)

IEC: 16 A
UL: 13 A
CSA: 13 A

Degree of soiling

3

Contact resistance

< 2 mOhm

Contacts

Copper alloy, hard silver-plated

Number of contacts

6 + PE

Termination methods

Push-In termination: 0.14 - 2.5mm²



Temperature range

-40°C to +100°C,
short-term up to +125°C

Article number	Article	Version	Wire protection	Contacts	Pieces / PU
H-BE 6 Push-In termination					
44423200	EPIC® H-BE 6 SP	male	yes	1 - 6	10
44423201	EPIC® H-BE 6 BP	female	yes	1 - 6	10

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



New

EPIC® H-BE 10 Push-In termination



Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

Suitable housing

- EPIC® ULTRA H-B 10 refer to main catalogue 2014/ 15 page 554
- EPIC® H-B 10 Housings refer to main catalogue 2014/ 15 page 563
- EPIC® QUICK & EASY Mounting system refer to www.lappgroup.com
- Refer to Selection Table A10 to select the required inserts and housings

Benefits

- Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- Easy dismantling and insertion of wires by pushing the orange button
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- Standard inserts with screw, crimp cage clamp and Push-In termination

Application range

- Mechanical engineering
- Light & sound technology
- Plastics industry

Technical data

Rated voltage (V)

IEC: 500 V
UL: 600 V
CSA: 600 V

Rated impulse voltage

6 kV

Rated current (A)

IEC: 16 A
UL: 13 A
CSA: 13 A

Degree of soiling

3

Contact resistance

< 2 mOhm

Contacts

Copper alloy, hard silver-plated

Number of contacts

10 + PE

Termination methods

Push-In termination: 0.14 - 2.5mm²

Temperature range

-40°C to +100°C,
short-term up to +125°C



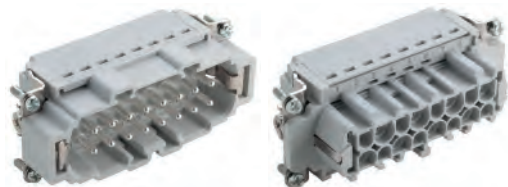
Article number	Article	Version	Wire protection	Contacts	Pieces / PU
H-BE 10 Push-In termination					
44423202	EPIC® H-BE 10 SP	male	yes	1 - 10	10
44423203	EPIC® H-BE 10 BP	female	yes	1 - 10	10

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



New

EPIC® H-BE 16 Push-In termination

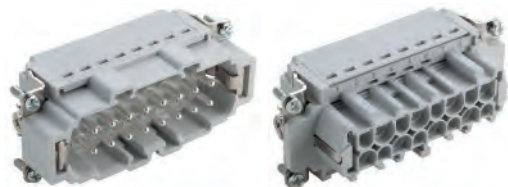


Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

New

EPIC® H-BE 32 Push-In termination



Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

Suitable housing

EPIC® H-BE 16 Push-In termination

- EPIC® ULTRA H-B 16 refer to main catalogue 2014/15 page 555
- EPIC® H-B 16 Housings refer to main catalogue 2014/15 page 577
- EPIC® QUICK & EASY Mounting system refer to www.lappgroup.com

EPIC® H-BE 32 Push-In termination

- EPIC® H-B 32 Housings refer to www.lappgroup.com
- Refer to Selection Table A10 to select the required inserts and housings

Benefits

- Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- Standard inserts with screw, crimp cage clamp and Push-In termination

Application range

- Mechanical engineering
- Light & sound technology
- Plastics industry

Technical data

Rated voltage (V)

IEC: 500 V
UL: 600 V
CSA: 600 V

Rated impulse voltage

6 kV

Rated current (A)

IEC: 16 A
UL: 13 A
CSA: 13 A

Degree of soiling

3

Contact resistance

< 2 mOhm

Contacts

Copper alloy, hard silver-plated

Number of contacts

EPIC® H-BE 16 Push-In termination
16 + PE
EPIC® H-BE 32 Push-In termination
32 + PE

Termination methods

Push-In termination: 0.14 - 2.5mm²



Temperature range

-40°C to +100°C,
short-term up to +125°C

Article number	Article	Version	Wire protection	Contacts	Pieces / PU
H-BE 16 Push-In termination					
44423204	EPIC® H-BE 16 SP	male	yes	1 - 16	5
44423205	EPIC® H-BE 16 BP	female	yes	1 - 16	5
H-BE 32 Push-In termination					
44423208	EPIC® H-BE 16 SP 17-32	male	yes	17 - 32	5
44423204	EPIC® H-BE 16 SP	male	yes	1 - 16	5
44423209	EPIC® H-BE 16 BP 17-32	female	yes	17 - 32	5
44423205	EPIC® H-BE 16 BP	female	yes	1 - 16	5

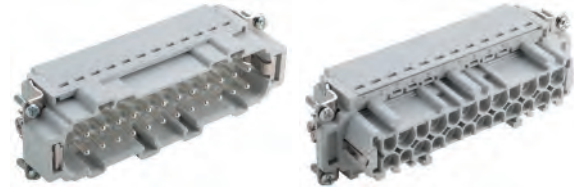
Photographs are not to scale and do not represent detailed images of the respective products.

