

SKINTOP®

Multi-cable entry systems





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Success through values

Rock solid, high performance. Regional roots, global aspirations. Fast, reliable, high quality – and development that is always one step ahead. For products for the railway industry as well. This is LAPP.

The southwest region of Germany is considered one of the most innovative and powerful industrial sectors in the world, and for good reason. LAPP is a part of this region, helping to guide it and its success worldwide. As a completely family run company, we know: Everything that we have achieved since our founding in 1959 is based on the

daily commitment of our skilled staff and partnerships with our customers based on trust. Each of them has made a decisive contribution to our mutual success.

Today, LAPP is one of the world's leading manufacturers of cables, leads, cable accessories and systems of the highest level of quality. We have approximately 3,770 employees worldwide. With 17 production sites on four continents, more than 39 sales companies and hundreds of dedicated consulting experts, we are always close by. And not just physically: customer

proximity cannot be measured in mere kilometres. It is based on listening, making your challenges our own and developing solutions that help to further your business model. Candid closeness and a trusting, partnership-based cooperation are more than just words for LAPP, they are values upon which we have built our family company.

The result? Intelligent and reliable connectivity solutions precisely tailored to the needs of our globally active customers. For you as well.

Customer-oriented Successful Family based Innovative. **LAPP.**

- Founded in 1959
- A leading manufacturer of cables, leads, accessories and complete system solutions for connection technology
- Approximately 3,770 employees worldwide
- 17 production facilities
- 39 sales companies
- Hundreds of dedicated consulting experts worldwide

Reliably connecting the world

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

No matter where you are - we are always by your side. Our plants, sales companies, partners and, above all, our competent teams of advisers ensure we offer you a

comprehensive service on every continent. We do not simply distribute cable technology, we also manufacture our products ourselves - which represents another advantage for you. As a manufacturer with 17 of our own production facilities, you will benefit from our expertise in the development, design and manufacture of cables, system products and cable accessories. Thanks to this expertise, we can guarantee that LAPP will provide you with the quality that you require and that you demand.

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

8
Strong brands

100
Sales partners

17
Production sites

1
Innovation after another

Employees from
152
countries

More than
40,000
Standard products

Over
39
of its own sales companies

3,770
Employees

Our global corporate network



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Mexico	Lapp Mexico S de RL de CV
Panama	Lapp Panamá, S.A
USA	Lapp USA Inc. Lapp Cable Works Inc. Lapp Tannehill Inc. Phoenix Wire & Cable Inc.

Europe

Austria	Lapp Austria GmbH
Benelux	Lapp Benelux B.V.
Czech Republic	Lapp Kabel s.r.o.
Denmark	Lapp Miltronic AB
Estonia	Lapp Miltronic SIA
Finland	Lapp Automaatio Oy Lapp Connecto Oy
France	Lapp France S.A.R.L. Câbleries Lapp S.A.R.L. Lapp Muller SAS
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Lithuania	Lapp Miltronic UAB
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Poland	Lapp Kabel SP. z.o.o. Lapp Connecto Polska Sp. z.o.o.
Romania	Lapp Kabel Romania SRL S. C. Fender Cables S.r.l.
Slovenia	Lapp d.o.o.
Spain	Lapp Kabel España S.L.U.
Sweden	Miltronic AB Fleximark AB
Switzerland	Lapp Tec Kabel AG
Turkey	Lapp Kablo San. ve. Tic. Ltd. Sti.
Ukraine	Lapp Ukraine LLC

Africa

South Africa	Lapp Southern Africa (PTY) Ltd.
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Asia

China	Lapp Kabel Shanghai Co. Ltd.
India	Lapp India Pvt. Ltd.
Indonesia	JJ-Lapp Cable (I) SMI
Japan	Lapp Logistics Pte. Ltd.

Kazakhstan	Lapp Kazakhstan LLP
Malaysia	JJ-Lapp Cable (M) Sdn Bhd
Philippines	JJ-Lapp Cable (P) Inc.
Russia	Lapp Russia OOO
Singapore	JJ-Lapp Cable (S) Pte. Ltd. Lapp Logistics Pte. Ltd.
South Korea	Lapp Korea LLC.
Thailand	JJ-Lapp Cable (T) Ltd.
United Arab Emirates	LAPP Cables Middle East FZE
Vietnam	JJ-Lapp Cable (V) Ltd.

