THE WORLD OF LAPP

Innovations 2020

LAPP

Legend

Industries

Automation

e-Mobility

Food & Beverage

Mechanical and Plant Engineering

Oil & Gas

Rail

Solar Energy

Wind Energy

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.

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

Content

Andreas Lapp,
Matthias Lapp,
Ursula Ida Lapp,
Alexander Lapp,
Siegbert Lapp.

On course for success

Family business and global player
LAPP is both. The history of our company has been one of success and expansion ever since it was founded in 1959 by Ursula Ida and Oskar Lapp. It remains resolutely family owned to this day. We safeguard our success by staying close to our customers and markets, maintaining our innovative strength and brand quality, and being a reliable partner. We provide continuity, always guided in our thoughts and actions by our values.

Success built on family values
At LAPP, we maintain values that promote cooperation and enable relationships with employees, suppliers and customers based on partnership and trust. Good relations and mutual respect are key elements of our company culture and a central plank of company policy. We know that our successful business development of the last decades is down in particular to our 4,650 skilled and dedicated staff around the world, as well as the reliable partnership with our customers.

With 18 production facilities, over 44 sales companies and hundreds of dedicated consultants, we are always close to the individual needs and challenges of our customers all over the globe. We are constantly developing our products and system solutions, setting standards in safety, quality and functionality. This is why we are one of the world's leading manufacturers of integrated solutions and branded products in cable and connection technology. As our success story enters its third generation, we are aware of our duty to the future.

Customer-oriented

Innovative

Success-oriented

Family-oriented
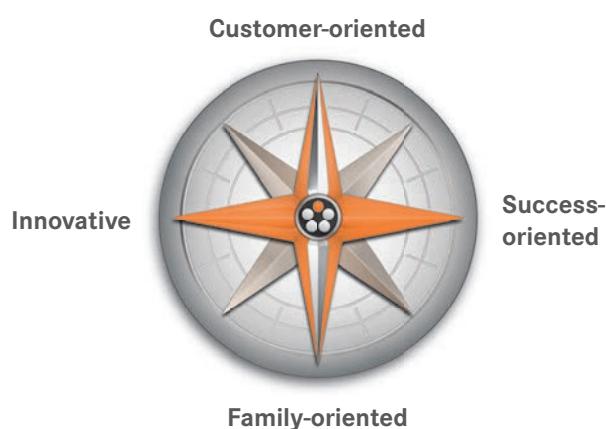
Room for innovations

With creative processes and innovative projects, we will be able to offer our customers completely new connection solutions in the future. Our formula for success: agile working methods, motivated employees and the courage to fail.

Innovation is one of the fundamental values at LAPP. In addition to tried-and-tested Stage-Gate processes, which are particularly suitable for incremental innovations, we are increasingly relying on disruptive and transformational innovation processes. With the slogan "Innovation for future", we are working on developing solutions that meet challenges for which there has not previously been an established approach. We are confident this will enable us to successfully implement completely new ideas in the future.

Predictive maintenance:
Predicting failures

One example of a disruptive innovation project is predictive maintenance for cables. The LAPP developers have succeeded in coming up with a solution that does not involve sacrificial cores or other additional elements: The system works with conventional LAPP cables. For users, this means no additional effort during connection. Retrofitting existing systems is also possible as a result. As a next step, we will now refine the solution and develop a suitable business model with pilot customers.

Cloud marking:
Digital cable marking for assemblers

Cloud marking is a technically implemented disruptive innovation. It makes it easier for assemblers to assign and mark cable products. The markings for the cables are stored and processed in the cloud. Manual copying and attachment, where errors can easily creep in, are a thing of the past.

Reliable partner through innovation
We rely on innovative strength to react to changing customer requirements. If required, we will also develop completely new solutions for your needs. With a new innovation concept and a broad product portfolio, LAPP will continue to be a reliable partner in the digitalized future.

"Our innovations will no longer relate to the products alone. We want to pursue all the ideas that will benefit our customers. So that may be a service or a logistics solution."

Guido Ege,
Head of Product Management and
Product Development

www.lappkabel.com/innovations

5

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

Power and control cables

Harsh conditions • High mechanical and chemical resistance

⊗ LAPP

CE ℝ c ℝ

ÖLFLEX® 409 CP

Screened, abrasion- and oil-resistant PUR control cable for increased application requirements – certified

LAPP KABEL STUTTGART ÖLFLEX® 409 CP ℝ AWM CE

Info

- Oil resistant and abrasion-proof
- UL/cUL certified for North America
- EMC compliant copper screening

Benefits

- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media
- Certified for the USA and Canada for export-oriented machine, appliance and apparatus manufacturers
- Copper braiding screens the cable against electromagnetic interference

Application range

- Appliance and apparatus construction
- Industrial machinery and machine tools
- Measurement, control and electrical applications
- Very suitable for oily wet areas within machinery and production lines that are subject to normal mechanical stress
- Under consideration of the temperature range also suitable for outdoor use

Product features

- High oil-resistance
- Flame-retardant
- Abrasion and notch-resistant
- UV-resistant according to ISO 4892-2
- Resistant to hydrolysis and microbes

Norm references / Approvals

- UL AWM Style 20234
- CUL AWM I/II A/B
- UL File No. E63634

Product Make-up

- Fine-wire, bare copper conductor
- Core insulation: special PVC
- Cores twisted in layers
- Plastic foil wrapping
- Tinned-copper braiding
- Special polyurethane outer sheath (PUR)
- Sheath colour: black (similar RAL 9005)

Technical data

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

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

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
U0/U: 300/500 V
UL/CSA: 1000 V

Test voltage
4000 V

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

Temperature range
Occasional flexing: -5°C to +70°C (UL: +80°C)
Fixed installation: -40°C to +80°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® 409 CP				
1321852	2 X 0.75	7.0	29	75
1321103	3 G 0.75	7.3	37	89
1321104	4 G 0.75	7.8	44	104
1321105	5 G 0.75	8.4	53	120
1321107	7 G 0.75	9.0	67	146
1321110	10 G 0.75	10.9	94	196
1321112	12 G 0.75	11.2	107	219
1321118	18 G 0.75	12.9	152	298
1321125	25 G 0.75	14.8	200	387
1321902	2 X 1.0	7.3	34	84
1321203	3 G 1.0	7.6	43	99
1321204	4 G 1.0	8.1	53	116
1321205	5 G 1.0	8.8	64	137
1321207	7 G 1.0	9.4	83	167
1321210	10 G 1.0	11.5	116	228
1321212	12 G 1.0	11.8	133	255
1321218	18 G 1.0	13.8	191	355
1321225	25 G 1.0	15.7	272	474
1321952	2 X 1.5	7.9	43	99

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
1321303	3 G 1.5	8.3	57	119
1321304	4 G 1.5	8.9	71	143
1321305	5 G 1.5	9.6	85	167
1321307	7 G 1.5	10.3	112	207
1321312	12 G 1.5	13.3	182	326
1321318	18 G 1.5	15.3	277	464
1321325	25 G 1.5	17.5	375	609
1321403	3 G 2.5	9.6	86	166
1321404	4 G 2.5	10.3	110	203
1321405	5 G 2.5	11.2	134	243
1321407	7 G 2.5	12.1	178	305
1321412	12 G 2.5	15.8	311	503
1321504	4 G 4.0	11.9	163	276
1321505	5 G 4.0	13.2	199	340
1321604	4 G 6.0	13.4	232	368
1321605	5 G 6.0	14.7	284	450
1321704	4 G 10.0	16.8	397	644
1321705	5 G 10.0	18.7	486	785
1321804	4 G 16.0	19.6	639	931
1321805	5 G 16.0	22.4	786	1142

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. 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 and graphics are not to scale and do not represent detailed images of the respective products.

Power and control cables
Power chain applications • Servo applications - power drive systems, certified

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

ÖLFLEX® SERVO 3D 7DSL

Low capacitive hybrid servo cable with PUR outer sheath for three-dimensional robotic application - certified

Info

- One cable solution for servo drives
- Suitable for Hiperface DSL® and SCS open link interfaces
- 3D - Simultaneous bending and torsion

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Only one connection line between drive and motor-feedback system. Instead of the encoder cable a specific integrated data pair takes over the signalling.
- Less cables and reduced connection costs
- Space and weight savings thanks to hybrid cable design
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- Connecting cable between servo controller and motor
- In industrial robots, moving machine parts or drag chains
- Automated handling equipment
- Particularly in wet areas of machine tools and transfer lines
- Inside of dresspacks of buckling arm robots and for use for gantry robots
- For indoor and outdoor use

Product features

- High oil-resistance
- Abrasion and notch-resistant
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Flexible at low temperatures
- Low-capacitance design

Norm references / Approvals

- UL AWM Style 21223
  cRU AWM I/II A/B FT1
- UL File No. E63634
- Designed for up to 5 million torsion cycles
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine-wire, bare copper conductor (power cores and control pair) and 19-wire, tinned copper conductor (data pair)
- Core insulation: Polypropylene (PP) respectively fluorinated ethylene propylene (FEP)
- Power cores with screened control pair and data pair twisted together
- Special tape wrapping
- Spiral shield made of tinned copper wires
- Wrapping of PTFE tape
- PUR outer sheath, black (similar RAL 9005)

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
Power cores: black with marking U/L1/C/L+; V/L2; W/L3/D /L-; GN/YE protective conductor
Data pair: white, blue
Control pair: black, white

Conductor stranding
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
DSL data pair: 19-wired

Torsion
Torsion load max. ± 180 °/m

Minimum bending radius
Moved: 10 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
Power and control cores:
IEC: U0/U: 600/1000 V
UL: 600 V
Data pair UL: 600 V

Test voltage
Power and control: 4 kV
Data pair: 1kV

Protective conductor
G = with GN-YE protective conductor

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

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
ÖLFLEX® SERVO 3D 7DSL				
1023351	4 G 0,5 + (2 x 0,25) + (2 x 26AWG)	9.4	70	130
1023352	4 G 1,5 + (2 x 1,0) + (2 x 22AWG)	13.3	152	276
1023353	4 G 2,5 + (2 x 1,0) + (2 x 22AWG)	14.4	195	326

Unless specified otherwise, the shown product values are nominal values at room temperature. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. 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
HIPERFACE DSL® is a registered trademark of SICK AG, ACURO®link and SCS open link are registered trademarks of Hengstler GmbH
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Similar products
- ÖLFLEX® SERVO 7DSL refer to main catalogue 2020/21
- ÖLFLEX® SERVO FD 7DSL refer to main catalogue 2020/21
- ÖLFLEX® SERVO FD 7OCS refer to page 8

Accessories
- Protective cable conduit systems and cable carrier systems refer to main catalogue 2020/21
- Circular connectors refer to main catalogue 2020/21

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

Power and control cables

Power chain applications • Servo applications - power drive systems, certified

⊛ **LAPP**

ÖLFLEX® SERVO FD 7OCS

Low capacitive hybrid servo cables with PUR outer sheath for highly dynamic power chain application - certified

Info

- One cable solutions for servo drives
- Suitable for various OEM transmission protocols
- Extended Line Performance - High power chain requirements

Benefits

- Allows much faster speed and accelerations which increases the economic efficiency of the machines
- Only one connection line between drive and motor-feedback system. Instead of the encoder cable integrated data pairs, quads or signal cores take over the signalling.
- Less cables and reduced connection costs
- Space and weight savings thanks to hybrid cable design
- Increased durability under harsh conditions thanks to robust PUR outer sheath
- Resistant to contact with many mineral oil-based lubricants, diluted acids, aqueous alkaline solutions and other chemical media

Application range

- Power drive systems in automation engineering
- Connecting cable between servo controller and motor
- In power chains or moving machine parts
- For use in assembling & pick-and-place machinery
- Particularly in wet areas of machine tools and transfer lines
- For indoor and outdoor use

Product features

- OCS - One Cable Solution
- High oil-resistance
- Abrasion and notch-resistant
- Flammability:
  UL/CSA: VW-1, FT1
  IEC/EN: 60332-1-2
- Halogen-free materials
- Flexible at low temperatures

Norm references / Approvals

- UL AWM Style 21223 or 20233
  cRU AWM I/II A/B FT1
- UL File No. E63634
- For use in power chains: Please comply with assembly guideline Appendix T3

Product Make-up

- Extra-fine or fine wired conductor made of bare or tinned copper
- Core insulation: polypropylene (PP)
- Individual design depending on the item: power cores with screened control pair or bundle and specific data pairs, quads or signal cores twisted together
- Non-woven wrapping
- Tinned-copper braiding
- PUR outer sheath, orange (RAL 2003)

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
Details see datasheet

Conductor stranding
Power cores and brake pairs or triplets:
Extra-fine wire according to VDE 0295, class 6/IEC 60228 class 6
Signal cores, data pairs or star quads: Fine-wired

Minimum bending radius
Flexing: 7.5 x outer diameter
Fixed installation: 5 x outer diameter

Nominal voltage
Power and control cores:
Version 1,3 & 4: IEC U_0/U 600/1000 V
Version 2: IEC 300 V
UL all versions: see data sheet
Individual data pairs and quads: see data sheet

Test voltage
Details see datasheet

Protective conductor
G = with GN-YE protective conductor

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

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
7OCS Version 1				
1023375	4 G 1,5 + (2 x 0,75) + (4 x 24AWG)	13.3	154	252
7OCS Version 2				
1023378	4 G 22AWG + (2 x 22AWG) + (4 x 26AWG)	9.8	75	128
1023379	4 G 19AWG + (2 x 21AWG) + (4 x 26AWG)	10.6	100	159
7OCS Version 3				
1023370	4 G 1,5 + (2 x 0,75) + (2 x 24AWG + 2 x 2 x 26AWG)	14.4	162	248
1023371	4 G 2,5 + (2 x 1,0) + (2 x 24AWG + 2 x 2 x 26AWG)	15.6	207	306
1023372	4 G 4 + (2 x 1,0) + (2 x 24AWG + 2 x 2 x 26AWG)	16.5	274	394
7OCS Version 4				
1023382	4 G 1,5 + (3 x 1,0) + (1 x 20AWG)	13.6	170	275
1023383	4 G 2,5 + (3 x 1,0) + (1 x 20AWG)	15.0	215	326
1023384	4 G 4 + (3 x 1,0) + (1 x 20AWG)	16.2	284	420

Unless specified otherwise, the shown product values are nominal values at room temperature. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. 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
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Similar products

- ÖLFLEX® SERVO 7DSL refer to main catalogue 2020/21
- ÖLFLEX® SERVO FD 7DSL refer to main catalogue 2020/21

Accessories

- Protective cable conduit systems and cable carrier systems refer to main catalogue 2020/21
- Circular connectors refer to main catalogue 2020/21

Power and control cables

Special applications • Direct current networks

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

DC application for the industry

Direct current (DC) serves as a future key technology for the integration of renewable energy sources and helps to avoid energy conversions within the production process. A simplified energy exchange between energy source and production plant/machine parts, as well as a process-optimized storage connection are important advantages of this technology in order to be able to implement an intelligent energy supply in the industry. Lapp is working intensively on solutions and can actively contribute to the implementation and application of direct current in the production process with the following portfolio.