For current information see: www.lappgroup.com



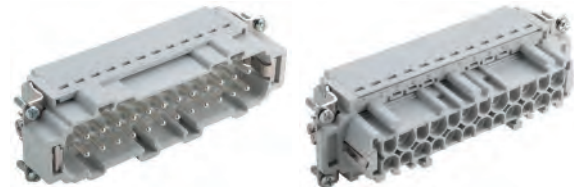
New

EPIC® H-BE 24 Push-In termination



New

EPIC® H-BE 48 Push-In termination



Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

Info

- Push-In version - fast and easy tool free connection technology
- Screw, crimp, cage clamp and Push-In version - freely combinable
- Multifunctional insert for versatile applications

Suitable housing

EPIC® H-BE 24 Push-In termination

- EPIC® ULTRA H-B 24 refer to main catalogue 2014/15 page 556
- EPIC® H-B 24 Housings refer to main catalogue 2014/15 page 591
- EPIC® QUICK & EASY Mounting system refer to www.lappgroup.com

EPIC® H-BE 48 Push-In termination

- EPIC® H-B 48 Housings refer to www.lappgroup.com
- Refer to Selection Table A 10 to select the required inserts and housings

Benefits

- Insertion of cores with end sleeves in Push-In inserts gives mounting safety and time saving without any tools
- Easy dismantling and insertion of wires by pushing the orange button
- Test socket for standard 2mm test tip for easy testing of Push-In inserts
- The EPIC® H-BE series is suitable for applications that require a reliable connection when working with high voltages and currents
- Standard inserts with screw, crimp cage clamp and Push-In termination

Application range

- Mechanical engineering
- Light & sound technology
- Plastics industry

Technical data

Rated voltage (V)

IEC: 500 V
UL: 600 V
CSA: 600 V

Rated impulse voltage

6 kV

Rated current (A)

IEC: 16 A
UL: 13 A
CSA: 13 A

Degree of soiling

3

Contact resistance

< 2 mOhm

Contacts

Copper alloy, hard silver-plated

Number of contacts

EPIC® H-BE 24 Push-In termination
24 + PE
EPIC® H-BE 48 Push-In termination
48 + PE

Termination methods

Push-In termination: 0.14 - 2.5mm²



Temperature range

-40°C to +100°C,
short-term up to +125°C

Article number	Article	Version	Wire protection	Contacts	Pieces / PU
H-BE 24 Push-In termination					
44423206	EPIC® H-BE 24 SP	male	yes	1 - 24	5
44423207	EPIC® H-BE 24 BP	female	yes	1 - 24	5
H-BE 48 Push-In termination					
44423210	EPIC® H-BE 24 SP 25-48	male	yes	25 - 48	5
44423206	EPIC® H-BE 24 SP	male	yes	1 - 24	5
44423211	EPIC® H-BE 24 BP 25-48	female	yes	25 - 48	5
44423207	EPIC® H-BE 24 BP	female	yes	1 - 24	5

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



New

EPIC® M12 POWER panel base



Info

- Simply screw in given metric thread

Benefits

- Standard M20 Version with screw contacts
- Small M16 Version with preharnessed wires
- High performance gold plated contacts

Application range

- Power Supply for small devices
- For 1-phase cables or 3-phase without N

Technical data

Rated voltage (V)

630 V

Rated impulse voltage

6 kV

Rated current (A)

12 A

Degree of soiling

3

Contact resistance

< 3 mOhm

Number of contacts

3 + PE
S-coded

Termination methods

Screw termination: 0.75 - 1.5mm²
with 0,2m PP-wire, 4x1.5mm²



Protection rating

IP 67

Cycle of mechanical operation

100



Temperature range

-40 °C to +85 °C

Article number	Article	Fastening type	Pieces / PU
44423144	Panel base with pin contacts	M20	1
44423145	Panel base with socket contacts	M20	1
44423146	Panel base with pin contacts	M16 (with wires 4xAWG16/0.2m)	1
44423147	Panel base with socket contacts	M16 (with wires 4xAWG16/0.2m)	1

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



New

EPIC® M12 POWER cable connector



Info

- Smallest Power connector

Benefits

- To terminate only screw driver is necessary
- Small and space-saving for narrow available space
- High performance gold plated contacts

Application range

- Power Supply for small devices
- For 1-phase cables or 3-phase without N

Technical data

Rated voltage (V)

630 V

Rated impulse voltage

6 kV

Rated current (A)

12 A

Degree of soiling

3

Contact resistance

< 3 mOhm

Number of contacts

3 + PE
S-coded

Termination methods

Screw termination: 0.75 - 1.5mm²



Protection rating

IP 67

Cycle of mechanical operation

100



Temperature range

-40 °C to +85 °C

Article number	Article	Cable clamping range (mm)	Pieces / PU
44423140	Cable coupler with pin contacts	8 - 10	1
44423141	Cable connector with socket contacts	8 - 10	1
44423142	Cable coupler with pin contacts, angled	8 - 10	1
44423143	Cable connector with socket contacts, angled	8 - 10	1

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

Global player SKINTOP® expands its approval standards!

New IECEx certifications for SKINTOP® cable glands in potentially explosive atmospheres

The SKINTOP® ATEX cable glands made of brass and polyamide are tested and certified in accordance with the new amended ATEX standards (EN 60079-0:2011, EN 60079-31:2008 and EN 60079-7:2006).

These approvals enable a worldwide export and use outside the scope of Europe standards e.g in Oceania, Asia and America.

Cable glands



SKINTOP® K(R)-M ATEX plus
Certificate No.: IECEx IBE 13.0027X



SKINTOP® MS(R)-M ATEX/MS(R)-M ATEX BRUSH
Certificate No.: IECEx IBE 13.0026X



Enlargers/Reducers



SKINDICHT® ME-M ATEX/MR-M ATEX
Certificate No.: IECEx IBE 13.0028X



Blind plugs



SKINDICHT® BL-M ATEX
Certificate No.: IECEx IBE 13.0029X

Halogen free polyamide cable gland SKINTOP® ST-HF-M

Newly approved for railway applications according to DIN EN 45545-2

Cable glands



SKINTOP® ST-HF-M

Counter nut



SKINTOP® GMP-HF-M

Note

- DIN EN 45545-2 - Railway applications - Fire protection on railway vehicles
- Hazard Level HF3 (highest hazard level)
- Flammability according to UL 94 V-0
- Completely halogen free (Cable gland body and sealing elements)