Australia

Australia	LAPP Australia Pty Ltd
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CONTACT

Easy access

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* Service not available in every country



SKINTOP® Multi-cable entry system

Everywhere where a secure connection between the machinery and plant is required and where lots of cables have to be inserted into an extremely tight space, the SKINTOP® multi-cable entry system is used. The portfolio includes solutions for assembled and non-assembled cables and wires. SKINTOP® stands for large clamping ranges, system flexibility and high degree of protection. Whether it is for less demanding areas of application or for extreme stresses due to water, dust, vibrations or thermal or chemical loads, LAPP offers a reliable solution for every application. The application ranges for SKINTOP® multi-cable entry systems are various:

- In control cabinets, subdistributors and housings where there is little space to insert wires, cables and media hoses due to high packing density

- Components that require quick and simple change or removal of assemblies (maintenance, service, reconfiguration)
- In order to enable flexible, quickly adaptable, modular systems for the purposes of Industry 4.0

The flexible SKINTOP® CUBE system is based on two different frame sizes and individual modules with variable cable clamping ranges, which are easily assembled, individually replaceable and can be disassembled without disassembling the frame. The systems allows up to 10 assembled cables to be inserted.

When using cables and wires without pre-assembled connectors, the SKINTOP® CUBE MULTI gel insert enables up to 23 cables to be inserted.

The SKINTOP® MULTI multi-cable entry system consists of just one non-detachable, very compact component. It also has an innovative gel insert that covers clamping ranges that have not been able to be achieved up to now.

The entire multi-cable entry system product family from LAPP makes an impression with its flexible, compatible system construction, which enables replacement or expansion of individual modules.

We will be able to personally advise you about our products and services. Moreover, we will also be glad to offer a customised hole configuration.

SKINTOP® CUBE

The sturdy, glass fibre-reinforced polyamide SKINTOP® CUBE FRAME is available in two sizes (for 16-pin or 24-pin connector installation openings). Eight to ten cables of different diameters can be installed in minimal space within it.

The clip modules consist of two identical parts with specially developed, patented sealing inserts. These are simply put on the cable for assembly, positioned anywhere in the frame and fixed securely onto the frame with the clamping brackets - without any special tools. Additional lubricant or sealant is not required during assembly in order to maintain the protection rating.

This two-part solution allows assembled cables to be inserted, enables pre-assembly and eases maintenance and service work. SKINTOP® CUBE FRAME and SKINTOP® CUBE MODULE are geared up for interna-

tional use. Both parts are approved for cable bushing systems according to UL50, UL508A, UL50E and CSA C22.2 "Enclosures For Electrical Equipment/Industrial Control Panels".

The sealing modules have a wide clamping range. The highly flexible sealing material therefore provides optimum cable sealing.

There are six modules available: from 4-6 mm, 6-9 mm, 9-12 mm and 2-16 mm. Dummy modules that also cover cable diameters of 1-3 mm as well as modules specially designed for AS-I Bus cables. In order to remove the installed cable, unfasten the clamping brackets with a screwdriver and remove the corresponding clip module. In order to do this, the frame does not have to be removed from the housing, which saves time and money.



SKINTOP® CUBE MULTI

The SKINTOP® CUBE MULTI is used everywhere that cables are routed into a housing without connectors and media hoses. They aid the installation of non-assembled cables and medium hoses in control systems, control cabinet and apparatus construction, as well as in automation technology. Two versions allow up to 23 cables to be inserted in a single SKINTOP® CUBE FRAME.

The innovative gel technology enables, amongst other things, clamping ranges of 3-6 mm, 6-9 mm, 9- 3 mm and 13-16 mm, whereby the gel adjusts perfectly to the surface contours of the cable. A particularly high protection rating is thus achieved. The gel membrane remains closed, even if fewer cables are installed than is possible.



SKINTOP® MULTI

SKINTOP® MULTI makes an impression with its compact design and space-saving arrangement on the control cabinet. Due to the multi-cable entry system, the fitter can easily, quickly and flexibly insert round cables with very various diameters as well as AS-I Bus cables.

For this purpose, the innovative, elastic gel membrane is pierced and the cable that is to be installed is inserted. The use of the

gel technologies enables large clamping ranges of 4 mm. This substantially reduces the diversity of types and simplifies selection and documentation.