ÖLFLEX® DC – Product range

Product		Application range	Nominal voltage (power cores)	Cross section (mm²) (power cores)	Temperature
ÖLFLEX® DC 100		Power cable for fixed installation and occasional flexible use	0.75/1.5 kV DC	1.5 - 185	Flexible: -5°C to +70°C Fixed installation: -40°C to +80°C
ÖLFLEX® DC SERVO 700		Power cable for DC drives & daisy chain applications	0.75/1.5 kV DC	2.5	Flexible: -5°C to +70°C Fixed installation: -40°C to +80°C
ÖLFLEX® DC CHAIN 800		Power cable for highly flexible use in constant motion within drag chains	0.75/1.5 kV DC	0.5 - 35	Flexible: -40°C to +105°C Fixed installation: -50°C to +105°C
ÖLFLEX® DC ROBOT 900		Power cable for highly flexible use with continuously alternating bending and torsional motion	0.75/1.5 kV DC	0.5 - 35	Flexible: -35°C to +90°C Fixed installation: -50°C to +90°C

Direct current improves energy and resource efficiency

Increase of availability
• Stability of energy networks due to reduced harmonics

Energy efficiency
• Cross-machine recuperation
• Reduction of conversion losses from AC to DC
• Easier integration of renewable, decentralized energy sources

Resource efficiency
• Less components and less space required
• Less wiring efforts

Knowledge Center

You can get further information online:

www.lappkabel.com/service/knowledge-center/innovation-idea-direct-current-part-1.html

H07V-U

European <HAR> cable type certification

CE ◁HAR▷

Benefits
- Cables' <HAR>marking also stands for the international endorsement of national certification institutes' testing marks and certificates, e. g. <VDE><HAR>. The <HAR>marking is of special importance in case of goods traffic between European countries.

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

Product features
- Flame-retardant according IEC 60332-1-2

Norm references / Approvals
- <HAR> cable type certification acc. EN 50525-2-31
- No cable type certified core insulation colours according to EN 50525-1/ VDE 0285-525-1: transparent, green (single colour), yellow (single colour), all double colours (except of green-yellow and yellow-green)

Product Make-up
- Solid bare copper conductor
- Core insulation: Based on PVC

Technical data

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

Conductor stranding
Massive conductor according to VDE 0295 Class 1/ IEC 60228 Class 1

Minimum bending radius
According to EN 50565-1
Fixed installation: 4 x outer diameter

Nominal voltage
U0/U: 450/750 V

Test voltage
2500 V

Current rating
VDE 0298 Part 4
EN 50565-1/ VDE 0298-565-1

Temperature range
Fixed installation: -40°C to +80°C
Moved: +5°C to +70°C

Conductor cross-section (mm²)	Outer diameter [mm]	m/ring	Copper index (kg/km)	Weight (kg/km)	grey	white	red	violet	blue
1.5	3.2 - 2.6	350	14.4	22	4527061X	4527051X	4527041X	4527071X	4527021X
2.5	3.9 - 3.2	200	24	37	4527062X	4527052X	4527042X	4527072X	4527022X

Conductor cross-section (mm²)	Outer diameter [mm]	m/ring	Copper index (kg/km)	Weight (kg/km)	brown	black	green/yellow
1.5	3.2 - 2.6	350	14.4	22	4527031X	4527011X	4527001X
2.5	3.9 - 3.2	200	24	37	4527032X	4527012X	4527002X

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Copper price basis: EUR 150/100 kg. Refer to catalogue appendix T17 for the definition and calculation of copper-related surcharges.
Packaging size: Coil ≤ 30 kg, otherwise drum
Photographs and graphics are not to scale and do not represent detailed images of the respective products.
*for conventional use, **for careful bending; „OD" = outer diameter

Similar products
- MULTI-STANDARD SC 2.1 refer to main catalogue 2020/21
- MULTI-STANDARD SC 2.2 refer to main catalogue 2020/21

Accessories
- DIN assorted boxes conductor end sleeves refer to main catalogue 2020/21
- PEW 8.87 crimping pliers refer to main catalogue 2020/21
- FLEXIMARK® Collar Snap-on refer to main catalogue 2020/21
- Mobile crimp tool crimping pliers refer to main catalogue 2020/21

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

N2XSY
PVC medium voltage cable with copper conductor

Info

- 3 voltage classes: 6/10 kV, 12/20 kV, 18/30 kV
- With copper conductor

Application range

- Power and control cable for fixed installation in the following applications:
- In water, in ground, outdoors and indoors
- In cable trays for power stations, industry, and distribution networks
- Burial without additional, suitable underground protection according to HD 620/VDE 0276-620 – Part 10-C (point 4): normal minimum installation depth 0.6 m, but at least 0.8 m under roads

Product features

- Flame-retardant according IEC 60332-1-2
- Current rating according to HD 620/VDE 0276-620, Part 10-C, Table 7 (buried at +20 °C ground temperature according to HD 620/VDE 0276-620, Part 10-C, point 5) for routing underground and Table 8 (in the air at an air temperature of +30 °C according to HD 620/

VDE 0276-620, Part 10-C, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T12) for installation in and on buildings

Norm references / Approvals

- HD 620/ VDE 0276-620

Product Make-up

- Copper conductor
- Abbreviation „rm":
  r = round conductor form;
  m = multi-wire conductor
- Core insulation: Cross-linked Polyethylen (XLPE)
- Screen made of copper wires with one or two copper bond counter spiral
- Outer sheath: PVC, red

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC001140
ETIM 5.0/6.0 Class-Description:
Medium voltage power cable

Conductor stranding
Multi-wire

Minimum bending radius
Fixed installation: 15 x outer diameter

Nominal voltage
U_0/U: 6/10 kV, 12/20 kV, 18/30 kV

Test voltage
Depending on nominal voltage:
6/10 kV: 15 kV
12/20 kV: 30 kV
18/30 kV: 45 kV

Temperature range
During installation: -5°C to +50°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
6/10 kV				
3037523	1X35 RM/16	24.0	518	867
3022192	1X50 RM/16	25.0	662	1001
38007455	1X70 RM/16	26.0	854	1232
3037524	1X95 RM/16	28.0	1094	1500
38101056	1X120 RM/16	30.0	1334	1746
1550537	1X150 RM/25	31.0	1723	2095
38007456	1X185 RM/25	33.0	2059	2472
1550538	1X240 RM/25	35.0	2587	3032
38100269	1X300 RM/25	37.0	3163	3637
38101815	1X400 RM/35	40.0	4234	4535
38101814	1X500 RM/35	43.0	5194	5566
38107775	1x630 RM/35	47.0	6442	6935
12/20 kV				
1552067	1X35 RM/16	28.0	518	1030
1552040	1X50 RM/16	29.0	662	1169
38300006	1X70 RM/16	31.0	854	1410
3801425	1X95 RM/16	32.0	1094	1689
38100617	1X120 RM/16	34.0	1334	1944
1550554	1X150 RM/25	35.0	1723	2301
38107776	1x185 RM/25	37.0	2059	2689
38300015	1X240 RM/25	39.0	2587	3262
38300017	1X300 RM/25	42.0	3163	3882
38101817	1X400 RM/35	44.0	4234	4797
38101816	1X500 RM/35	47.0	5194	5850
38107777	1x630 RM/35	51.0	6442	7237
38107778	1x800 RM/35	56.0	8074	9058
18/30 kV				
38107779	1x35 RM/16	24.0	518	770
38300014	1X50 RM/16	34.0	662	1403
38107780	1x70 RM/16	36.0	854	1656
38801995	1X95 RM/16	37.0	1094	1947
38300009	1X120 RM/16	39.0	1334	2213
38107781	1x150 RM/25	40.0	1723	2580
38107782	1x185 RM/25	42.0	2059	2980
38106711	1X240 RM/25	44.0	2587	3570
38107783	1x300 RM/25	47.0	3163	4208
38107784	1x400 RM/35	50.0	4234	5147
38107785	1x500 RM/35	53.0	5194	6244

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Aluminium price basis: excludes aluminium. Refer to catalogue appendix T17 for the application and definition of „Metal price basis" and „Metal index".
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Power and control cables

Building Installation • Medium voltage cables

◉ LAPP

VDE

N2XS2Y

PE medium voltage cable with copper conductor

N2XS2Y

Info

- 3 voltage classes: 6/10 kV, 12/20 kV, 18/30 kV
- With copper conductor

Application range

- Power and control cable for fixed installation in the following applications:
- In water, in ground, outdoors and indoors
- In cable trays for power stations, industry, and distribution networks
- Burial without additional, suitable underground protection according to HD 620/VDE 0276-620 – Part 10-C (point 4): normal minimum installation depth 0.6 m, but at least 0.8 m under roads

Product features

- Suitable for installation or operation under high mechanical stress due to the PE-sheath
- Current rating according to HD 620/ VDE 0276-620, Part 10-C, Table 7 (buried at +20 °C ground temperature according to HD 620/VDE 0276-620, Part 10-C, point 5) for routing underground and Table 8 (in the air at an air temperature of +30 °C according to HD 620/

VDE 0276-620, Part 10-C, point 5) when used outdoors; but always taking into consideration corrections/reductions to the current rating that may be necessary according to VDE 0298-4, and VDE 0298-4 (also refer to the catalogue appendix T12) for installation in and on buildings

Norm references / Approvals

- HD 620/ VDE 0276-620

Product Make-up

- Copper conductor
- Abbreviation „rm“:
  r = round conductor form;
  m = multi-wire conductor
- Core insulation: Cross-linked Polyethylen (XLPE)
- Screen made of copper wires with one or two copper bond counter spiral
- Outer sheath: PE, black

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC001140
ETIM 5.0/6.0 Class-Description: Medium voltage power cable

Conductor stranding
Multi-wire

Minimum bending radius
Fixed installation: 15 x outer diameter

Nominal voltage
U_0/U: 6/10 kV, 12/20 kV, 18/30 kV

Test voltage
Depending on nominal voltage:
6/10 kV: 15 kV
12/20 kV: 30 kV
18/30 kV: 45 kV

Temperature range
During installation: -20°C to +50°C
Fixed installation: -40°C to +90°C

Article number	Number of cores and mm² per conductor	Outer diameter [mm]	Copper index (kg/km)	Weight (kg/km)
6/10 kV				
38107786	1x35 RM/16	24.0	518	770
38001000	1X50 RM/16	25.0	662	900
1552070	1X70 RM/16	26.0	854	1123
38107787	1x70 RM/50	27.0	1238	1450
38107788	1x95 RM/16	28.0	1094	1384
38107789	1x120 RM/16	30.0	1334	1623
38107029	1X150 RM/25	31.0	1723	1966
38107790	1x185 RM/25	33.0	2059	2335
1550067	1X240 RM/25	35.0	2587	2885
38107791	1x300 RM/25	37.0	3163	3480
38107792	1x400 RM/35	41.0	4234	4381
38107793	1x500 RM/35	43.0	5194	5382
12/20 kV				
1552068	1X35 RM/16	28.0	518	914
1552069	1X50 RM/16	29.0	662	1049
1552041	1X70 RM/16	31.0	854	1289
3828017	1X95 RM/16	32.0	1094	1554
38107794	1x120 RM/16	34.0	1334	1802
1552047	1X150 RM/25	35.0	1723	2153
38107795	1x185 RM/25	37.0	2059	2533
38107796	1x240 RM/25	39.0	2587	3096
38107797	1x300 RM/25	42.0	3163	3705
38107798	1x300 RM/35	42.0	3274	3800
38107799	1x400 RM/35	44.0	4234	4519
38107800	1x500 RM/35	47.0	5194	5647
38107801	1x630 RM/35	51.0	6442	7049
18/30 kV				
3036224	1X50 RM/16	34.0	662	1260
38107802	1x70 RM/16	36.0	854	1656
38107803	1x95 RM/16	37.0	1094	1789
38107804	1x120 RM/16	39.0	1334	2048
38107805	1x150 RM/25	40.0	1723	2409
3028167	1X185 RM/25	42.0	2059	2802
38107806	1x240 RM/25	44.0	2587	3382
38107807	1x300 RM/25	47.0	3163	4009
38107808	1x400 RM/35	50.0	4234	4934
38107809	1x500 RM/35	53.0	5194	6009
38107810	1x630 RM/35	56.0	6442	7423