New

SKINTOP® CUBE SORTIMO® T-BOXX



Info

- Innovative multi-cable bushing system with variable clamping ranges for high flexibility in assembling.
- When disassembling, the frame can remain on the housing and the plug-in module remains securely on the cable.
- Optimal order in the practical SORTIMO® T-BOXX

Benefits

- Variable range of clamping force
- Vibration-safe module fixation
- Strain relief
- Oil resistance
- Simplified servicing due to easy assembling and disassembling

Application range

- For installation of harnessed cables
- Used in areas where cables and wires need to be safely inserted into housings
- Apparatus and switch cabinet construction
- Electronic installations
- Automation technology

Product features

- Optimal order in the practical SORTIMO® T-BOXX
- Small packaging unit, wide variety
- Light and robust, shock- and impact-resistant polypropylene case
- Two sturdy locks - ideal for mounting use e.g. building site

Design

- The SKINTOP® CUBE system consists of the SKINTOP® CUBE FRAME and the clip modules SKINTOP® CUBE MODULE.
- For cut-outs for 16-pin industrial connectors (36 x 86 mm)
- For cut-outs for 24-pin industrial connectors (36 x 112 mm)

Included

- SKINTOP® CUBE FRAME including mounting material
- Delivery in SORTIMO® T-BOXX
- Assembly instructions
- Screwdriver
- SKINTOP® CUBE FRAME 16
2 Pcs. (PN 52220000)
- SKINTOP® CUBE FRAME 24
2 Pcs. (PN 52220001)
- SKINTOP® CUBE MODULE 20x20 BLIND
5 Pcs. (PN 52220004)
- SKINTOP® CUBE MODULE 20x20 SMALL
5 Pcs. (PN 52220002)
- SKINTOP® CUBE MODULE 20x20 LARGE
5 Pcs. (PN 52220003)
- SKINTOP® CUBE MODULE 20x20 AS-I BUS
5 Pcs. (PN 52220040)
- SKINTOP® CUBE MODULE 40x40 SMALL
5 Pcs. (PN 52220005)
- SKINTOP® CUBE MODULE 40x40 LARGE
5 Pcs. (PN 52220006)
- SKINTOP® CUBE MODULE 40x40 BLIND
5 Pcs. (PN 52220007)

Technical data



Classification

ETIM 5.0 Class-ID: EC000240
ETIM 5.0 Class-Description:
Cable entry system



Approvals

UL pending



Material

Frame: glass fibre-reinforced polyamide
Frame seal: CR
Clip module: special polypropylene
Clip module seal: LSE 2



Protection rating

IP 64
NEMA 12



Temperature range

-20°C to +80°C

Article number	Article designation / size	Pieces / PU
53110031	SKINTOP® CUBE SORTIMO® T-BOXX	1

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

Similar products

- SKINDICHT® CABLEFIX cable bushing system refer to main catalogue 2014/15

Accessories

- Kraftform Kompakt® 10 refer to main catalogue 2014/15
- FLEXIMARK® LB-10 W refer to main catalogue 2014/15



New

SKINTOP® CUBE MULTI

Info

- Push the cable through the gel membrane and connect directly
- Huge potential of savings through quick installation



Benefits

- Large, variable clamping ranges by elastic gel technology at the sealing element (innovative membrane technology)
- Easy installation by high packing density
- Optimum strain relief on the entire cable bundle
- Simplified servicing due to easy assembling and disassembling
- Not used holes remain securely sealed

Application range

- Used in areas where cables and wires need to be safely inserted into housings
- For installation of not harnessed cables and media hoses
- For cut-outs for 24-pin industrial connectors (36 x 112 mm)
- Apparatus and switch cabinet construction
- Automation technology

Product features

- SKINTOP® CUBE MULTI Version 1
- **Number of cable bushings -** 9 x 3-6 mm clamping range
 - 9 x 6-9 mm clamping range
 - 2 x 9-13 mm clamping range
 - 1 x 13-16 mm clamping range
- SKINTOP® CUBE MULTI Version 2
- **Number of cable bushings -** 23 x 6-9 mm clamping range

Design

- The system consists of SKINTOP® CUBE FRAME and a gel insert SKINTOP® CUBE MULTI.
- Removal of the gel insert by opening the holder

Note

- For better strain relief, the cable bundle can be fixed with help of a cable tie

Included

- SKINTOP® CUBE FRAME including mounting material

Technical data

Classification
ETIM 5.0 Class-ID: EC000240
ETIM 5.0 Class-Description: Cable entry system

Approvals
DIN VDE
UL pending

Note
Colour: black
Individual hole configuration available on request

Material
Frame: Glass fiber reinforced polyamide
Frame seal: CR
Gel insert: PC / Gel
Fire behaviour according to UL 94V-2

Protection rating
IP 65

Temperature range
-30°C to +100°C

Article number	Article designation / size	Max. number of executions	Number of cables x clamping range	Pieces / PU
SKINTOP® CUBE Frame				
52220001	SKINTOP® CUBE FRAME 24			1
SKINTOP® CUBE MULTI Gel-insert				
52220050	SKINTOP® CUBE MULTI Version 1	21	9 x 3-6 mm; 9 x 6-9 mm; 2 x 9-13 mm; 1 x 13-16 mm	1
52220053	SKINTOP® CUBE MULTI Version 2	23	23 x 6-9 mm	1
SKINTOP® CUBE MULTI Gel-insert incl. frame				
52220056	SKINTOP® CUBE MULTI Version 1 incl. frame	21	9 x 8,00mm; 9 x 11,00mm; 2 x 15,00mm; 1 x 18,00mm	1
52220057	SKINTOP® CUBE MULTI Version 2 incl. frame	23	23 x 6-9 mm	1