The elastic gel insert forms the seal between the cable and housing, by which means a high protection rating of IP 68 and optimum strain relief on the entire cable bundle is achieved, in order to ensure secure cable entry.

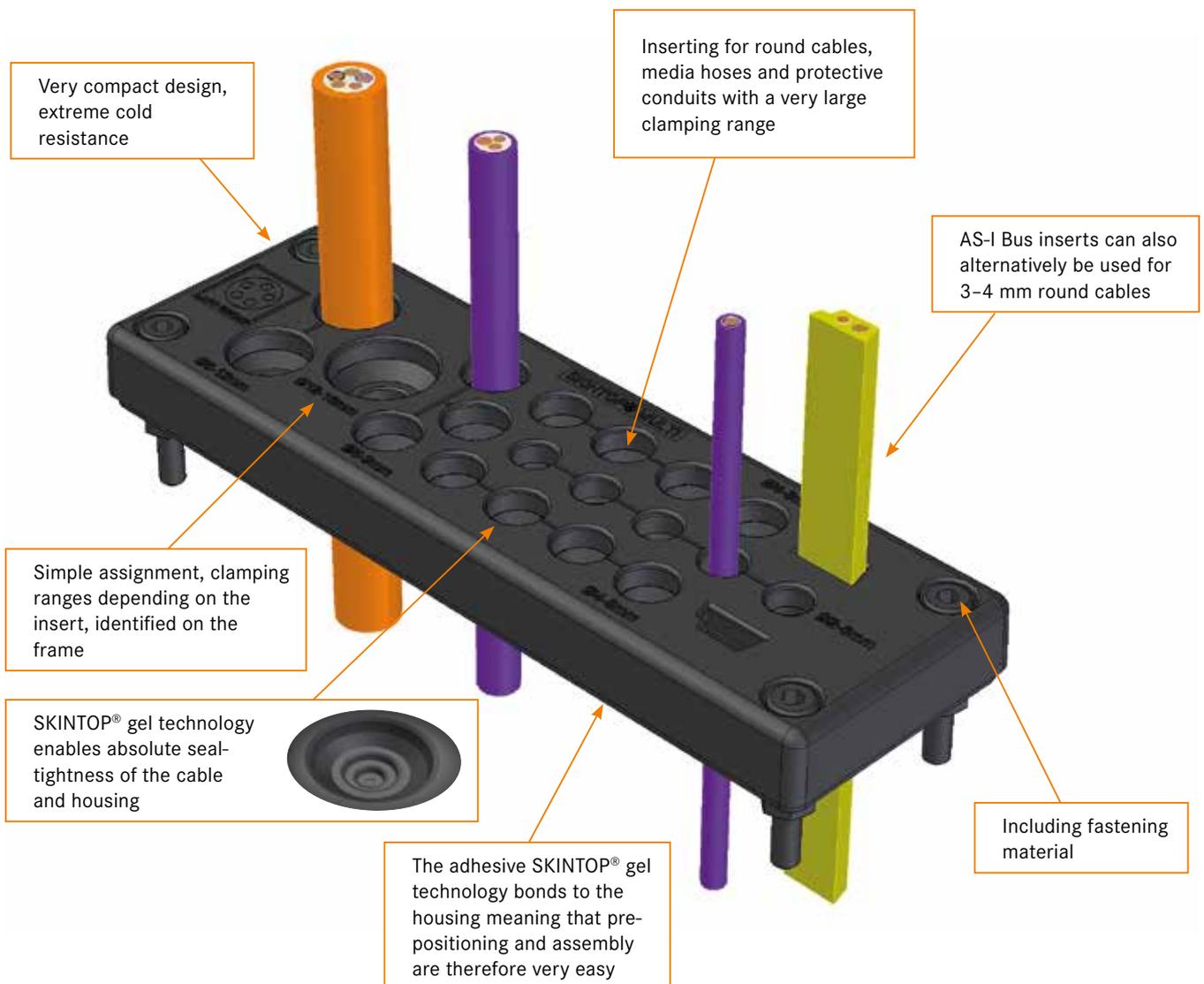


You can find further information at:



SKINTOP® MULTI: all advantages at a glance

- Extremely compact construction, one component with integrated sealing function
- Innovative SKINTOP® gel technology for large clamping ranges
- Self-explanatory – clear assignment of the cable diameters
- Inserting of round cables with an outer diameter up to 20mm and AS-I Bus cables
- The adhesive effect of the gel enables simplified positioning during first assembly
- 1 piece packaging unit
- Protection rating IP 68
- Oil, UV and ozone-resistant, halogen-free
- Fire behaviour according to UL94 V-2
- UL approval for the North American market



SKINTOP® MULTI



Benefits

- Large clamping range of 4 mm and AS-I BUS entry system by elastic gel technology with innovative membrane technology
- Easy assembly with high packing density
- Optimum strain relief at the entire cable bundle
- Error reduction through clear assignment of the cables to be installed by clear marking of the implementing points
- Unoccupied points remain securely sealed

Application range

- Used in areas where a lot of cables and wires need to be inserted into housing with minimum space requirements
- For cables that have not been assembled and media conduits
- Control system, control cabinet and apparatus construction
- Automation technology

Product features

- Integrated seal for the cable & housing (captive)
- Halogen-free
- UV-, ozone and oil-resistant
- The adhesive effect of the gel enables very easy positioning at the housing during assembling

Norm references / approvals

- UL 508A
- UL 508A Industrial Control Panels (e.g. cabinets)
- UL-File Nr. E349737

Design

- For connector mounting cut-outs 24-pin (36 x 112 mm)

Included in delivery

- SKINTOP® MULTI including mounting material

Info

- Compact multi-insertion system with innovative gel technology

Technical data



Classification

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



Certifications

UL File No. E349737
Fire behaviour according to UL94 V-2



Note

Individual hole configuration on request



Material

Frame: Polycarbonate
Seal: 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 clamping range	Pieces / PU
SKINTOP® MULTI				
52220065	SKINTOP® MULTI Version 1	22	6 x 8-12 mm, 16 x 3-7 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 oder 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