Unless specified otherwise, the shown product values are nominal values. Detailed values (e.g. tolerances) are available upon request.
Aluminium price basis: excludes aluminium. Refer to catalogue appendix T17 for the application and definition of „Metal price basis" and „Metal index".
Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Data communication systems for ETHERNET technology
Industrial Ethernet • Active network components

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

LAPP

CE UL

ETHERLINE® ACCESS UF

Info
• Compact design

Benefits
• Compact design with high port density
• PROFINET® enabled device
• Space saving and industrial grade DIN rail mounting

Application range
• Industrial networks

Product features
• Switches with 5, 8 and 16 ports
• RJ45 Ports: 10/100BaseT(X)

Norm references / Approvals
• UL 61010

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
–25°C to +60°C

Article number	Article designation	Type	number of ports	MTBF in years
ETHERLINE® ACCESS UF				
21700144	ETHERLINE ACCESS UF05T	Unmanaged	5 x RJ45	>35,55
21700145	ETHERLINE ACCESS UF08T	Unmanaged	8 x RJ45	>29,70
21700146	ETHERLINE ACCESS UF16T	Unmanaged	16 x RJ45	>16,62

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

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

CE UL

ETHERLINE® ACCESS U
Industrial unmanaged Ethernet switches

Info
• Redundant power inputs
• Robust metal housing and DIN rail mounting
• Fanless maintenance free

Benefits
• Improve your total cost of ownership with faster installation and lower downtime
• Most flexible and globally present solutions from one hand

Product features
• RJ45 Ports: 10/100BaseT(X)
• Packet Buffer Size: 512 kbit
• Broadcast storm protection
• Redundant Power Input: 24 VDC

Norm references / Approvals
• UL 61010
• Shock IEC 60068-2-27
• Freefall IEC60068-2-32
• Vibration IEC 60068-2-6

Technical data

ETIM	**Classification ETIM 5/6** ETIM 5.0/6.0 Class-ID: EC000734 ETIM 5.0/6.0 Class-Description: Network switch
⚡	**power supply** DC 24 V (18-30 V DC)
IP	**Protection rating** IP 30
🌡	**Temperature range** -10°C to +60°C

Article number	Article designation	Type	number of ports	Product features
Unmanged switches with RJ45				
21700123	ETHERLINE ACCESS U05T-2GEN	Unmanaged	5 x RJ45	
21700124	ETHERLINE ACCESS U08T-2GEN	Unmanaged	8 x RJ45	
21700120	ETHERLINE ACCESS U16T	Unmanaged	16 x RJ45	
Gigabit Unmanaged switches				
21700129	ETHERLINE ACCESS U08GT	Unmanaged	8 x RJ45	Gigabit
PoE Unmanaged Switches				
21700138	ETHERLINE ACCESS U04TP01T	Unmanaged	5 x RJ45	PoE

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

Accessories
• ETHERLINE® EC FD Cat.5e RJ45 refer to main catalogue 2020/21

Data communication systems for ETHERNET technology
Industrial Ethernet • Active network components

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

ETHERLINE® ACCESS M
Industrial managed Ethernet switches

Info

- Redundant power inputs
- Robust metal housing and DIN rail mounting
- Fanless maintenance free

Benefits

- Improve your total cost of ownership with faster installation and lower downtime
- Most flexible and globally present solutions from one hand

Product features

- Simple setup of redundant networktopologies with reconfiguration time < 20 ms
- RJ45 Ports: 10/100BaseT(X)
- Packet Buffer Size: 1 Mbit
- Supported protocols: HTTP, Telnet,EtherNet/IP, Modbus/TCP, IPv6, and many more
- Redundant Power Input: 24 VDC

Norm references / Approvals

- UL 61010
- Shock IEC 60068-2-27
- Freefall IEC60068-2-32
- Vibration IEC 60068-2-6

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
IP 40

Temperature range
-40°C up to +75°C

Article number	Article designation	Type	number of ports	Product features
Managed Switches with RJ45				
21700125	ETHERLINE ACCESS M06T-2GEN	Managed	6 x RJ45	
21700126	ETHERLINE ACCESS M08T-2GEN	Managed	8 x RJ45	
Managed Switches with SFP				
21700136	ETHERLINE ACCESS M08T02SFP	Managed	8 x RJ45 + 2 x SFP	SFP Port
21700137	ETHERLINE ACCESS M08T02GSFP	Managed	8 x RJ45 + 2 x SFP Gbit/s	SFP Port

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

Accessories

- ETHERLINE® EC FD Cat.5e RJ45 refer to main catalogue 2020/21

PROFI NET®

HITRONIC® SBX

Industrial splice boxes for splicing fibre optic cables

Product features

- SC-RJ variants are suitable for PROFINET® applications
- Mounting type on contract rail: TH35
- Three different cable inlets and positions on contract rail possible
- Available in 6x and 12x duplex adapter
- Plastic or metal version

Info

- For different connector types in singlemode und multimode versions

Article number	Article designation	Housing material	Colour	PU
Multimode G50 OM4				
29500792	HITRONIC SBX 12xST-D MT PG150 G50 OM4	metal		1 piece
29500796	HITRONIC SBX 12xSC-D VT PG150 G50 OM4	plastic	violet	1 piece
29500805	HITRONIC SBX 12xLC-D VT PG150 G50 OM4	plastic	violet	1 piece
29500777	HITRONIC SBX 6xST-D MT PG150 G50 OM4	metal		1 piece
29500782	HITRONIC SBX 6xSC-D VT PG150 G50 OM4	plastic	violet	1 piece
29500788	HITRONIC SBX 6XSC-RJ BG PG150 G50 OM4	plastic	beige	1 piece
29500801	HITRONIC SBX 6xLC-D VT PG150 G50 OM4	plastic	violet	1 piece
Multimode G50 OM3				
29500791	HITRONIC SBX 12xST-D MT PG150 G50 OM3	metal		1 piece
29500795	HITRONIC SBX 12xSC-D TQ PG150 G50 OM3	plastic	turquoise	1 piece
29500804	HITRONIC SBX 12xLC-D TQ PG150 G50 OM3	plastic	turquoise	1 piece
29500776	HITRONIC SBX 6xST-D MT PG150 G50 OM3	metal		1 piece
29500781	HITRONIC SBX 6xSC-D TQ PG150 G50 OM3	plastic	turquoise	1 piece
29500787	HITRONIC SBX 6XSC-RJ BG PG150 G50 OM3	plastic	beige	1 piece
29500800	HITRONIC SBX 6xLC-D TQ PG150 G50 OM3	plastic	turquoise	1 piece
Multimode G50 OM2				
29500790	HITRONIC SBX 12xST-D MT PG150 G50 OM2	metal		1 piece
29500794	HITRONIC SBX 12xSC-D BG PG150 G50 OM2	plastic	beige	1 piece
29500803	HITRONIC SBX 12xLC-D BG PG150 G50 OM2	plastic	beige	1 piece
29500775	HITRONIC SBX 6xST-D MT PG150 G50 OM2	metal		1 piece
29500780	HITRONIC SBX 6xSC-D BG PG150 G50 OM2	plastic	beige	1 piece
29500786	HITRONIC SBX 6XSC-RJ BG PG150 G50 OM2	plastic	beige	1 piece
29500799	HITRONIC SBX 6xLC-D BG PG150 G50 OM2	plastic	beige	1 piece
Multimode G62,5 OM1				
29500774	HITRONIC SBX 6xST-D MT PG150 G62.5 OM1	metal		1 piece
29500785	HITRONIC SBX 6XSC-RJ BG PG150 G62.5 OM1	plastic	beige	1 piece
29500798	HITRONIC SBX 6xLC-D BG PG150 G62.5 OM1	plastic	beige	1 piece
Singlemode E9/125 OS2				
29500793	HITRONIC SBX 12xST-D MT PG150 E9 OS2	metal		1 piece
29500797	HITRONIC SBX 12xSC-D BL PG150 E9 OS2	plastic	blue	1 piece
29500806	HITRONIC SBX 12xLC-D BL PG150 E9 OS2	plastic	blue	1 piece
29500778	HITRONIC SBX 6xST-D MT PG150 E9 OS2	metal		1 piece
29500783	HITRONIC SBX 6xSC-D BL PG150 E9 OS2	plastic	blue	1 piece
29500784	HITRONIC SBX 6xSC-D MT PG150 E9 OS2	metal		1 piece
29500789	HITRONIC SBX 6XSC-RJ BL PG150 E9 OS2	plastic	blue	1 piece
29500802	HITRONIC SBX 6xLC-D BL PG150 E9 OS2	plastic	blue	1 piece

Other types of connectors (e.g. LC, MTRJ, E2000) are available upon request.Judy Lim:This will not apply to Hitronic anymore, as LC will become a standard product and MTRJ/E2000 will be removed.
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

EPIC® DATA TS
Din rail adapter for optical fibre

Info

• Mountable carrier

Product features

• Directly mountable on carrier acc. to DIN 50022 in industrial environment
• Available for breakout cables with clutch SC Simplex, SC-RJ and LC duplex
• Labeling for better identification
• Easy to install with srewdriver
• Suitable for GOF singlemode and multimode fibers
• Ideal for the industry due to it's compact design
• Colour: grey (RAL 7035)
• Material housing: PC-GFIO
• Loading force ≥ 100 N
• Extraction force: ≥ 40 N

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 bis + 60°C (operation)

Article number	Article designation	PU
EPIC® DATA TS		
29500766	EPIC DATA TS GOF LC-D OM1	1 piece
29500767	EPIC DATA TS GOF LC-D OM2	1 piece
29500762	EPIC DATA TS GOF LC-D OM3	1 piece
29500763	EPIC DATA TS GOF LC-D SM	1 piece
29500760	EPIC DATA TS GOF SC MM	1 piece
29500761	EPIC DATA TS GOF SC SM	1 piece
29500764	EPIC DATA TS GOF SC-RJ MM	1 piece
29500765	EPIC DATA TS GOF SC-RJ SM	1 piece

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

Accessories

• GOF DUPLEX Patchcord refer to main catalogue 2020/21

EPIC® H-A 3 MTG

Innovative metal and plastic housing design

Info

• Small, rugged metal housing
• Integrated cable gland

EPIC® H-A 3 MTS

Innovative metal and plastic housing design

Info

• Small, rugged metal housing
• Integrated cable gland

Benefits

• Housing in plastic or metal version. For power supply in the smallest possible space

Application range

• Machine and equipment manufacturing
• Control engineering
• Electronic laboratory

Product features

• Hood
• Bolts for single lever
• Straight or side cable entry
• Versions with cable gland

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000437
ETIM 5.0/6.0 Class-Description:
Housing for industrial connectors

Material
EPIC® H-A 3 MTG
Housing: powder-coated zinc die-casting, grey
Lever: zinc-plated steel
EPIC® H-A 3 MTS
Housing: powder-coated zinc die-casting, grey
Lever: zinc-plated steel

Protection rating
IP 65 (latched)
NEMA 250 (latched)

VDE-tested
Certified production control:
VDE-REG. no.: B437
UL-tested:
UL File Number: E75770

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

Article number	Article description	Material	Colour	Cable gland	Cable clamping range	Pieces / PU
H-A housing: hood (straight cable entry)						
19512102	H-A 3 MTGV 7-13	Zinc die-casting		yes	7.0 - 13.0	10
H-A housing: hood (side cable entry)						
10422507	H-A 3 MTSV 7-13	Zinc die-casting	grey	yes	7.0 - 13.0	10

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

LAPP

EPIC® Industrial connectors

Rectangular connectors • EPIC® H-A 3 Housings

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

EPIC® H-A 3 MTGH
Innovative metal housing

Info
• Small, rugged metal housing in high version

Benefits
• Housing for power supply in the smallest possible space

Application range
• Machine and equipment manufacturing
• Control engineering
• Electronic laboratory

Product features
• Hood, high version
• Bolts for single lever
• Straight cable entry
• Versions with / without cable gland

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000437
ETIM 5.0/6.0 Class-Description: Housing for industrial connectors

Material
Housing: powder-coated zinc die-casting, grey
Lever: zinc-plated steel

Protection rating
IP 65 (latched)
NEMA 250 (latched)