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

Similar products

- SKINDICHT® CABLEFIX cable bushing system refer to main catalogue 2014/15
- SKINTOP® CUBE refer to main catalogue 2014/15

Accessories

- Kraftform Kompakt® 10 refer to main catalogue 2014/15
- FLEXIMARK® LB-10 W refer to main catalogue 2014/15



Liquid-tight conduits

Impermeable conduits



New

SILVYN® COMPACT M



Info

- Space-saving due to compact dimensions

Benefits

- Space-saving application
- For high mechanical stress
- High tensile strength
- Corrosion-resistant

Application range

- In combination with protective conduit:
- SILVYN® HTDL/EF/OR/HCX/HFX/FG HIPROJACKET
- Mechanical engineering
- Railway applications

Design

- Metric connection thread
- Hexagonal collar
- Threaded sleeve
- Cap nut

Suitable conduits

- SILVYN® HTDL refer to main catalogue 2014/15 page 837
- SILVYN® EF refer to main catalogue 2014/15 page 838
- SILVYN® OR refer to main catalogue 2014/15 page 838
- SILVYN® HXC refer to main catalogue 2014/15 page 839
- SILVYN® HFX refer to main catalogue 2014/15 page 839
- SILVYN® HIPROJACKET refer to main catalogue 2014/15 page 836

Technical data

- On request**
With 45° elbow
- Material**
Body: nickel-plated brass
Sealing: polyamide
O-ring: NBR
- Protection rating**
IP 67
- Temperature range**
-45°C to +105°C

Article number	Article designation	Suitable for SILVYN® HTDL/EF/OR/HCX/HFX	Pieces / PU
SILVYN® COMPACT M			
61803800	16 x 1,5	3/8"	10
61803801	20 x 1,5/1	3/8"	10
61803802	20 x 1,5/2	1/2"	10
61803803	25 x 1,5	3/4"	5
61803804	32 x 1,5	1"	5
61803805	40 x 1,5	1 1/4"	5
61803806	50 x 1,5	1 1/2"	2
61803807	63 x 1,5	2"	2
SILVYN® COMPACT 90° M			
61803808	16 x 1,5	3/8"	10
61803809	20 x 1,5/1	3/8"	10
61803810	20 x 1,5/2	1/2"	10
61803811	25 x 1,5	3/4"	5
61803812	32 x 1,5	1"	5
61803813	40 x 1,5	1 1/4"	5
61803814	50 x 1,5	1 1/2"	2
61803815	63 x 1,5	2"	2

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

Accessories

- SKINDICHT® SM-M refer to main catalogue 2014/15 page 704
- SILVYN® HIPROJACKET CR refer to main catalogue 2014/15 page 836



New

SILVYN® COMPACT PG



Info

- Space-saving due to compact dimensions



■ **Benefits**

- Space-saving application
- For high mechanical stress
- High tensile strength
- Corrosion-resistant

■ **Application range**

- In combination with protective conduit:
- SILVYN® HTDL/EF/OR/HCX/HFX/FG HIPROJACKET
- Mechanical engineering
- Railway applications

■ **Design**

- PG connection thread
- Hexagonal collar
- Threaded sleeve
- Cap nut

■ **Suitable conduits**

- SILVYN® HTDL refer to main catalogue 2014/15 page 837
- SILVYN® EF refer to main catalogue 2014/15 page 838
- SILVYN® OR refer to main catalogue 2014/15 page 838
- SILVYN® HCX refer to main catalogue 2014/15 page 839
- SILVYN® HFX refer to main catalogue 2014/15 page 839
- SILVYN® HIPROJACKET refer to main catalogue 2014/15 page 836

■ **Technical data**

- Material**
Body: nickel-plated brass
Sealing: polyamide
O-ring: NBR
- Protection rating**
IP 67
- Temperature range**
-45°C to +105°C

Article number	Article designation	Suitable for SILVYN® HTDL/EF/OR/HCX/HFX	Pieces / PU
SILVYN® COMPACT PG			
61803816	PG 11	3/8"	10
61803817	PG 13,5	3/8"	10
61803818	PG 16	1/2"	10
61803819	PG 21	3/4"	5
61803820	PG 29	1"	5
61803821	PG 36	1 1/4"	5
61803822	PG 42	1 1/2"	2
61803823	PG 48	2"	2
SILVYN® COMPACT 90° PG			
61803824	PG 11	3/8"	10
61803825	PG 13,5	3/8"	10
61803826	PG 16	1/2"	10
61803827	PG 21	3/4"	5
61803828	PG 29	1"	5
61803829	PG 36	1 1/4"	5
61803830	PG 42	1 1/2"	2
61803831	PG 48	2"	2

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

■ **Accessories**

- SKINDICHT® SM-M refer to main catalogue 2014/15 page 704
- SILVYN® HIPROJACKET CR refer to main catalogue 2014/15 page 836

Liquid-tight conduits

Impermeable conduits



New

SILVYN® COMPACT NPT



Info

- Space-saving due to compact dimensions

■ **Benefits**

- Space-saving application
- For high mechanical stress
- High tensile strength
- Corrosion-resistant

■ **Application range**

- In combination with protective conduit:
- SILVYN® HTDL/EF/OR/HCX/HFX/FG HIPROJACKET
- Mechanical engineering
- Railway applications

■ **Design**

- NPT connection thread
- Hexagonal collar
- Threaded sleeve
- Cap nut

■ **Suitable conduits**

- SILVYN® HTDL refer to main catalogue 2014/15 page 837
- SILVYN® EF refer to main catalogue 2014/15 page 838
- SILVYN® OR refer to main catalogue 2014/15 page 838
- SILVYN® HCX refer to main catalogue 2014/15 page 839
- SILVYN® HFX refer to main catalogue 2014/15 page 839
- SILVYN® HIPROJACKET refer to main catalogue 2014/15 page 836