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

Similar products

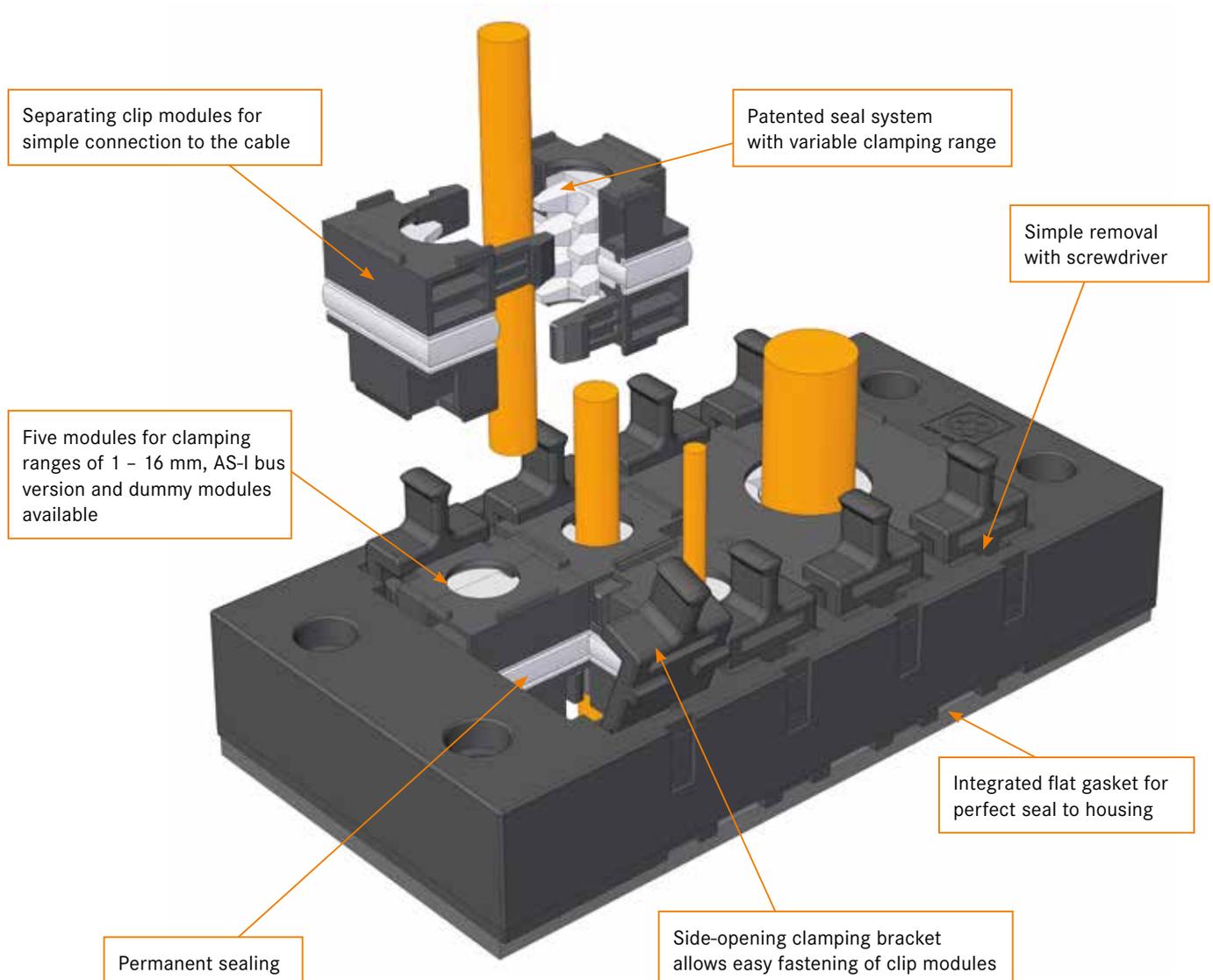
- SKINTOP® CUBE MULTI

Accessories

- SKINTOP® DIX-DV
- Kraftform Kompakt® 10

SKINTOP® CUBE: All benefits at a glance

- Few parts due to large, variable clamping ranges
- Easy assembly and removal
- No special tools, sealants or lubricants required
- Assembly cables can be removed individually without disassembling the frame
- Secure strain relief
- Permanent vibration protection
- Frame can be assembled from both inside and outside
- Protection rating IP 64, NEMA 12
- Resists oils, greases, UV radiation and ozone
- UL approval for the American market



SKINTOP® CUBE



Benefits

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

Application range

- For installation of harnessed cables
- Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
- Apparatus and switch cabinet construction
- Electronic installations
- Automation technology

Norm references / Approvals

- UL 508A Industrial Control Panels (e.g. cabinets)
- UL File Nr. E349737

Product Make-up

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

Note

- SKINTOP® CUBE MODULE 20x20 BLIND can be used as a blind module and for clamping ranges 1 - 3 mm

Included

- Including mounting material



Info

- Innovative multi-cable bushing system with variable clamping ranges for high flexibility in assembling
- When disassembling, the frame can remain on the housing and the plug-in module remains securely on the cable

Technical data



Classification

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



Certifications

UL File Nr. E349737
Fire behaviour according to UL94 V-2



Material

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



Protection rating

IP 64



Temperature range

Dynamic: -20°C up to +80°C
Static: -40°C up to +80°C

Article number	Article designation / size	Clamping range ØF (mm)	Max. number of executions	Pieces / PU
SKINTOP® CUBE Frame				
52220000	SKINTOP® CUBE FRAME 16		8 (for 20x20 modules)	1
52220001	SKINTOP® CUBE FRAME 24		10 (for 20x20 modules)	1
SKINTOP® CUBE clip modules				
52220004	SKINTOP® CUBE MODULE 20x20 BLIND	1 - 3		5
52220002	SKINTOP® CUBE MODULE 20x20 SMALL	4 - 6		5
52220003	SKINTOP® CUBE MODULE 20x20 LARGE	6 - 9		5
52220040	SKINTOP® CUBE MODULE 20x20 AS-I BUS			5
52220005	SKINTOP® CUBE MODULE 40x40 SMALL	9 - 12		5
52220006	SKINTOP® CUBE MODULE 40x40 LARGE	12 - 16		5
52220007	SKINTOP® CUBE MODULE 40x40 BLIND			5