VDE-tested
Certified production control:
VDE-REG. no.: B437
UL-tested:
UL File Number: E75770

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

Article number	Article description	M	Cable gland	Cable clamping range	Material	Pieces / PU
EPIC® H-A 3 MTGH						
19512103	EPIC H-A 3 MTGH M25	25			Zinc die-casting	10
19512104	EPIC H-A 3 MTGHV 9-17		yes	9.0 - 17.0	Zinc die-casting	10

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

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

EPIC® Industrial connectors

Rectangular connectors • EPIC® H-A 3 Housings

® LAPP

EPIC® H-A 3 MEG

Innovative metal housing

Info
• Innovative screw mounted housing

Benefits

• Housing for power supply in the smallest possible space

Application range

• Machine and equipment manufacturing
• Control engineering
• Electronic laboratory

Product features

• Screw mounted housing
• 1 lever
• Screw mounted housing, flat gasket included

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000437
ETIM 5.0/6.0 Class-Description:
Housing for industrial connectors

Material
Housing: powder-coated zinc die-casting, grey
Lever: zinc-plated steel
Sealing: NBR
Housing: grey thermoplastic, black
Lever: zinc-plated steel
Sealing: NBR

Protection rating
IP 65 (latched)
NEMA 250 (latched)

VDE-tested
Certified production control:
VDE-REG. no.: B437
UL-tested:
UL File Number: E75770

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

Article number	Article description	Material	Pieces / PU
EPIC® H-A 3 MEG			
10422505	EPIC H-A 3 MEG	Zinc die-casting	10
10422506	EPIC H-A 3 MEGS	Zinc die-casting	10

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

🖉 ✨ ⏲ 🔲 🗔 🛠 📡 🌐

EPIC® ULTRA H-A 3 TG

The robust and reliable industry connector housing as EMC version

Info

• EMC protection
• Corrosion-resistant
• Integrated cable gland

EPIC® ULTRA H-A 3 TS

The robust and reliable industry connector housing as EMC version

Info

• EMC protection
• Corrosion-resistant
• Integrated cable gland

EPIC® ULTRA H-A 3 EGS

The robust and reliable industry connector housing as EMC version

Info

• EMC protection
• Corrosion-resistant

Benefits

• Plugable with standard housings
• Optimum, low-resistance 360° screening
• All-purpose due to high corrosion resistance and high environmental protection.
• Space-saving due to compact dimensions
• High mechanical and chemical resistance

Application range

• In EMC-sensitive environments
• For fixed and flexible applications (e.g. machinery building, wind turbines)
• Construction machinery
• Electric motor manufacturing

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000437
ETIM 5.0/6.0 Class-Description: Housing for industrial connectors

Material
Housing: nickel-plated zinc diecasting
Lever: stainless steel
Sealing: NBR

IP Protection rating
IP 65
NEMA 250 (latched)

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

Product features

• Resistance to cyclic salt spray is tested according to IEC 68-2-52, severity level 2
• Salt spray testing according to DIN EN ISO 9227, method NSS, period of test 480 hours
• Corrosion-resistant according to DIN EN 6988
• Delivery including stainless steel screw for the inserts

EPIC® ULTRA H-A 3 EGS

• Screw mounted housing with one cable entry

Article number	Article description	Braid diameter (min)	Clamping range min	Clamping range max	M	Pieces / PU
EPIC® ULTRA H-A 3 TG						
10423600	EPIC® ULTRA H-A 3 TGV 5-9 BRUSH	3	5	9		10
10423610	EPIC® ULTRA H-A 3 TGV 7-9 BRUSH	3	7	9		10
10423620	EPIC® ULTRA H-A 3 TGHV 6-13 BRUSH	6	6	13		10
10423630	EPIC® ULTRA H-A 3 TGHV 9-13,5 BRUSH	6	9	13.5		10
EPIC® ULTRA H-A 3 TS						
10423650	EPIC® ULTRA H-A 3 TSV 5-9 BRUSH	3	5	9		10
10423660	EPIC® ULTRA H-A 3 TSV 7-9 BRUSH	3	7	9		10
EPIC® ULTRA H-A 3 EGS						
10423640	EPIC ULTRA H-A 3 EGS M20				20	10

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

ÖLFLEX®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
FLEXIMARK®
ACCESSORIES

ÖLFLEX®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
FLEXIMARK®
ACCESSORIES

VDE   c🆄us

EPIC® H-A 10

H-A connector insert up to 400V with service friendly screw connection

Info
• New higher voltage resistance, 400V in a small space
• Universal for current and voltage transmission

EPIC® H-A 16

H-A connector insert up to 400V with service friendly screw connection

Info
• New higher voltage resistance, 400V in a small space
• Universal for current and voltage transmission

Suitable housing
• EPIC® H-A 10
• EPIC® H-A 16

Similar products
• Further products with higher numbering in the internet. (H-A 32, H-A 48)

Benefits
• New higher voltage resistance, 400V in a small space
• Slim connector insert for standard application
• Service friendly screw connection for different cross section, PH1 screw heat suitable for electric screwdrivers
• Universal for current and voltage transmission
• Railway applications
  – Fire protection on railway vehicles: Test according EN 45545-2. Requirement sets R22 and R23. Hazard level HL1, HL2 and HL3

Application range
• Machine and equipment manufacturing
• Control engineering
• Plastics industry

Suitable tools
• Kraftform® adjustable torque screwdriver/ Kraftform Kompakt® Set

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000438
ETIM 5.0/6.0 Class-Description: Contact insert for industrial connectors

Rated voltage (V)
IEC: 400 V
UL: 600 V
CSA: 600 V

Rated impulse voltage
4 kV

Rated current (A)
IEC: 16 A
UL: 14 A
CSA: 16 A

Pollution degree
3

Flammability
UL94 V-0

Contact resistance
1.5 - 4 mohm

Contacts
Copper alloy, hard silver-plated

Number of contacts
EPIC® H-A 10
10 + PE
EPIC® H-A 16
16 + PE

Termination methods
Screw termination: 0.5 - 2.5 mm²

Stripping length (mm)
8

Material
PC, polycarbonate

Cycle of mechanical operation
500

VDE-tested
Certified production control:
VDE-REG. no.: B437
UL-tested: UL File Number: E75770

Temperature range
-40°C to +120°C

Article number	Article description	Contact type	Wire protection	Number of operating contacts	Pieces / PU
H-A 10 screw termination					
10440100	H-A 10 SS	male	yes	1 - 10	5
10441100	H-A 10 BS	female	yes	1 - 10	5
10440000	H-A 10 SS	male		1 - 10	5
10441000	H-A 10 BS	female		1 - 10	5
H-A 16 screw termination					
10530000	H-A 16 SS	male	yes	1 - 16	5
10531000	H-A 16 BS	female	yes	1 - 16	5
10532000	H-A 16 SS	male		1 - 16	5
10533000	H-A 16 BS	female		1 - 16	5

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

Similar products

• Further products with higher numbering in the internet. (H-A 32, H-A 48)

® **LAPP**

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

CE c UL us ECOLAB NSF EHEDG

SKINTOP® HYGIENIC / SKINTOP® HYGIENIC SC

Info

- New: Available up to size M40x1,5
- Ideal for hygienic critical areas - resistant, edge-free, robust and reliable
- No gaps, voids or outer lying thread - so no risk of contamination of food machines, facilities or components
- Also available wir EMC contact spring for screened cables
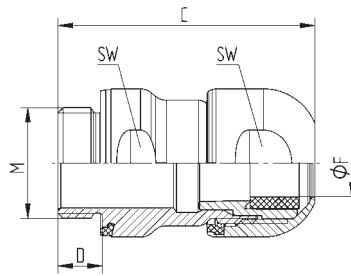
Benefits

- Hygienic Design for ideal cleaning results
- Smooth surfaces and no edges prevent the accumulation of fluids and formation of micro-organisms

Application range

- Food machinery, equipment and components
- For use in **product zone**
- Pharmaceutical industry

Norm references / Approvals

- EHEDG (TYPE EL Class I AUX) Hygienic design for machinery and components
- ECOLAB® Industry standard in the field of professional cleaning and disinfection in the food and beverage industry
- FDA 21 CFR 177.2600 Special sealing element for food and beverage industry in North America

- DIN EN 1672-2 Guideline for the design of machinery
- DIN EN ISO 14 159 Security of machinery Hygienic requirements for the design of machinery
- NSF/ANSI 169 Hygienic design for machinery and components

Product Make-up

- Material and shape provide an easy and safe cleaning
- By the blue coloring of the sealing material clearly distinguishable from foodstuffs
- One complete assembly is easily mounted from the outside
- Metric connection thread acc. to DIN EN 60423
- Basis for technical information DIN IEC 62444

Note

- Installation wrench for very high packing density on request

Technical data

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

Certifications
UL approval for M32x1,5 and M40x1,5 pending

Material
Body: stainless steel - V4A
(1.4404 / 316L)
Insert: polyamide
Sealing: special elastomer

Protection rating
IP 68 - 10 bar
IP 69
NEMA Type 1, 2, 4x, 6, 12

Temperature range
-20°C to +100°C

Article number	Article designation / size	Clamping range ØF mm	SW wrench size mm	Overall length C mm	Thread length D mm	Pieces / PU
SKINTOP® HYGIENIC						
53105100	M 12 x 1,5	4-6	16	38,4	6.5	5
53105110	M 16 x 1,5	6,5-9	20	41,4	7	5
53105120	M 20 x 1,5	9-12	24	46,4	8	5
53105130	M 25 x 1,5	11,5-15,5	29	48,9	8	5
53105140	M 32 x 1,5	16-20	36	56,0	9	5
53105141	M 40 x 1,5	22-27	45	62,0	9	5
SKINTOP® HYGIENIC SC						
53105300	M 12 x 1,5	4-6	16	39,9	6.5	5
53105301	M 16 x 1,5	6,5-9	20	43,4	7	5
53105302	M 20 x 1,5	9-12	24	46,4	8	5
53105303	M 25 x 1,5	11,5-15,5	29	48,9	8	5
53105314	M 32 x 1,5	16-20	36	56,0	9	5
53105315	M 40 x 1,5	22-27	45	62,0	9	5

Other sizes are available upon request.
Photographs and graphics are not to scale and do not represent detailed images of the respective products.

Accessories

- SKINDICHT® SM-M INOX refer to main catalogue 2020/21

CE

SKINTOP® FLAT

Cable gland with sealing insert for flat cables

Benefits

• Specially designed sealing insert enables very high IP protection
• Wide, variable clamping ranges
• Suitable for both angular and round cable contours
• Even pressure distribution on the flat cable
• Halogen-free

Application range

• For inserting flat cables
• Conveyor and transport systems, indoor cranes and high-rack facilities
• Lifts
• Cable trolley systems
• Submersible pumps

Product Make-up

• Metric connection thread acc. to DIN EN 60423
• Technical information referring to DIN IEC 62444

Note

• Size M 63 x 1.5 and M 63 x 1.5 plus in preparation

Suitable tools

• SKINMATIC® QUICK Set 1
• SKINMATIC® MH Set
• SKINMATIC® RZ

Technical data

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

Caution
Tightening torques see installation instructions

Material
Body: Nickel-plated brass
Insert: Polyamid
Sealing: NBR
O-Ring: NBR

Protection rating
IP 68 - 5 bar

Temperature range
-20°C to +100°C

Article number	Article designation / size	Cable width min. / max. mm	Cable thickness min. / max. mm	SW wrench size mm	Overall length C mm	Thread length D mm	Pieces / PU
SKINTOP® FLAT							
53119375	M 25 x 1,5	11-16	3-6	29	37.5	8	5
53119376	M 32 x 1,5	15 - 20	3 - 7	36	42.2	9	5
53119377	M 40 x 1,5	18 - 28	3 - 9	45	49.5	9	5
53119378	M 50 x 1,5	26 - 33	5 - 11	54	52.0	10	5

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

Accessories

• SKINDICHT® SM-M refer to main catalogue 2020/21

⊛ LAPP

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

CE c UL us
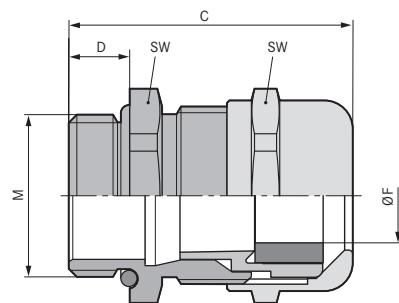
SKINTOP® MULTI

Info
• Compact multi cable bushing system with innovative gel technology

Benefits
• Large clamping range of 4 mm and AS-I BUS entry system by elastic gel technology with innovative membrane technology
• Easy installation of the cables even for high packing density
• Optimum strain relief at the entire cable bundle
• Error reduction through clear assignment of cable to be installed by a clear marker of implementing points
• Not used bushings remain securely sealed

Application range
• Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
• For not harnessed cables and media hoses
• Apparatus and switch cabinet construction
• Automation technology

Product features
• Integrated seal for the cable & housing (captive)
• Halogen-free
• UV-, Ozon and oil resistant
• The adhesive gel provides a very easy positioning at the enclosure during the assembling

Norm references / Approvals
• UL 508A for Industrial Control Panels
• UL File No. E349737