■ **Technical data**



Material

Body: nickel-plated brass
Sealing: polyamide
O-ring: NBR



Protection rating

IP 67



Temperature range

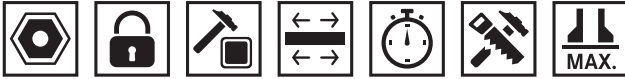
-45°C to +105°C

Article number	Article designation	Suitable for SILVYN® HTDL/EF/OR/HCX/HFX	Pieces / PU
SILVYN® COMPACT NPT			
61803832	1/2"	3/8"	10
61803833	1/2"	1/2"	10
61803834	3/4"	3/4"	5
61803835	1"	1"	5
61803836	1 1/4"	1 1/4"	2
61803837	1 1/2"	1 1/2"	2
61803838	2"	2"	2
SILVYN® COMPACT 90° NPT			
61803839	1/2"	3/8"	10
61803840	1/2"	1/2"	10
61803841	3/4"	3/4"	5
61803842	1"	1"	5
61803843	1 1/4"	1 1/4"	2
61803844	1 1/2"	1 1/2"	2
61803845	2"	2"	2

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

■ **Accessories**

- SKINDICHT® SM-M refer to main catalogue 2014/15 page 704
- SILVYN® HIPROJACKET CR refer to main catalogue 2014/15 page 836



New

SILVYN® MSK-M ATEX



Info

- IECEx approval worldwide

Benefits

- Optimum cable and conduit strain relief
- Maximum cable sealing
- Fast and easy assembly
- Wide clamping range
- Anti-turn protection

Application range

- Devices, machines and apparatus of enhanced safety protection type "e"
- Chemical and petrochemical industry
- Plant engineering
- Used in areas where cables and wires need additional mechanical protection

Product features

- Combination of SILVYN® and SKINTOP®

Design

- SILVYN® conduit connection via inner sleeve and cap nut
- Metric connection thread acc. to EN 50262

Suitable conduits

- SILVYN® AS refer to main catalogue 2014/15 page 819
- SILVYN® EDU-AS refer to main catalogue 2014/15 page 821
- SILVYN® EMC AS-CU refer to main catalogue 2014/15 page 822

Technical data

Approvals
 SILVYN® MSK-M 16x1,5 AS ATEX
 IBExU06ATEX1012X
 II 2G EEx eII
 II 1D EEx eII
 CE 0637 Ex II 2G
 Ex eb IIC Ex II 1D
 Ex ta IIIC
 IECEx IBE 13.0033X

Material
 Basis type:
 Body: nickel-plated brass
 Conduit connector seal: CR/NBR
 Tube seal: TPE

Tests
 DIN EN 60079-0
 DIN EN 60079-7

Protection rating
 Cable: IP 68
 Conduit:
 IP 40 with SILVYN® AS, EDU-AS,
 EMC AS-CU

Temperature range
 -30°C to +90°C

Article number	Article designation	Suitable for conduit OØ (mm)	Pieces / PU
SILVYN® MSK-M ATEX for SILVYN® AS			
55506010	MSK-M 12x1,5 AS ATEX	10	5
55506011	MSK-M 16x1,5 AS ATEX	14	5
55506012	MSK-M 20x1,5 AS ATEX	17	5
55506013	MSK-M 25x1,5 AS ATEX	21	5
55506014	MSK-M 32x1,5 AS ATEX	27	5
55506015	MSK-M 40x1,5 AS ATEX	36	1
55506016	MSK-M 50x1,5 AS ATEX	45	1
55506017	MSK-M 63x1,5 AS ATEX	56	1
SILVYN® MSK-M ATEX for SILVYN® EDU-AS / EMC AS-CU			
55506018	MSK-M M 12x1,5 EDU ATEX	10	5
55506019	MSK-M M 16x1,5 EDU ATEX	14	5
55506036	MSK-M M20x1,5 EDU ATEX	17	5
55506037	MSK-M M25x1,5 EDU ATEX	21	5
55506038	MSK-M M32x1,5 EDU ATEX	27	5
55506039	MSK-M M40x1,5 EDU ATEX	36	1
55506040	MSK-M M50x1,5 EDU ATEX	45	1
55506041	MSK-M M63x1,5 EDU ATEX	56	1

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

Accessories

- SKINMATIC® MH Set refer to main catalogue 2014/15 page 722



New

SILVYN® MSK-M ATEX BRUSH



Info

- IECEx approval worldwide
- Optimum 360° screen contact

Benefits

- Easy installation
- Faster, easier screen contact
- Optimum cable and conduit strain relief
- Maximum cable sealing
- Wide clamping range

Application range

- Devices, machines and apparatus of enhanced safety protection type “e”
- Chemical and petrochemical industry
- Plant engineering
- Used in areas where cables and wires need additional mechanical protection

Product features

- Combination of SILVYN® and SKINTOP®

Design

- SILVYN® conduit connection via inner sleeve and cap nut
- Metric connection thread acc. to EN 50262

Suitable conduits

- SILVYN® AS refer to main catalogue 2014/15 page 819
- SILVYN® EDU-AS refer to main catalogue 2014/15 page 821
- SILVYN® EMC AS-CU refer to main catalogue 2014/15 page 822

Technical data



Approvals

CE 0637 Ex II 2G
Ex eb IIC Ex II 1D
Ex ta IIIC
IECEx IBE 13.0033X



Material

Basis type:
Body: nickel-plated brass
Conduit connector seal: CR/NBR
Tube seal: TPE
EMC brush: brass