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

Similar products

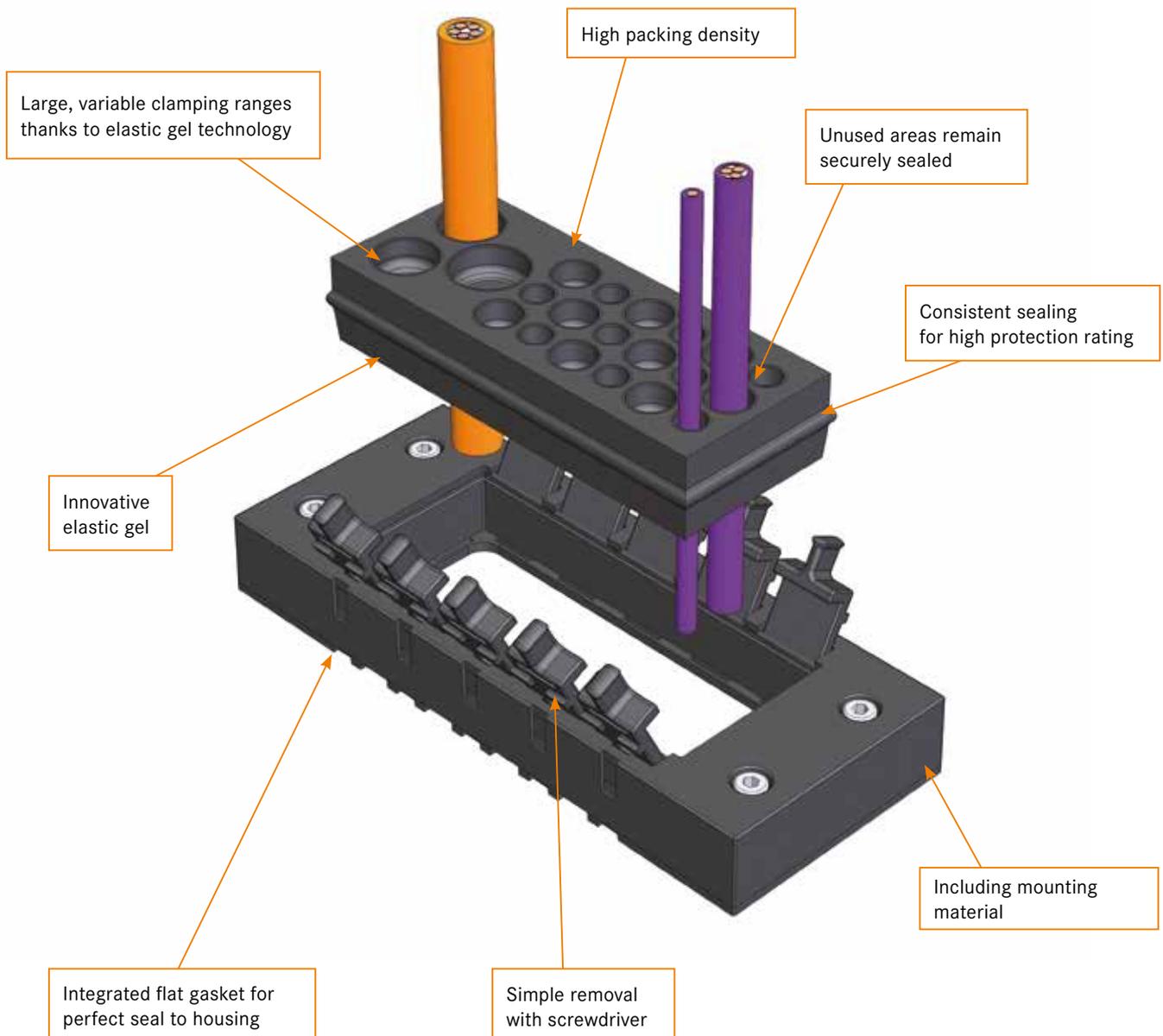
- SKINTOP® CUBE MULTI
- SKINTOP® MULTI

Accessories

- Kraftform Kompakt® 10

SKINTOP® CUBE MULTI: All benefits at a glance

- Multi-cable entry system for high packing density
- Innovative SKINTOP® gel membrane technology
- Large, variable clamping ranges thanks to elastic gel technology
- Enormous savings potential thanks to quick installation/reconfiguration
- Optimum strain relief on the entire cable bundle
- SKINTOP® CUBE FRAME can remain fixed to the housing during dismantling
- Protection rating IP 66
- Oil, UV and ozone-resistant
- Fire behaviour according to UL94 V-2
- UL approval for the North American market