Product Make-up
• For cut-outs for 24-pin industrial connectors (36 x 112 mm)

Included
• SKINTOP® MULTI including mounting material

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 according to UL94 V-2

Note
Individual hole configuration on request

Material
Frame: Polycarbonat
Sealing: Gel

Protection rating
IP 68

Temperature range
-30°C to +110°C

Article number	Article designation / size	Max. number of executions	Number of cables x cable Ø	Pieces / PU
SKINTOP® MULTI				
52220065	SKINTOP® MULTI Version 1	22	16 x 3-7 mm, 6 x 8-12 mm	1
52220073	SKINTOP® MULTI Version 2	21	5 x 2-6 mm, 8 x 4-8 mm, 3 x 5-9 mm, 2 x 8-12 mm, 1 x 12-16 mm, 2 x AS-I BUS / 2 x 2-4 mm	1
52220080	SKINTOP® MULTI Version 3	30	30 x 2-6 mm	1
52220085	SKINTOP® MULTI Version 4	11	8 x 8-12 mm, 2 x 12-16 mm, 1 x 16-20 mm	1
52220101	SKINTOP® MULTI Version 5	27	27 x 4-8 mm	1
52220104	SKINTOP® MULTI Version 6	24	10 x 2-6 mm, 8 x 4-8 mm, 4 x 7-11mm, 2 x 10-14mm	1

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

Similar products
• SKINTOP® CUBE MULTI refer to main catalogue 2020/21
• SKINTOP® MULTI VENT refer to main catalogue 2020/21

Accessories
• SKINTOP® DIX-DV refer to main catalogue 2020/21

CE

SKINTOP® MULTI-M

Cable bushing system with metric thread

Info

• Compact, round multi cable bushing system with innovative gel technology

Benefits

• Large clamping range of 4 mm per bushing due to elastic gel technology with innovative membrane technology
• Easy installation of the cables even for high packing density
• Optimum strain relief at the entire cable bundle
• Not used bushings remain securely sealed

Application range

• Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
• For not harnessed cables and media hoses
• Apparatus and switch cabinet construction
• Automation technology

Product features

• Cables can be inserted directly without using a pricking awl
• Secure sealing at the cable & housing
• High packing density
• Halogen-free and silicone-free
• UV-, Ozon and oil resistant

Norm references / Approvals

• UL pending

Included

• SKINTOP® MULTI-M including locknut and O-ring

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 pending
Fire behaviour according to UL94 V-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: -30°C to +100°C
Without O-ring: -30°C to +110°C

Article number	Article designation / size	Max. number of executions	Number of cables x cable Ø	SW wrench size mm	Pieces / PU
SKINTOP® MULTI-M					
52220110	M40x1,5	12	2 x 1-4 mm, 10 x 2-6 mm	46	1
52220111	M50x1,5	18	18 x 2-6 mm	55	1
52220112	M63x1,5	30	30 x 2-6 mm	66	1

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

Similar products

• SKINTOP® DIX-M refer to main catalogue 2020/21
• SKINTOP® CUBE MULTI refer to main catalogue 2020/21
• SKINTOP® MULTI refer to page 25
• SKINTOP® MULTI VENT refer to main catalogue 2020/21

Accessories

• SKINTOP® DIX-DV refer to main catalogue 2020/21

LAPP

CE

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

SKINDICHT® MINI COLD

Info

• For low temperature ranges up to -60°C
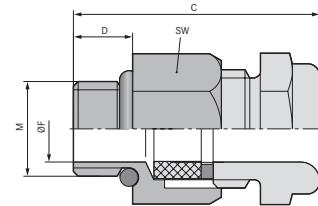
Benefits

• High degree of protection
• For the smallest conductor sizes
• Low height
• Gentle cable clamping
• High packing density

Application range

• For use wherever there is limited assembly space.
• Sensors
• Measurement and control technology

Product features

• Suitable for extreme minus temperatures

Technical data

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

Caution
Recommendation of torque
M 6 x 1   1,5 Nm
M 8 x 1   3,0 Nm
M 10 x 1 6,0 Nm

Material
Body: Nickel-plated brass
Sealing: Silicone

Protection rating
IP 66
IP 68 - 5 bar

Temperature range
-60°C to +100°C

Article number	Article designation / size	Clamping range ØF mm	SW wrench size mm	Overall length C mm	Thread length D mm	Clear opening F (mm)	Pieces / PU
SKINDICHT® MINI COLD							
52001877	M 6 x 1	2 - 3	9	19.7	5	3	50
52001878	M 8 x 1	3,5 - 5	11	20.5	5	5	50
52001879	M 10 x 1	5 - 7	14	22.3	5	7	50

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

Accessories

• SKINDICHT® SM-M refer to main catalogue 2020/21

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

SKINDICHT® TWIST-M

Swivelling coupler with hexagonal collar

Benefits

- Exact positioning of e.g. elbowed fittings
- Swivelling coupler with increased sealing
- Prevents cables and conduits to get damaged due to (unintentionally) encountered torsional stress

Application range

- Control cabinet manufacturing
- Control systems
- Mechanical engineering
- For mobile equipment and machines
- In combination with metric threaded (conduit) fittings

Product features

- Swivelling upper part
- High sealing performance

Technical data

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

Note
On request: size M 12, M 32, M 40, M 50, M 63

Material
Body: nickel-plated brass
Spring ring: spring steel
Sealing: FKM

Protection rating
IP 68

Temperature range
-20°C up to +200°C

Article number	Thread, male M1	Thread, female M2	SW wrench size mm	Pieces / PU
SKINDICHT® TWIST-M				
52104731	16 x 1.5	16 x 1.5	20	10
52104732	20 x 1.5	20 x 1.5	24	10
52104733	25 x 1.5	25 x 1.5	29	5

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

Accessories

- SKINDICHT® SM-M refer to main catalogue 2020/21

CE

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

SILVYN® MSK-U-M

Universal metric threaded coupler with integrated cable strain relief, for use with conduit fittings

ℹ Info

• Integrated SKINTOP® cable strain relief

Benefits

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

Application range

• In combination with metric threaded conduit fittings
• Used in areas where cables and wires need to be provided with strain relief and additional sealing

Product features

• Combination of SILVYN® and SKINTOP®

Note

• For suitable accessories, refer to SKINTOP® metric accessories

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC001180
ETIM 5.0/6.0 Class-Description: Screw connection for protective metallic hose

Note
On request: size M40, M50, M63

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

Protection rating
Cable: IP 68
Conduit: depending on the used conduit system

Temperature range
Fixed: –40°C up to +100°C
Dynamic: –25°C up to + 100°C

Article number	Metric size	Clamping range in mm	Suitable gland size	Pieces / PU
SILVYN® MSK-U-M				
55506129	12 x 1.5	3.5 - 7.0	M 12 x 1,5	5
55506130	16 x 1.5	4.5 - 10.0	M 16 x 1,5	5
55506131	20 x 1.5	7.0 - 13.0	M 20 x 1,5	5
55506132	25 x 1.5	9.0 - 17.0	M 25 x 1,5	5
55506133	32 x 1.5	11.0 - 21.0	M 32 x 1,5	5

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

Accessories

• SKINDICHT® SM-M refer to main catalogue 2020/21
• SKINTOP® DIX-M refer to main catalogue 2020/21
• SKINTOP® DIX-M AUTOMATION refer to main catalogue 2020/21
• SKINTOP® DIX-DV refer to main catalogue 2020/21

ÖLFLEX®
ETHERLINE®
HITRONIC®
EPIC®
SKINTOP®
FLEXIMARK®
ACCESSORIES

FLEXIMARK® Panel strip
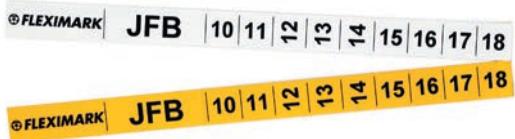
Benefits
- Good UV- and chemical resistance
- Easy creation and printing of panel strips using the module function of the FLEXIMARK® Software
- Self-adhesive on many surfaces
- Can also be mounted in FLEXIMARK® Character holder PGS

Application range
- Identification of electrical components and panels

Note
- Can be printed with the FLEXIMARK® Software and the FLEXIMARK® Thermal transfer printer SQUIX or EOS5
- Recommended ribbon: R71 55-360 resin BK (article no. 83259604)

Included
- Delivered as a roll of labels

Technical data

✎	**Adhesive** Acrylic-based permanent adhesive		♣	**Material** Halogen-free polyester
RAL	**Colour delivered** White Yellow		🌡	**Temperature range** -40 °C to +150 °C Processing: min. +10 °C

Article number	Article designation	Colour	Width (mm)	m / PU	PU
FLEXIMARK® Panel strip					
83260290	FLEXIMARK® Panel Strip 9,5-50m YE	yellow	9.5	50	1
83260292	FLEXIMARK® Panel Strip 14-50m YE	yellow	14	50	1
83260294	FLEXIMARK® Panel Strip 19-50m YE	yellow	19	50	1
83260291	FLEXIMARK® Panel Strip 9,5-50m WH	white	9.5	50	1
83260293	FLEXIMARK® Panel Strip 14-50m WH	white	14	50	1
83260295	FLEXIMARK® Panel Strip 19-50m WH	white	19	50	1

Photographs and graphics are not to scale and do not represent detailed images of the respective products.
FLEXIMARK® products are sold in packaging units. As example if you like to order 640 labels of LCK 32 you just need to order 1 PU instead of 640 single labels.

Accessories
- FLEXIMARK® Software 11.0 refer to page 31
- FLEXIMARK® thermal printer SQUIX and EOS5* refer to page 32

FLEXIMARK® Software 11.0

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

Info

- Technical support available in English free of charge (Phone: +4615577764, E-mail: support@fleximark.se)

Benefits

- For ease of use, the interface has been designed to be familiar to users of Microsoft® Office applications
- Enables printing of barcodes, QR-codes, logos, other pictures and serial codes
- Module marking for creation of panel strips
- Improved usability
- Image library including symbols used in electrical engineering

Application range

- Marking software that enables you to print all kinds of FLEXIMARK® labels easily and quickly

Product features

- Printer: laser, thermal transfer
- Available languages: German, English, Swedish and French
- Available barcodes: QR-Code, EAN-8, EAN-13, EAN-128, Code-128, Code-39, interleaved 2/5, UPC-A
- System requirements:
  20 MB free hard disc space
  Printer and driver for Microsoft®
  Windows 2000 or higher

Note

- Download www.lappkabel.com/service/ downloadcenter/markingsystem
- Online update service for new labels via Internet

Included

- Operating manual and help function in the program

Article number	Article designation	Language	PU
FLEXIMARK® Software 11.0			
83251090	FLEXIMARK® Software 11.0	DE / EN / SE / FR	1

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

FLEXIMARK® thermal printer SQUIX and EOS5*

Info

- Technical support available in English free of charge (Phone: +4615577764, E-mail: support@fleximark.se)

Benefits

- High print speed (up to 150 mm/sec)
- High print resolution: 300 dpi
- Simple communication with FLEXIMARK® Software
- 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

Note

- For cutting of e.g. shrink tubes use optional cutter for the EOS 5
- For perforating flat shrink tubes use thermal transfer printer SQUIX together with the optional perforation cutter

Included

- FLEXIMARK® Software
- FLEXIMARK® thermal printer SQUIX or EOS5 with operating manual and service manual
- Windows® driver
- Power supply USB cable (length 1.8 m)

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-Description: Accessories for fax/printer/MFC

Dimensions
SQUIX: 274x242x446 mm (HxWxD)
EOS5: 245x264x412mm (HxWxT)

Label rolls
Material thickness:
0.055-1.2 mm (SQUIX)
0.055-0.7 mm (EOS5)
Carrier width:
10-120 mm (SQUIX)
10-116 mm (EOS5)
Max. core diameter Ø:
38.0-100.0mm (SQUIX)
38-76mm (EOS5)

Ribbons
Run length up to 500m (SQUIX) or 360m (EOS5)

Speed
EOS5: Up to 150.00 mm/s
SQUIX: Up to 300.00 mm/s

Weight
SQUIX: 9.0 kg
EOS5: 5 kg

Material
Labels or continuous material on coils

Article number	Article designation	PU
FLEXIMARK® thermal printer SQUIX and EOS5*		
83259532	FLEXIMARK® Thermoprint EOS5/300	1
83259602	FLEXIMARK® Thermoprinter SQUIX 4/300M	1
83259536	FLEXIMARK® Cutter EOS5	1
83259603	FLEXIMARK® Perforation cutter PCU400 SQUIX	1

* Trade product, no Lapp product
Photographs and graphics are not to scale and do not represent detailed images of the respective products.
FLEXIMARK® products are sold in packaging units. As example if you like to order 640 labels of LCK 32 you just need to order 1 PU instead of 640 single labels.