Tests

DIN EN 60079-0
DIN EN 60079-7



Protection rating

Cable: IP 68
Conduit:
IP 40 with SILVYN® AS, EDU-AS,
EMC AS-CU



Temperature range

-30°C to +90°C

Article number	Article designation	Suitable for conduit Ø (mm)	Pieces / PU
SILVYN® MSK-M ATEX BRUSH for SILVYN® AS			
55506042	MSK-M 25x1,5 AS ATEX BRUSH	21	10
55506043	MSK-M 32x1,5 AS ATEX BRUSH	27	1
55506044	MSK-M 40x1,5 AS ATEX BRUSH	36	1
55506045	MSK-M 50x1,5 AS ATEX BRUSH	45	1
55506030	MSK-M 63x1,5 AS ATEX BRUSH	56	1
SILVYN® MSK-M ATEX BRUSH for SILVYN® EDU-AS / EMC AS-CU			
55506031	MSK-M M25x1,5 EDU ATEX BRUSH	21	10
55506032	MSK-M M32x1,5 EDU ATEX BRUSH	27	1
55506033	MSK-M M40x1,5 EDU ATEX BRUSH	36	1
55506034	MSK-M M50x1,5 EDU ATEX BRUSH	45	1
55506035	MSK-M M63x1,5 EDU ATEX BRUSH	56	1

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

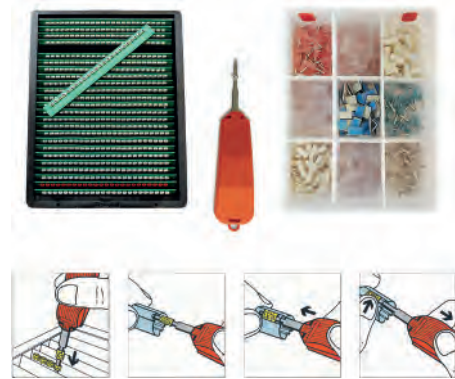
Accessories

- SKINMATIC® MH Set refer to main catalogue 2014/15 page 722



New

FLEXIMARK® Micro Kit



Benefits

- One system for different applications
- Quick, effective and user-friendly, with vast reductions in stock holding
- Durable PVC sleeves protect character elements from wear and degradation
- Reduced installation time
- Possibility to switch marking text without removing the marker

Application range

- For single core and cable marking
- Marking before and after assembly
- Quick and easy on-site assembly
- Indoor applications

Product features

- Pre-printed alphanumeric character elements are loaded into clear sleeves to mark wire, cable assemblies, terminal blocks and devices inside panels
- Fire behaviour according to UL 94V-0

Note

- Marking elements can be added or removed as required with removal hook (article no. 83290201)

Included

- Micro Kit:
 - 1x character strip with the text 1-9 und A B C E L N R S T V + -/ (1 character strip contains 24 markers)
 - 1x blank character strip in white and red
 - 50x transparent marking collars 3-4/ 15 mm
 - 20x transparent marking collars 8-10/ 15 mm
 - 50x transparent collars for cable tie 23 mm
 - 50x snap-on marking collars 2-3,5/ 15 mm
 - 50x snap-on marking collars 2,8-5/ 15 mm
 - 50x spark pins 1,5 mm², 9 mm, red
 - 20x spark pins 2,5 mm², 12 mm, blue
 - 20x spark pins 4 mm², 12 mm, green
 - 50x self-adhesive component marking collar, 15 mm
 - 1x mounting tool (article no. 83290199)
- Each Trasp™ contains 50 strips with 24 single markers (so in total there are 1.200 markers in one PU)

Technical data

- Dimensions**
Micro Kit: 170 x 210 x 75 mm
Width of the TRASP™ strips: 2,3 mm
- On request**
Further collars available on request
- Colour delivered**
Character strips: White
On request: Yellow character strips
- Temperature range**
-50°C to +80°C

Article number	Article designation	Number of markers per PU	PU
FLEXIMARK® Micro Kit			
83290100	FLEXIMARK® Micro Kit WH		1
Trasp™ strips letters			
83290120	Trasp strips A WH	1,200	1
83290121	Trasp strips B WH	1,200	1
83290122	Trasp strips C WH	1,200	1
83290123	Trasp strips D WH	1,200	1
83290124	Trasp strips E WH	1,200	1
83290125	Trasp strips F WH	1,200	1
83290126	Trasp strips G WH	1,200	1
83290127	Trasp strips H WH	1,200	1
83290128	Trasp strips I WH	1,200	1
83290129	Trasp strips J WH	1,200	1
83290130	Trasp strips K WH	1,200	1
83290131	Trasp strips L WH	1,200	1
83290132	Trasp strips M WH	1,200	1
83290133	Trasp strips N WH	1,200	1
83290134	Trasp strips O WH	1,200	1
83290135	Trasp strips P WH	1,200	1
83290136	Trasp strips Q WH	1,200	1
83290137	Trasp strips R WH	1,200	1
83290138	Trasp strips S WH	1,200	1
83290139	Trasp strips T WH	1,200	1
83290140	Trasp strips U WH	1,200	1
83290141	Trasp strips V WH	1,200	1
83290142	Trasp strips W WH	1,200	1
83290143	Trasp strips X WH	1,200	1
83290144	Trasp strips Y WH	1,200	1
83290145	Trasp strips Z WH	1,200	1

FLEXIMARK® Cable Marking

Basic System Cable Marking

Article number	Article designation	Number of markers per PU	PU
Trasp™ strips numbers			
83290102	Trasp™ strips 0 WH	1,200	1
83290103	Trasp strips 1 WH	1,200	1
83290104	Trasp strips 2 WH	1,200	1
83290105	Trasp strips 3 WH	1,200	1
83290106	Trasp strips 4 WH	1,200	1
83290107	Trasp strips 5 WH	1,200	1
83290108	Trasp strips 6 WH	1,200	1
83290109	Trasp strips 7 WH	1,200	1
83290110	Trasp strips 8 WH	1,200	1
83290111	Trasp strips 9 WH	1,200	1
Trasp™ strips symbols			
83290112	Trasp™ strips + WH	1,200	1
83290113	Trasp strips - WH	1,200	1
83290116	Trasp strips . WH	1,200	1
83290115	Trasp strips / WH	1,200	1
83290118	Trasp strips Ø WH	1,200	1
83290114	Trasp strips earthing symbol WH	1,200	1
83290117	Trasp strips* WH	1,200	1
83290119	Trasp strips : WH	1,200	1

Trasp TM ist ein eingetragenes Warenzeichen der Firma 3M.
Photographs are not to scale and do not represent detailed images of the respective products.