SKINTOP® CUBE MULTI



Benefits

- Large, variable clamping ranges due to elastic gel technology
- Easy installation, high packing density
- Optimum strain relief at the entire cable bundle
- Simplified servicing due to easy assembling and disassembling
- Not used holes 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

Norm references / Approvals:

- UL 508A Industrial Control Panels (e.g. cabinets)
- UL File Nr. E349737

Product features

• SKINTOP® CUBE MULTI Version 1

- Number of cable bushings:**
- 9 x 3-6 mm clamping range
 - 9 x 6-9 mm clamping range
 - 2 x 9-13 mm clamping range
 - 1 x 13-16 mm clamping range

• SKINTOP® CUBE MULTI Version 2

- Number of cable bushings:**
- 23 x 5-8 mm clamping range

Product Make-up

- The system consists of SKINTOP® CUBE FRAME and a gel insert SKINTOP® CUBE MULTI.
- Removal of the gel insert by opening the holder
- For cut-outs for 24-pin industrial connectors (36 x 112 mm)

Note

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

Included

- Including mounting material

Info

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

Technical data



Classification

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



Certifications

UL File Nr. E349737
Fire behaviour according to UL94 V-2



Note

Individual hole configuration on request



Material

Frame: Glass fiber reinforced polyamide
Frame seal: CR
Gel insert: PC / Gel



Protection rating

IP 66



Temperature range

-30°C to +100°C

Article number	Article designation / size	Max. number of executions	Number of cables x clamping range	Pieces / PU
SKINTOP® CUBE Frame				
52220001	SKINTOP® CUBE FRAME 24			1
SKINTOP® CUBE MULTI Gel-insert				
52220050	SKINTOP® CUBE MULTI Version 1	21	9 x 3-6 mm; 9 x 6-9 mm; 2 x 9-13 mm; 1 x 13-16 mm	1
52220053	SKINTOP® CUBE MULTI Version 2	23	23 x 5-8 mm	1
SKINTOP® CUBE MULTI Gel-insert incl. frame				
52220056	SKINTOP® CUBE MULTI Version 1 incl. frame	21	9 x 3-6 mm; 9 x 6-9 mm; 2 x 9-13 mm; 1 x 13-16 mm	1
52220057	SKINTOP® CUBE MULTI Version 2 incl. frame	23	23 x 5-8 mm	1

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

Similar products

- SKINTOP® CUBE
- SKINTOP® MULTI

Accessories

- Kraftform Kompakt® 10

SKINTOP® CUBE SORTIMO® T-BOXX



Benefits

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

Application range

- For installation of harnessed cables
- Used in areas where a lot of cables and wires need to be inserted into housings with minimum space requirements
- Apparatus and switch cabinet construction
- Electronic installations
- Automation technology

Product features

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

Product Make-up

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

Included

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

Info

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

Technical data



Classification

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



Certifications

UL File Nr. E349737
Fire behaviour according to UL94 V-2



Material

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



Protection rating

IP 64



Temperature range

Dynamic: -20°C up to +80°C
Static: -40°C up to +80°C

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

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

Accessories

- Kraftform Kompakt® 10
- FLEXIMARK® LB-10 W

SKINTOP® BRUSH ADD-ON 24



Benefits

- Faster, easier screen contact
- Optimum EMC protection
- Quicker installation and EMC contacting compared with other systems
- Maximum assembly freedom during adjustment
- Usable with different cable diameters at the same time

Application range

- For the EMC screen contacting of cables when using the SKINTOP® multi-cable entry systems
- For EMC-compliant earthing of the copper braiding, or for cables with copper shaft sheath
- Control cabinet manufacturing
- Automation systems

Product features

- Low-resistance screen contact
- Visible, large-scale screen contact

Included

- Brush frame
- Spacers
- Mounting material



Info

- EMC Kit with brush technology suitable for the SKINTOP® multi cable bushing systems for the 24 pin cut-outs

Technical data



Caution

The installation dimensions can be found in appendix T21



Material

Frame: Aluminium
EMC brush: brass



Temperature range

-30°C to +110°C

Article number	Dimensions overall	Executions range	Borehole	PU
SKINTOP® BRUSH ADD-ON 24				
52220089	40x120 mm	36.0 - 112.0 mm	4.2 mm	1

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Power and control cables



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Data communication systems



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