Accessories

- FLEXIMARK® ribbons SQUIX, EOS4 and EOS5 refer to main catalogue 2020/21

PEW 12 universal tool

Benefits
- Parallel jaw closing
- Ergonomic handles
- One or two-hand operation
- Inserts are easily changeable

Application range
- Compatible with most of the crimping dies for the PEW 12 system (see product description of the cirmping dies)
- Crimping of almost all crimped connections with conductor cross-sections 0.08-95 mm^2

Product features
- Version PEW 12S has a larger opening angle and is therefore intended for the larger PEW 12S crimping dies (see item description of the crimping dies)

Included
- Crimping tool will be delivered without case and without inserts
- Empty case inluced placeholders for 15 crimping dies and 4 locators

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000168
ETIM 5.0/6.0 Class-Description: Crimp tool cable lugs, cable end sleeves, screen connection

RAL **Colour delivered**
Burnished
Chrome-plated pressing pliers available upon request (article no. 61813800)

Article number	Article designation	Pieces / PU
Pliers		
61813807	PEW 12 without inserts	1
61814610	PEW 12S without inserts	1
61813819	Case for PEW 12	1

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

Accessories

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

Crimping inserts for PEW 12 system

Benefits
- Product code is engraved on the upper and on the lower part of the die set
- Inserts are easily changeable

Note
- High flexibility: Interchangeable inserts that fit into either the PEW 12 / PEW 12S manual crimping tool, the E-PEW 12 electric crimping tool or the CM 25-1 crimping machine (compatibility see table)

Included
- Crimping dies are delivered without tool

Info
- Extended portfolio

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC001282
ETIM 5.0/6.0 Class-Description: Insert for crimp tool cable lugs, cable end sleeves, screen connection

Article number	Article designation	Suitable for	Pressing range (mm²)	Crimping profile	Shield Ø mm	PEW 12	PEW 12S	E-PEW	CM 25-1	Pieces / PU
Insulated and non-insulated conductor end sleeves										
61813802	PEW 12.090		0,5 - 6,0	trapezoid		x		x	x	1
61813803	PEW 12.091		10,0 - 25,0	w-pressing		x		x	x	1
61813993	PEW 12.331		35,0 - 50,0	w-pressing		x		x		1
61813911	PEW 12S.093		70	w-pressing			x	x		1
61813912	PEW 12S.094		95	w-pressing			x	x		1
TWIN end sleeves										
61813913	PEW 12.090-6		2x0,5 - 2x4	trapezoid		x		x	x	1
61815642	PEW 12.097		2x6 - 2x16	w-pressing		x		x	x	1
Insulated cable lugs and panel connectors										
61813914	PEW 12.064		0,14 - 1	conical ISO crimp		x		x		1
61813915	PEW 12.064 Locator		0,14 - 1			x		x		1
61813812	PEW 12.060		0,5 - 6,0	conical ISO crimp		x		x		1
Non-insulated cable lugs										
61813916	PEW 12.1071		0,5 - 10	w-pressing		x		x	x	1
61813862	PEW 12.033		16 - 25	mandrel pressing		x		x	x	1
Non-insulated panel connectors										
61814600	PEW 12.045	Tab widt 2,8	0,1 - 2,5	roller pressing		x		x		1
61814601	PEW 12.045 Locator	Tab width 2,8	0,1 - 2,5			x		x	x	1
61813991	PEW 12.838	Tab width 4,8	0,5 - 1,5	roller pressing		x		x	x	1
61813992	PEW 12.838 Locator	Tab width 4,8	0,5 - 1,5			x		x	x	1
61813808	PEW 12.050	Tab width 6,3	0,5 - 6,0	roller pressing		x		x	x	1
61813809	PEW 12.050 Locator	Tab width 6,3	0,5 - 6,0			x		x	x	1
61815643	PEW 12.743	Tab width 6,3	1,5 -2,5	roller pressing		x		x	x	1
61815644	PEW 12.743 Locator	Tab width 6,3	1,5 -2,5			x		x	x	1
61815645	PEW 12.745-1	Tab width 6,3	4 - 6	roller pressing		x		x	x	1
61815646	PEW 12.745-1 Locator	Tab width 6,3	4 - 6			x		x	x	1
One piece screen connectors RSK										
61815635	PEW 12.1448/101 A	RSK 5101		special crimping profile	1,2-1,7	x		x		1
61815636	PEW 12.1449/101 B	RSK 5101		special crimping profile	1,8-2,2	x		x		1
61815637	PEW 12.1450/201 C	RSK 5201		special crimping profile	2,2-2,5	x		x		1
61815638	PEW 12.1341/201 D	RSK 5201		special crimping profile	2,5-3,0	x		x		1
61815639	PEW 12.1451/201 E	RSK 5201		special crimping profile	3,0-3,3	x		x		1
61815640	PEW 12.1452/201 F	RSK 5201		special crimping profile	3,3-3,6	x		x		1
61815641	PEW 12.1453/301 G	RSK 5301		special crimping profile	3,6-4,1	x		x		1
61813869	PEW 12.374/301 H	RSK 5301		special crimping profile	4,1-4,7	x		x		1
61813868	PEW 12.373/301 J	RSK 5301		special crimping profile	4,7-5,1	x		x		1
61813864	PEW 12.599/401 K	RSK 5401		special crimping profile	5,1-5,8	x		x		1
61813865	PEW 12.375/401 L	RSK 5401		special crimping profile	5,8-6,3	x		x		1
61813866	PEW 12.354/401 M	RSK 5401		special crimping profile	6,3-7,0	x		x		1
61813867	PEW 12.619/401 N	RSK 5401		special crimping profile	7,0-7,6	x		x		1
Two-part screen connectors SHIELD-KON®										
61813881	PEW 12.1425 SK	GSC 101 / 128 / 149 / 156 / 175		hexagonal pressing		x		x		1
61813882	PEW 12.1426 SK	GSC 187 / 194 / 199 / 205 / 219 / 225 / 232		hexagonal pressing		x		x		1
61813883	PEW 12.1427 SK	GSC 261 / 275 / 281 / 287 / 297		hexagonal pressing		x		x		1
61813884	PEW 12.1428 SK	GSC 312 / 327 / 348		hexagonal pressing		x		x		1
61813885	PEW 12.1429 SK	GSC 359 / 375		hexagonal pressing		x		x		1
61813886	PEW 12.1430 SK	GSC 405 / 415 / 425		hexagonal pressing		x		x		1
61813887	PEW 12S.1440 SK	GSC 460 / 500		hexagonal pressing			x	x		1

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

⊗ **LAPP**

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

Shrink tube PROTECT-HF

Info
- Thin walled
- Halogen-free

Benefits
- Flexible
- Halogen-free products do not develop corrosive or toxic gases in the event of a fire, are flame-retardant, show little fire propagation and develop only little smoke
- PROTECT-HF RW: Can be flattened for marking purposes, suitable for railway applications

Application range
- Insulation, protection and cable bundling
- Green-yellow shrink tube: For identifying and marking earthing connectors and cables
- PROTECT-HF RW: For railway applications and marking systems

Product features
- Halogen-free
- Good chemical resistance
- Flame retardant
- Silicone-free
- UV-resistant (only colour: black)

Norm references / Approvals
- PROTECT-HF / Box: Flammability class FMVSS 302
- PROTECT-HF RW: Flammability class ASTM D 635-HB, Railway normative (BS-6853 (1999) Vehicle category 1A, EN 45545-2 HL 3, LUL 1-085 A3), Boeing BSS 7239 toxic gas generation M7

Included
- PROTECT-HF Box: Stackable boxes for easy storage
- PROTECT-HF: Plastic bag with 1.22 m units
- PROTECT-HF RW: Delivered on spool

Suitable tools
- HG 2320 hot-air pistol refer to main catalogue 2020/21

Technical data

Classification ETIM 5/6
ETIM 5.0/6.0 Class-ID: EC000217
ETIM 5.0/6.0 Class-Description: Shrink tubing

On request
Other colours are available upon request

Note
Thin walled
Dielectric strength: 20 kV/mm

Info
Shrinking ratio: 2:1

Colour delivered
Black, Green-yellow, Yellow, White

Material
Polyolefin

Temperature range
Shrinking temperature: +90°C
PROTECT-HF / Box: -30 °C to +105 °C
PROTECT-HF RW: -55°C to +105°C

Article number	Article description	Colour	Shrinkage range (mm)	Panel thickness, shrunk +- 0.1 mm	Contents (m)	PU
Shrink tube PROTECT-HF Box						
61742489	PROTECT-HF Box 1,2/0,6 BK	black	1.2 - 0.6	0,41	15	1
61742490	PROTECT-HF Box 1,6/0,8 BK	black	1.6 - 0.8	0,43	15	1
61742491	PROTECT-HF Box 2,4/1,2 BK	black	2.4 - 1.2	0,51	15	1
61742492	PROTECT-HF Box 3,2/1,6 BK	black	3.2 - 1.6	0,51	15	1
61742493	PROTECT-HF Box 4,8/2,4 BK	black	4.8 - 2.4	0,51	12	1
61742494	PROTECT-HF Box 6,4/3,2 BK	black	6.4 - 3.2	0,65	12	1
61742495	PROTECT-HF Box 9,5/4,7 BK	black	9.5 - 4.7	0,65	10	1
61742496	PROTECT-HF Box 12,7/6,4 BK	black	12.7 - 6.4	0,65	8	1
61742497	PROTECT-HF Box 19,1/9,5 BK	black	19.1 - 9.5	0,77	5	1
61742498	PROTECT-HF Box 25,4/12,7 BK	black	25.4 - 12.7	0,89	3	1
Shrink tube PROTECT-HF						
61742472	PROTECT-HF 1,2/0,6 BK	black	1.2 - 0.6	0,41	61	1
61742473	PROTECT-HF 1,6/0,8 BK	black	1.6 - 0.8	0,43	61	1
61742474	PROTECT-HF 2,4/1,2 BK	black	2.4 - 1.2	0,51	61	1
61742475	PROTECT-HF 3,2/1,6 BK	black	3.2 - 1.6	0,51	61	1
61742476	PROTECT-HF 4,8/2,4 BK	black	4.8 - 2.4	0,51	61	1
61742477	PROTECT-HF 6,4/3,2 BK	black	6.4 - 3.2	0,65	30.5	1
61742478	PROTECT-HF 9,5/4,7 BK	black	9.5 - 4.7	0,65	30.5	1
61742479	PROTECT-HF 12,7/6,4 BK	black	12.7 - 6.4	0,65	30.5	1
61742480	PROTECT-HF 19,1/9,5 BK	black	19.1 - 9.5	0,77	30.5	1
61742481	PROTECT-HF 25,4/12,7 BK	black	25.4 - 12.7	0,89	18.3	1
61742482	PROTECT-HF 3,2/1,6 GN/YE	green-yellow	3.2 - 1.6	0,51	61	1
61742483	PROTECT-HF 4,8/2,4 GN/YE	green-yellow	4.8 - 2.4	0,51	61	1
61742484	PROTECT-HF 6,4/3,2 GN/YE	green-yellow	6.4 - 3.2	0,65	30.5	1
61742485	PROTECT-HF 9,5/4,7 GN/YE	green-yellow	9.5 - 9.5	0,65	30.5	1
61742486	PROTECT-HF 12,7/6,4 GN/YE	green-yellow	12.7 - 6.4	0,65	30.5	1
61742487	PROTECT-HF 19,1/9,5 GN/YE	green-yellow	19.1 - 9.5	0,77	30.5	1
61742488	PROTECT-HF 25,4/12,7 GN/YE	green-yellow	25.4 - 12.7	0,89	18.3	1

Article number	Article description	Colour	Shrinkage range (mm)	Panel thickness, shrunk +- 0.1 mm	Contents (m)	PU
Shrink tube PROTECT-HF RW						
61742499	PROTECT-HF RW 2,4/1,2 BK	black	2.4 - 1.2	0.43 - 0.6	300	1
61742501	PROTECT-HF RW 3,2/1,6 BK	black	3.2 - 1.6	0.55 - 0.72	300	1
61742502	PROTECT-HF RW 4,8/2,4 BK	black	4.8 - 2.4	0.55 - 0.72	300	1
61742503	PROTECT-HF RW 6,4/3,2 BK	black	6.4 - 3.2	0.65 - 0.8	300	1
61742504	PROTECT-HF RW 9,5/4,7 BK	black	9.5 - 4.7	0.65 - 0.75	150	1
61742505	PROTECT-HF RW 12,7/6,4 BK	black	12.7 - 6.4	0.65 - 0.75	100	1
61742506	PROTECT-HF RW 19,1/9,5 BK	black	19.1 - 9.5	0.7 - 0.85	50	1
61742507	PROTECT-HF RW 25,4/12,7 BK	black	25.4 - 12.7	0.85 - 1.0	50	1
61742508	PROTECT-HF RW 2,4/1,2 WH	white	2.4 - 1.2	0.43 - 0.6	300	1
61742509	PROTECT-HF RW 3,2/1,6 WH	white	3.2 - 1.6	0.55 - 0.72	300	1
61742510	PROTECT-HF RW 4,8/2,4 WH	white	4.8 - 2.4	0.55 - 0.72	300	1
61742511	PROTECT-HF RW 6,4/3,2 WH	white	6.4 - 3.2	0.65 - 0.8	300	1
61742512	PROTECT-HF RW 9,5/4,7 WH	white	9.5 - 4.7	0.65 - 0.75	150	1
61742513	PROTECT-HF RW 12,7/6,4 WH	white	12.7 - 6.4	0.65 - 0.75	100	1
61742514	PROTECT-HF RW 19,1/9,5 WH	white	19.1 - 9.5	0.7 - 0.85	50	1
61742523	PROTECT-HF RW 25,4/12,7 WH	white	25.4 - 12.7	0.85 - 1.0	50	1
61742515	PROTECT-HF RW 2,4/1,2 YE	yellow	2.4 - 1.2	0.43 - 0.6	300	1
61742516	PROTECT-HF RW 3,2/1,6 YE	yellow	3.2 - 1.6	0.55 - 0.72	300	1
61742517	PROTECT-HF RW 4,8/2,4 YE	yellow	4.8 - 2.4	0.55 - 0.72	300	1
61742518	PROTECT-HF RW 6,4/3,2 YE	yellow	6.4 - 3.2	0.65 - 0.8	300	1
61742519	PROTECT-HF RW 9,5/4,7 YE	yellow	9.5 - 4.7	0.65 - 0.75	150	1
61742520	PROTECT-HF RW 12,7/6,4 YE	yellow	12.7 - 6.4	0.65 - 0.75	100	1
61742521	PROTECT-HF RW 19,1/9,5 YE	yellow	19.1 - 9.5	0.7 - 0.85	50	1
61742522	PROTECT-HF RW 25,4/12,7 YE	yellow	25.4 - 12.7	0.85 - 1.0	50	1