Marking systems

FLEXIMARK® Cable Marking

Customized System Cable Marking



New

FLEXIMARK® Cablelabel PUR FCC



Info

- PUR 60-10 contained in FLEXIMARK® sample bag (article number M3251010)

Benefits

- Halogen-free and flame-retardant cable marking
- Good UV-resistance
- Good chemical resistance
- Highly flexible material

Application range

- For cable and conduit marking
- Can be mounted directly on the cable together with plastic cable ties
- Markers will be delivered with the desired text (printing service is included in the price)
- Food and beverage industry

Product features

- One or two-line printing possible
- Text is automatically centered if not explicitly asked for another text alignment
- Extremely flame-retardant according to UL 94 V0

Norm references / Approvals

- MIL 81531 and MIL-STD-202G

Note

- **Ordering process:** Customised data will be emailed as an Excel file to the responsible Lapp employee when the order is made
 - Column A: Text for the first row
 - Column B: Text for the second row
 - Column B or C: Amount of each text

Technical data

- RAL Colour delivered**
Standard is black text (black labels: white text)
- Material**
Halogen-free PUR
- Temperature range**
-25°C to +80°C

Article number	Article designation	Colour	Width x length (mm)	Number of markers per PU	Contents (unit)
61800391	FLEXIMARK® Cablelabel PUR 60-10 YE FCC	yellow	60.0 x 10.0	1	1
61800392	FLEXIMARK® Cablelabel PUR 75-15 YE FCC	yellow	75.0 x 15.0	1	1
61800393	FLEXIMARK® Cablelabel PUR 75-25 YE FCC	yellow	75.0 x 25.0	1	1
61800394	FLEXIMARK® Cablelabel PUR 60-10 WH FCC	white	60.0 x 10.0	1	1
61800395	FLEXIMARK® Cablelabel PUR 75-15 WH FCC	white	75.0 x 15.0	1	1
61800396	FLEXIMARK® Cablelabel PUR 75-25 WH FCC	white	75.0 x 25.0	1	1
61800397	FLEXIMARK® Cablelabel PUR 60-10 RD FCC	red	60.0 x 10.0	1	1
61800398	FLEXIMARK® Cablelabel PUR 75-15 RD FCC	red	75.0 x 15.0	1	1
61800399	FLEXIMARK® Cablelabel PUR 75-25 RD FCC	red	75.0 x 25.0	1	1
61800400	FLEXIMARK® Cablelabel PUR 60-10 OG FCC	orange	60.0 x 10.0	1	1
61800401	FLEXIMARK® Cablelabel PUR 75-15 OG FCC	orange	75.0 x 15.0	1	1
61800402	FLEXIMARK® Cablelabel PUR 75-25 OG FCC	orange	75.0 x 25.0	1	1
61800403	FLEXIMARK® Cablelabel PUR 60-10 BU FCC	blue	60.0 x 10.0	1	1
61800404	FLEXIMARK® Cablelabel PUR 75-15 BU FCC	blue	75.0 x 15.0	1	1
61800412	FLEXIMARK® Cablelabel PUR 75-25 BU FCC	blue	75.0 x 25.0	1	1
61800406	FLEXIMARK® Cablelabel PUR 60-10 BK FCC	black	60.0 x 10.0	1	1
61800407	FLEXIMARK® Cablelabel PUR 75-15 BK FCC	black	75.0 x 15.0	1	1
61800413	FLEXIMARK® Cablelabel PUR 75-25 BK FCC	black	75.0 x 25.0	1	1

Photographs are not to scale and do not represent detailed images of the respective products.
Contents: roll, metre, unit, marker, label



New

FLEXIMARK® Thermoprint EOS4*



Info

- FLEXIMARK® EOS4 ensures excellent print quality for a fair price



Benefits

- High print speed (up to 125 mm/sec)
- High print resolution: 300 dpi
- Easy integration into existing IT environments
- Simple communication with FLEXIMARK® marking software 10.0
- Basic maintenance such as cleaning the label sensor, changing the print head or print roller, can be easily done by yourself

Application range

- Printing on a variety of different materials (among others FLEXIMARK® shrink tube, cablelabel PUR and TA foam component marking)
- The thermal transfer printing method increases the smudge and scratch resistance of the printed surface, and provides increased resistance to oils and chemicals as well

Included

- FLEXIMARK® Thermoprint EOS4 with operation manual and service manual on CD-ROM
- Marking software FLEXIMARK® Software 10.0
- Windows® driver
- FLEXIMARK® Ribbon R71 55/360 resin BK (article number 83259604)
- Power supply USB cable (length 1.8 m)

Technical data

- Dimensions**
253x189x322 mm (HxBxT)
- Label rolls**
Material thickness: 0,055 - 0,7 mm
Carrier width: 10-116 mm
Max. core diameter Ø: 38 - 76 mm
- Ribbons**
Ribbon length: up to 360m
- Speed**
Up to 125.00 mm/s
- Weight**
4 kg
- Material**
Labels or continuous material on coils