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

LAPP

ÖLFLEX®

ETHERLINE®

HITRONIC®

EPIC®

SKINTOP®

FLEXIMARK®

ACCESSORIES

CHAMPION Drum dispenser

Info

- For professional and gentle unwinding of even sensitive cables

Technical data

⌀ **Dimensions**
52: 577x565x120mm
67: 727x565x120mm

☑ **General data**
Weight:
52: 7.2kg
67: 9.0kg
Material: glass-fiber reinforced polyamide and aluminium

Benefits

- Robust construction with 200 kg load capacity
- Safer stability thanks to noise-reducing rubber feet
- Easily adjustable carrier rollers with 3 different positions
- Maintenance-free

Application range

- Drum dispenser for everyday use in the workshop or on the construction site
- Also as storage solution in the workshop
- With additional rollers for mobile use

Product features

- For drum diameter from 150 up to 900mm
- Available in two sizes for drums up to 520 or 670mm width
- Lightweight hybrid frame made of glass fiber reinforced polyamide and aluminum
- Provided with 4 non-slip rubber feet
- Optionally with 4 rollers for drum transport

Article number	Article designation
CHAMPION Drum dispenser	
85008070	CHAMPION 52
85008071	CHAMPION 67
85008072	CHAMPION Steering rollers set
85008073	CHAMPION Rubber feet (4 pc)

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

LAPP worldwide

Algeria
EURL Chemin Solution Installation
Villa N°A 149 Les Castors
Bordj El Kifan, ALGER
Tel.: +213 21 214604
Fax: +213 21 214604
www.eurlcsi.com

Argentina
NAKASE SRL
Calle 49 No. 5764
B1653AOX
Villa Ballester
1870 BUENOS AIRES
Tel.: +54 11 4768 4242
Fax: +54 11 4768 4242
ventas@nakase.com.ar
www.nakase.com.ar

Armenia
Integral design & engineering
8 Tumanyan street
International Business Center
Yerevan 0001 ARMENIA
Tel.: +374 10 520188

Australia
Lapp Australia Pty Ltd
12 Grevillea Street
EASTERN CREEK, NSW 2766
Tel.: 1800 931 559
sales@lappaustralia.com.au
www.lappaustralia.com.au

Austria
Lapp Austria GmbH
Bremenstraße 8
4030 LINZ
Tel.: +43 732 781272-444
Fax: +43 732 781272-34
sales@lappaustria.at
www.lappaustria.at

Azerbaijan
Rapid Supply Solution
Ahmad Rajabli str. 1/8
Adore Plaza, 4th floor
1029 BAKU
Tel.: +99 412 4801097
Mob.: +99 477 4119999
sales@rapid.az
www.rapid.az

Belarus
PNS – Professional Network Systems
Dzerzhinskogo str. 75
223043 TSNYANKA
Tel.: +375 17 5009400
Fax: +375 17 5009402
info@pns.by
www.pns.by

Belgium – Luxembourg
LAPP Benelux B.V.
Van Dijklaan 16
5581 WG WAALRE
The Netherlands
Tel.: +32 78 353060
Fax: +32 78 353065
sales.lappbenelux@lappgroup.com
www.lappbenelux.com

Brazil
Cabos Lapp Brasil Ltda.
Av. Dr. Mauro Lindemberg
Monteiro, 628
Galpao18, Osasco
CEP 06278-010 SAO PAULO
Tel.: +55 11 21664166
Fax: +55 11 21664165
vendas@lappgroup.com.br
www.lappgroup.com.br

Bulgaria
V&V Isomatic Ltd.
40a, Pirin Str.
1680 SOFIA
Tel.: +359 29 583111
Fax: +359 29 582270
office@viv-isomatic.com
www.viv-isomatic.com

Canada
Lapp Canada Inc.
3505 Laird Road, Unit 10
L5L 5Y7 MISSISSAUGA, Ontario
Tel.: +905 8 205492
Fax: +905 8 206516
sales@lappcanada.com
www.lappcanada.com

Chile
Desimat Chile
Av. Puerto Vespucio 9670
Parque Industrial Puerto Santiago
Pudahuel, SANTIAGO
Tel.: +56 2 25851200
Fax: +56 2 27470153
ventaschile@desimat.cl
www.desimat.cl

China
Lapp Kabel Shanghai Co., Ltd.
23A Zhaofeng Universe Building
1800 Zhongshan Road West
SHANGHAI 200235
Tel.: +86 21 64400833
Fax: +86 21 64400834
info@lappgroup.com.cn
www.lappgroup.com.cn

Lapp Cable Works Shanghai Co., Ltd.
No. 6 Standard Workshop Lingang
Industrial Area
1555 Cenglin Road, Pudong District
SHANGHAI 201306
Tel.: +86 21 20955833
Fax:+86 21 20955834

Colombia
Transmisiones SAS
Kra 69 B No. 21 A-24
110931 BOGOTÁ
Tel.: +57 1 4126898
Fax: +57 1 2929736
info@transmisiones.de
www.transmisiones.de

Costa Rica
Elvatron, SA
De Repifreno en la Uruca
400 metros Nte.
SAN JOSÉ, Costa Rica
P.O. Box 8-3770 (1000)
Tel.: +506 2242-9955
Fax: +506 2520-0697
elvatron@elvatron.com
www.elvatron.com

Croatia
TIM KABEL
Savska cesta 103
10360 ZAGREB – Sesvete
Tel.: +385 1 5555900
Fax: +385 1 5555901
zagreb@tim-kabel.hr
www.tim-kabel.hr

Cyprus
3 BRO Ltd.
3 Limnou Str.
Office 301
3820 LIMASSOL
Tel.: +357 25255353
info@threebro.com
www.threebro.com

Czech Republic
LAPP Czech Republic s.r.o.
Bartosova 315, Kvitkovice
765 02 OTROKOVICE
Tel.: +420 573 501011
Fax: +420 573 394650
info@lappgroup.cz
www.lappgroup.cz

Denmark
LAPP Danmark
Korskildeeng 6
2670 GREVE
Tel.: +45 43 950000
Fax: +45 43 950009
kundeservice.dk@lappgroup.com
www.lappgroup.dk

Dominican Republic
Ing. Rudy Moreno & Asociados SRL
Prolongación 27 de Febrero Esq.
Cuidad Agraria, Edif. Yarudith
SANTO DOMINGO OESTE
Tel.: +809 334 4394
Tel.: +809 372 3565
ventas@ingmorenoyasociados.com
www.ingrudymorenoyasoc.com

Ecuador
Elsystec S.A.
Electricidad Sistemas y Tecnología
Vasco de Contreras N35-251 y
Mañosca CP. 170521 QUITO
Tel.: +593 2 2456510
Fax: +593 2 2455698
elsystec@elsystec.com.ec
www.elsystec.com.ec

Egypt
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

El Salvador
Intek El Salvador S.A. de C.V.
Calle Gabriela Mistral No. 373
Entre Blvd. Los Héroes y 33 Av. Nte.
SAN SALVADOR, El Salvador CA.
Tel.: +503 2260-8888
Fax: +503 2260-8855
inteksv@intek-ca.com
www.intek-ca-com

Estonia
Lapp Miltronic SIA Eesti filiaal
Kastani pst. 10
Rakvere
LÄÄNE-VIRUMAA 44307, Eesti
Tel.: +372 6518970
info.ee@lappgroup.com
ee.lappgroup.com

Finland
Lapp Automaatio Oy
Martinkyläntie 52
01720 VANTAA
Tel.: +358 20 764 64
info.automaatio@lappgroup.com
www.lappautomaatio.fi

Lapp Connecto Oy
Varastokatu 10
05800 HYVINKÄÄ
Tel.: +358 20 764 63
info.connecto@lappgroup.com
www.lappconnecto.fi

France
Lapp France s.a.r.l.
Technopôle Forbach Sud
Rue Avogadro
57600 FORBACH
Tel.: +33 387 849084
Fax: +33 387 841794
lappfrance@lappgroup.com
www.lappfrance.fr

LAPP MULLER SAS
Z.A. du Grand Pont
83310 GRIMAUD
Tel.: +33 494 566500
Fax: +33 494 43487
info@mullercables.com
www.mullercables.com

Câbleries Lapp Sarl
Technopôle Forbach Sud
Rue Avogadro
57600 Oeting
Tel.: +33 387 844343
Fax: +33 387 871641
accueil@lappgroup.com

Georgia
Insta LLC
Sergo Zakariadze str. 8
0177 TBILISI
Tel.: +995 32 2202020
Fax: +995 32 2202022
sales@insta.ge
www.insta.ge

Germany
U.I. Lapp GmbH
Schulze-Delitzsch-Straße 25
70565 STUTTGART
Tel.: +49 711 783801
Fax: +49 711 78382640
info@lappkabel.de
www.lappkabel.de

Lapp Systems GmbH
Oskar-Lapp-Str. 5
70565 STUTTGART
Tel.: +49 711 783804
Fax: +49 711 78383520
info@lappkabel.de
www.lappkabel.de

Ghana
PROCESS AND PLANT AUTOMATION Ltd.
No. 3 Becca Villa, behind Cal Bank
Baatsona, Spintex Road.
P.O. Box Sr 95
ACCRA
Tel.: +233 3 02812680
ekua@automationghana.com
www.automationghana.com

Great Britain
Lapp Limited
Unit 3 Perivale Park
Horsenden Lane South
GREENFORD, Middlesex, UB6 7RL
Tel.: +44 20 87587800
Fax: +44 20 87587880
sales@lapplimited.com
www.lappgroup.co.uk

Greece
Dimoulas Special Cables S.A.
100-102 Lenorman Str.
10444 ATHENS
Tel.: +30 21 05157610
Fax: +30 21 05157611
info@dimoulas.gr
www.dimoulas.gr

Guatemala
Intek Guatemala S.A.
4a. Ave. 10 – 31 Zona 9
CIUDAD DE GUATEMALA
Tel.: +502 2507-0500
Fax +502 2507-0501
intekgt@intek-ca.com
www.intek-ca.com

Honduras
intek Honduras
Ofi-Bodegas Premier
100 mts. antes del Peaje a La Lima
Edificio PWC-14B
SAN PEDRO SULA
Tel.: +504 2559-4748, -50
Fax: +504 2559-4740
intekhn@intek-ca.com
www.intek-ca.com

Hungary
Lapp Hungária Kft.
Neumann János u.1
2040 BUDAÖRS
Tel.: +36 23 501-250
Fax: +36 23 501-259
sales@lapphungaria.hu
www.lapphungaria.hu

India
LAPP India Pvt. Ltd.
1/3, 9th Cross, 9th A Main Road
Jayanagar 2nd Block,
BENGALURU – 560011
Tel.: +91 80 47405222
info@lappindia.com
www.lappindia.lappgroup.com

Indonesia
PT. JJ-Lapp Cable SMI
Graha INTI FAUZI, 7th Floor
Jl. Buncit Raya No. 22
JAKARTA 12510
Tel.: +62 21 27537051
Fax: +62 21 27537052
sales_jjli@jjsea.com
www.jj-lappcable.com

Iran
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Island
Johan Rönning Ltd.
Klettagardar 25
104 REYKJAVIK
Tel.: +354 5 200800
Fax: +354 5 200888
ronning@ronning.is
www.ronning.is

Israel
Arrow Control Cables Ltd.
7 Zavitan Street
4995000 MOSHAV NEHALIM
Tel.: +972 3 9074887
Fax: +972 3 9074889
info@arrowcables.com
www.arrowcables.com

Italy
LAPP ITALIA S.R.L.
Via Lavoratori Autobianchi 1
Building 20
20832 DESIO (MB)
Tel.: +39 0362 4871
Fax: +39 0362 487330-340
lappitalia@lappitalia.it
www.lappitalia.it

Camuna Cavi s.r.l.
Via Generale Treboldi, 128
25048 EDOLO (BS)
Tel.: +39 0364 773411
Fax: +39 0364 770120
info@camunacavi.it
www.camunacavi.it
Sales Office
Via Lavoratori Autobianchi 1
Building 20
20832 DESIO (MB)