Article number	Article designation	PU
83259598	FLEXIMARK® Thermoprint EOS4/300	1

* Trade product, no Lapp product
Photographs are not to scale and do not represent detailed images of the respective products.
Contents: roll, metre, unit, marker, label

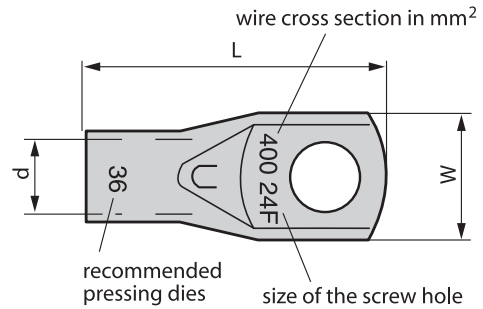
Accessories

- FLEXIMARK® Heat shrinkable tubing refer to main catalogue 2014/15 page 885
- FLEXIMARK® Flexilabel TFL refer to main catalogue 2014/15 page 886
- FLEXIMARK® Wrapping labels TCK refer to main catalogue 2014/15 page 886
- FLEXIMARK® Software 10.0 refer to main catalogue 2014/15 page 890
- FLEXIMARK® Accessories Transfer Printer A4+M/300 and EOS4* refer to main catalogue 2014/15 page 892
- FLEXIMARK® Flexiprint TF refer to main catalogue 2014/15 page 871
- FLEXIMARK® TA Labels Component marking
- FLEXIMARK® Cablelabel PUR refer to main catalogue 2014/15 page 883
- FLEXIMARK® Organized shrink tube refer to main catalogue 2014/15 page 884



New

Tube cable lugs KRFN



Benefits

- Can be installed via cable glands, allowing pre-assembly
- High-quality electrolytic copper ensures a good crimping quality
- With inspection hole

Application range

- Narrow tube cable lugs for stranded and flexible CU-conductors 50-240 mm², suitable for class 2 and class 5
- Adapted for narrow spaces

Norm references / Approvals

- In combination with recommended crimp tool fulfill requirements of SEN 245010, BS 4579:1, VDE 0220:1, EN-IEC 61238:1

Suitable tools

- V 1311 pressing pliers, hydraulic

Technical data



Material

Tinned electrolyte copper



Temperature range

Temperature range up to +90°C
Working temperature: 110°C, max. +140°C

Article number	Article designation	Screw hole Ø (mm)	Length (mm)	Pressing dies	d mm	W mm	Pieces / PU
61797400	KRFN 50/6	6	51	B 14.5	11.0	18.0	100
61797401	KRFN 50/8	8	51	B 14.5	11.0	18.0	100
61797402	KRFN 50/10	10	51	B 14.5	11.0	18.0	100
61797403	KRFN 70/6	6	56	B 14.5	13.0	20.0	50
61797404	KRFN 70/8	8	56	B 17	13.0	20.0	50
61797405	KRFN 70/10	10	56	B 17	13.0	20.0	50
61797406	KRFN 95/8	8	61	B 20	15.0	24.0	50
61797407	KRFN 95/10	10	62	B 20	15.0	24.0	50
61797408	KRFN 95/12	12	64	B 20	15.0	24.0	50
61797409	KRFN 120/8	8	65	B 22	17.0	26.0	50
61797410	KRFN 120/10	10	66	B 22	17.0	26.0	50
61797411	KRFN 120/12	12	68	B 22	17.0	26.0	50
61797412	KRFN 150/10	10	73	B 25/13 B 25	19.0	30.0	50
61797413	KRFN 150/12	12	75	B 25/13 B 25	19.0	30.0	50
61797414	KRFN 185/10	10	80	13 B 27	21.0	32.0	25
61797415	KRFN 185/12	12	82	13 B 27	21.0	32.0	25
61797416	KRFN 185/16	16	86	13 B 27	21.0	32.0	25
61797417	KRFN 240/10	10	84	13 B 30	22.5	38.0	50
61797418	KRFN 240/12	12	84	13 B 30	22.5	38.0	50

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

Similar products

- Tube cable lugs KR/ KRT/ KRF refer to main catalogue 2014/15 page 932
- Cable lugs KB refer to main catalogue 2014/15 page 924

Accessories

- T 2288 pressing pliers refer to main catalogue 2014/15 page 934
- V 1311 pressing pliers, hydraulic refer to main catalogue 2014/15 page 934



The following applies for the use of our products

The conformity of our products to the relevant European directives and compliance with the provisions contained therein shall be indicated by the CE marking.

The safety of our products is closely associated with how they are used. A knowledge of and adherence to the respective international/national standards of use (e.g. DIN VDE 0100; 0298)

are mandatory. There are particular risks if installed improperly. This applies to all our products/items:

Processing is only to be done by an authorised electrician! Otherwise, there is the risk of an electric shock or a fire ignited by electric current!

Safety

Without exception, our products are tested for application safety in accordance with defined standards and our own regulations, which complement the standards. Relevant legal requirements and safety regulations are also observed. Provided due care and attention is paid, the possibility of product-specific danger to the user may thus reasonably be excluded. Where products are used carelessly or incorrectly, however, considerable

danger to persons and the environment may arise. For this reason, our cables must only be processed and/or used responsibly by trained electricians or specialists. This catalogue contains general information for the application of each product. Independent of such information, the application standards DIN VDE 0298 and DIN VDE 0891 for cables will apply. Excerpts from these standards, as well as complementary selection

and application tables, design and installation guidelines, are contained in the tables in the appendix to the current main catalogue. Our machines and installation tools are – where necessary – designed in accordance with the machine guidelines and display the CE identification mark. It must be noted, however, that our machines and installation tools must only be used by trained specialist personnel and for the purpose for which they

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