Japan
Lapp Japan k.k.
3F Iseki Bldg
2-3-26 Kudanminami, Chiyoda-ku
TOKYO 102-0074
Tel.: +81 3-4520-6245
Fax: +81 3-4520-6246
sales@lappgroup.jp
www.lapp.co.jp

Jordan
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Kazakhstan
Lapp Kazakhstan LLP
Abaya ave. 13, office 1004
010000 ASTANA
Tel.: +7 7172 476144
info@lappgroup.kz
www.lapp.kz

Korea
Lapp Korea LLC.
42, Jangangongdan 8-gil
Jangan-myeon, Hwaseong-si
Gyeonggi-do, Republic of Korea
Tel.: +82 1688 1099
Fax: +82 31 697 4099
dowoomi@lappgroup.com
www.lappkorea.com
www.lapp4u.com

Kuwait
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

LAPP worldwide

Latvia
Lapp Miltronic SIA
Ulbrokas 44a
RÌGA LV1021, Latvija
Tel.: +371 6 7501900
info.lv@lappgroup.com
lv.lappgroup.com

Lebanon
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Libya
Al Jouda Co.
Al Fath – Street
Al Buraq – Building 3rd floor
BENGHAZI
Tel.: +218 91 7433363
kamal_ahf@yahoo.co.uk

Lithuania
LAPP MILTRONIC filialas
Aukštaičių g. 6
11341 VILNIUS, Lietuva
Tel.: +370 5 2780390
info.lt@lappgroup.com
lt.lappgroup.com

Macedonia
Siskon Dooel
Taskenska 4A
1000 SKOPJE
Tel.: +389 2 3062423
Fax: +389 2 3061250
siskon@mt.net.mk
www.siskon.com.mk

Malaysia
JJ-LAPP Cable (M) sdn. Bhd.
16, Jalan 51A/225,
46100 PETALING JAYA SELANGOR
Tel.: +603 78 616288
Fax: +603 78 616299
sales_jjlm@jjsea.com
www.jj-lappcable.com

Malta
G & E Electronics Ltd.
Genics Bldgs.
Giov. Papaffy Str.
B'KARA BKR 4021
Tel.: +356 21 486816
Fax: +356 21 497103
info@gemalta.com
www.gemalta.com

Mexico
Lapp Mexico S de RL de CV
Del Bosque 1205-1
Parque Industrial El Bosque II
45619, Tlaquepaque, Jalisco
Tel.: +52 33 36660250
ventas@lappmexico.com
www.lappmexico.com

Republic of Moldova
Lapp Romania SRL
A1 Business Park
(Autostrada Bucuresti – Pitesti, Km 13.5)
Aleea Camilla nr. 11, Unitatea G2
Comuna Dragomiresti Vale
Sat Dragomiresti Deal
Judet ILFOV, 077096
Tel.: +40 213 1009-61
Fax: +40 213 1009-59
office@lappkabel.ro
www.lappkabel.ro

Mongolia
TECHSOURCE Co., Ltd.
2nd floor, Misheel building
Chinggis Avenue
Khan-Uul district
ULAANBAATAR 15160
Tel.: +976 70 117171, 94 010920
info@techsource.mn
www.techsource.mn

Morocco
Fiabel
16 Allée des Dahlias (Beausite)
Bd la Grande Ceinture
20250 Ain Sebâa, CASABLANCA
Tel.: +212 522 4033-01, -02
Tel.: +212 522 4046-16, -17, -18
Fax: +212 522 403303
www.fiabel.ma

Netherlands
LAPP Benelux B.V.
Van Dijklaan 16
5581 WG WAALRE
Tel.: +31 40 2285000
Fax: +31 40 2285010
sales.lappbenelux@lappgroup.com
www.lappbenelux.com

New Zealand
Engineering Computer
Services Ltd.
Cnr Te-Rapa & Ruffell Rd
P.O. Box 20204
HAMILTON, 3288
Tel.: +64 7 8492211
Fax: +64 7 8492220
garry@lappgroup.co.nzw
www.lappgroup.co.nz

Nicaragua
Electronica Tecnica SA.
De la Óptica Nicaraguense
3C al este, 1/2C al Sur
Casa No. 38 Residendial Bolonia
MANAGUA
Tel.: +505 2254-4913
info@ni.elvatron.com
mercadeo@elvatron.com
nicaragua.elvatron.com

Norway
LAPP Norway AS
Eikringen 11
3036 DRAMMEN
Tel.: +47 32 261300
info.no@lappgroup.com
www.lapp.no

Oman
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Pakistan
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Panama
Lapp Panama S.A.
Building 9075, Unit 9
PanAmerica Corporate Center
Panamá Pacífico, Arraiján.
Tel.: +507 320 5090
sales.panama@lappgroup.com
lapplatinamerica.lappgroup.com

Peru
DIPROSOL PERU SAC
Av. Velasco Astete 2371
Surco LIMA 33
Tel.: +51 1 2752765
Fax: +51 1 2752776
ventas@diprosol.com.pe
www.diprosol.com.pe

Philippines
JJ-LAPP Cable (P) Inc
Unit 704, Philplans Corporate Center
1012 Triangle Drive
Bonifacio Global City
1634 TAGUIG CITY, MANILA
Tel.: +632 786 7566
Fax: +632 786 7544
sales_jjlp@jjsea.com
www.jj-lappcable.com

Poland
Lapp Kabel Sp. z o.o.
Ulica: Profesjonalna 1
Biskupice Podgórne
55-040 KOBIERZYCE
Tel.: +48 71 3306300
Fax: +48 71 3306306
info@lapppolska.pl
www.lapppolska.pl

Portugal
Policabos S.A.
Av. Pedro Álvares Cabral
Lugar da Capa Rota
2710-144 SINTRA
Tel.: +351 21 9178640
Fax: +351 21 9178649
policabos@policabos.pt
www.policabos.pt

Qatar
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Romania
Lapp Romania SRL
A1 Business Park
(Autostrada Bucuresti – Pitesti, Km 13.5)
Aleea Camilla nr. 11, Unitatea G2
Comuna Dragomiresti Vale
Sat Dragomiresti Deal
Judet ILFOV, 077096
Tel.: +40 213 1009-61
Fax: +40 213 1009-59
office@lappkabel.ro
www.lappkabel.ro

Russia
Lapp Russia OOO
Mira st., 7, Krutye Kluchi
443028 SAMARA
Tel.: +7 846 2315155
info@lappgroup.ru
www.lapp.ru

Saudi Arabia
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Senegal
Sénégal Automation Technology
Assistance (SATA Sarl)
Avenue Birago Diop x rue G Point E
BP 5344, DAKAR
Tel.: +221 338601030
Fax: +221 338207093

Serbia
VESIMPEX d.o.o.
Patrijarha Dimitrija 24 (DMB)
11090 BEOGRAD-RAKOVICA
Tel.:   +381 11 4049-070, -071, -072, -073
Magacin/warehouse: +381 11 4049-075
Fax: +381 11 4049-077
Mob.: +381 63 693-373
info@vesimpex.rs
www.vesimpex.rs

Singapore
Lapp Asia Pacific Pte. Ltd.
No.9 Tuas South St. 3
SINGAPORE 638017
Tel.: +65 6558-7176
Fax: +65 6558-7081
lappapac.lappgroup.com

JJ-LAPP Cable (S) Pte. Ltd.
No.9 Tuas South St 3
SINGAPORE 638017
Tel.: +65 6508-6200
Fax: +65 6863-1271
sales_jjls@jjsea.com
www.jj-lappcable.com

Slovakia
LAPP SLOVENSKO, s.r.o.
Piaristicka 2
949 24 NITRA
Tel.: +421 376 578095
Fax: +421 376 578096
info@lappgroup.sk
www.lappgroup.sk

Slovenia
Lapp, d. o. o.
Limbuška cesta 2
2341 LIMBUŠ
Tel.: +386 2 4213550
Fax: +386 2 4213571
info@lappslovenia.com
www.lappslovenia.com

South Africa
LAPP Southern Africa
51 Brunton Circle
Founders View South
Modderfontein
1645 GAUTENG
Tel.: +27 11 2013200
Fax: +27 11 6095850
info@lappkabel.co.za
www.lappcable.co.za

Spain
Lapp España
Avda. de les Garrigues, 34 – 36
Parque Empresarial Mas Blau II
08820 EL PRAT DE LLOBREGAT
(Barcelona)
Tel.: +34 902 108 669
Fax: +34 934 796 272
info@lappgroup.es
www.lappgroup.es

Sweden
LAPP Miltronic AB
Kungshagsvagen 7
Box 1022
611 29 NYKOPING
Tel.: +46 155 77700
info.se@lappgroup.com
www.lapp.se

Sales office Denmark
Korskildeeng 6
2670 GREVE
Tel.: +45 43 950000
Fax: +45 43 950009
kundeservice.dk@lappgroup.com
www.lappgroup.dk

Switzerland
Volland AG
Ifangstrasse 103
8153 RÜMLANG
Tel.: +41 44 8179797
Fax: +41 44 8179700
info@volland.ch
www.volland.ch

Syria
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Taiwan
DKSH Taiwan Ltd.
10th Floor, No. 22, Lane 407
Tiding Blvd., Sec. 2
Neihu Technology Park
TAIPEI CITY 114-93
Tel.: +886 2 87527654
Fax: +886 2 87518688
wilson.wang@dksh.com

Thailand
JJ-LAPP Cable (T) Ltd.
23/110-117 Sorachai Building
25-29th FL
Soi Sukhumvit 63 (Ekamai),
Sukhumvit Road, Klongton Nua,
Wattana, BANGKOK 10110
Tel.: +66 27 878288
Fax: +66 27 878299
sales_jjlt@jjsea.com
www.jj-lappcable.com

Tunisia
ELECSA TN, Groupe TTI
Zone industrielle
8030 GROMBALIA
Tel.: +216 72 255954
Fax: +216 72 255980
commercial@elecsa-tn.com
www.tti-tn.com

Turkey
LAPP KABLO San. ve Tic. Ltd. Şti.
Atatürk Mah. Şeref Sok. No: 55/1
34758 ATAŞEHIR-İSTANBUL
Tel.: +90 216 4565699
Fax: +90 216 4565687-89
info@lapp.com.tr
www.lapp.com.tr

Ukraine
Lapp Ukraine LLC
201 – 203, Kharkivske shose
02121 KIEV
Tel.: +38 044 495-6000
Fax: +38 044 490-7630
sales@lappukraine.com
www.lappukraine.com

United Arab Emirates
LAPP CABLES MIDDLE EAST FZE
A-502 Headquarters Building
PO Box 341223 Dubai, UAE
Dubai Silicon Oasis
DUBAI
Tel.: +971 4 3712905
Fax: +971 4 3712918
lappme@lappgroup.com
www.lappgroup.ae

Uruguay
Reprinter LTDA
Avda. Italia 6481
MONTEVIDEO
Tel.: +598 2600-7343
Fax: +598 2600-8658
g.lezama@reprinter.com.uy
www.uruwire.com

USA
Lapp USA, Inc.
29 Hanover Road
FLORHAM PARK, NJ 07932
Tel.: +1 973 6609700
Fax: +1 973 6609330
sales@lappusa.com
www.lappusa.com

Lapp Tannehill, Inc.
8675 Eagle Creek Parkway Suite 900
SAVAGE, MN 55378
Tel.: +1 952 8816700
Fax: +1 952 8810743
sales@lapptannehill.com
www.lapptannehill.com

Uzbekistan
Energy Power Solution LLC
Khurshid-Sh. Rashidov str. 16
100017 TASHKENT
Tel.: +998 71 2050911
sales@eps.uz
www.eps.uz

Venezuela
Somerinca, C.A.
Qta Corazón de Jesus
4ta Transversal de Montecristo
calle el Carmen, de los Dos Caminos
1070 CARACAS, Venezuela
Tel.: +58 212 2352748/1081/1696
Fax: +58 212 2399341
klocmoeller@cantv.net
www.somerinca.com

Vietnam
JJ-Lapp Cable Vietnam Co., Ltd
12th floor, Unit 1206, Sailing Tower
111A Pasteur Street, District 1
HO CHI MINH CITY
Tel.: +84 8 62887668
Fax: +84 8 38236776
sales_jjlv@jjsea.com
www.jj-lappcable.com

Yemen
see United Arab Emirates
LAPP CABLES MIDDLE EAST FZE

Notes

Info

Reach us around the world.
Or closer to home.

Enter the
world of LAPP:

Follow LAPP on:

Image source: LAPP, Maiwolf, Wolfram Scheible, Bystronic glass, Comau SpA, EMAG, Fotolia, iStock

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 this 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 were designed.

ÖLFLEX®
Power and control cables

UNITRONIC®
Data communication systems

ETHERLINE®
Data communication systems
for Ethernet technology

HITRONIC®
Optical transmission systems

EPIC®
Industrial connectors

SKINTOP®
Cable glands

SILVYN®
Protective cable conduit systems
and cable carrier systems

FLEXIMARK®
Marking systems

Follow LAPP on

LAPP

06/20.9909 2761

www.lappgroup.com

To contact your local LAPP representative,
please visit **www.lappgroup.com/worldwide**