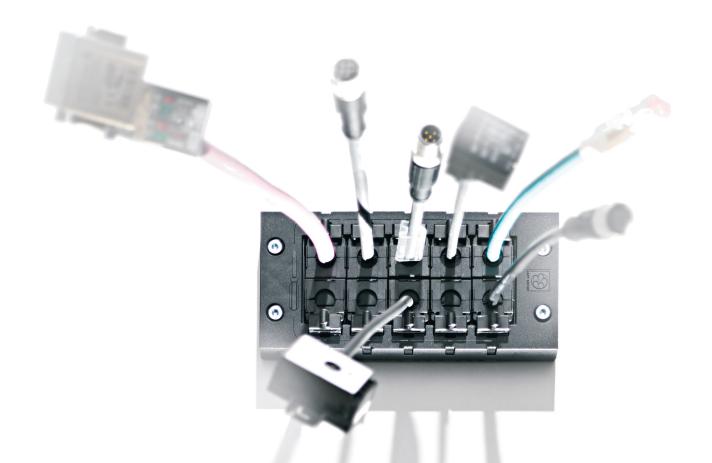
# **SKINTOP® CUBE & CUBE MULTI**

Innovative Multi-Cable Bushing Systems



# make the right connection

# make the right connection

At Lapp Group we understand the critical role our products play in a wide array of industries and manufacturing applications. Our business partners depend on the quality, performance and durability of our total power connectivity solutions to keep their facilities and lines up and running, even in the most demanding conditions.

When you choose Lapp Group you connect with a group of industry experts who help our customers achieve optimum productivity and greater business success. You connect to a robust and proven line of diversified products like our SKINTOP® CUBE multi-cable bushing system. You connect with a company that combines international capabilities with domestic manufacturing; ensuring the utmost in product quality and availability. And you connect with unrivaled customer support that is with you every step of the way.

Both our SKINTOP<sup>®</sup> CUBE and SKINTOP<sup>®</sup> CUBE MULTI are innovative flexible, easy-to-use bushing systems that provide improved sealing and clamping capabilities. Service to the cables is greatly simplified as cables can be replaced without removing the frame from the enclosure.



#### SKINTOP® CUBE

SKINTOP<sup>®</sup> CUBE utilizes patented flexible clip modules for quick multi-cable bushing and sealing. Removing the frame is not necessary when replacing cables.



## **SKINTOP® CUBE Benefits**

- Faster and easier assembling and disassembling than other multi-cable bushing systems
- Cable diameters from 4-16 mm can be accommodated by just four modules, greatly reducing inventory
- Securely fixed SKINTOP<sup>®</sup> CUBE modules can be assembled with the cable before installation in the frame
- Materials are oil, grease, UV, and ozone resistant
- Frame accommodates up to 10 cables and fits within standard 16- and 24-pole industrial connector entry holes



#### SKINTOP® CUBE Frame

- Sturdy glass fiber-reinforced polyamide
- 16 or 24 pole connector installation openings\*
- Used with both CUBE and CUBE MULTI inserts:
  - holds 8-10 cables with CUBE modules
  - holds up to 23 cables with CUBE MULTI inserts

\* SKINTOP<sup>®</sup> MULTI fits into 24-pole frame only.

The flexible polyamide clip modules have a specially designed, patented sealing system, consisting of two identical sections that can easily be fitted onto the cable without any special tools, lubricants, or sealants. The clip sealing modules offer an outstanding variable clamping range, ensuring optimum protection of the cable at all times.



SKINTOP<sup>®</sup> CUBE modules can be removed from the frame by hand just as easily as they are installed because the frame remains on the housing. Another major advantage of the SKINTOP<sup>®</sup> CUBE system is that the modules can be attached to the cable during assembly and delivered to production already prepared for quick installation, saving a tremendous amount of time and money.

#### **SKINTOP® CUBE Modules**

- Modules are available in sizes:
  - 4 to 6 mm 6 to 9 mm
  - 9 to 12 mm
  - blind modules
- Since the modules are perfectly square with sealing rings on all sides, the direction of the module does not matter when being secured to the frame. Other similar systems can only be installed in one position

- 12 to 16 mm



### Easy assembly and disassembly

The split modules can be inserted into the frame in any direction. There is no need to remove the frame from the enclosure during cable maintenance. No special tools, sealants, or lubricants are required.

#### Installation and repair savings

Modules can be pre-assembled with cables, eliminating preparation at installation. It is possible to remove one module at a time from the frame without disrupting the other modules or disassembling the frame.

# Excellent strain relief and sealing protection

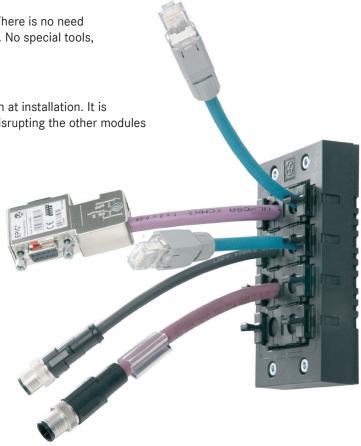
Flexible modules with sealing on all four sides provide secure locked protection with an IP64 seal.

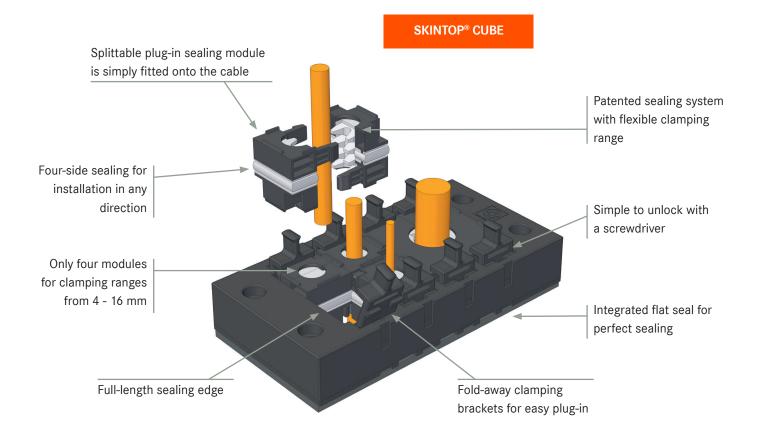
#### **Reduced parts inventory**

Two frames and four module options with patented sealing system accommodate up to ten cables with ODs ranging from 4 to 16 mm.

## **Durable industrial cable protection**

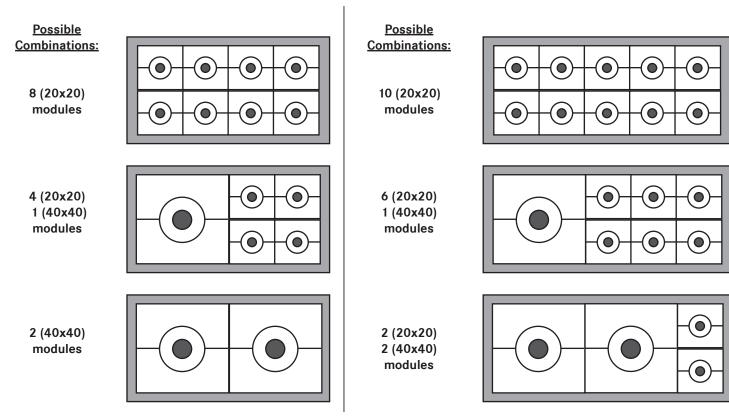
System is resistant to oil, grease, UV rays, and ozone.





# SKINTOP® CUBE 16 Frame Module

# SKINTOP® CUBE 24 Frame Module

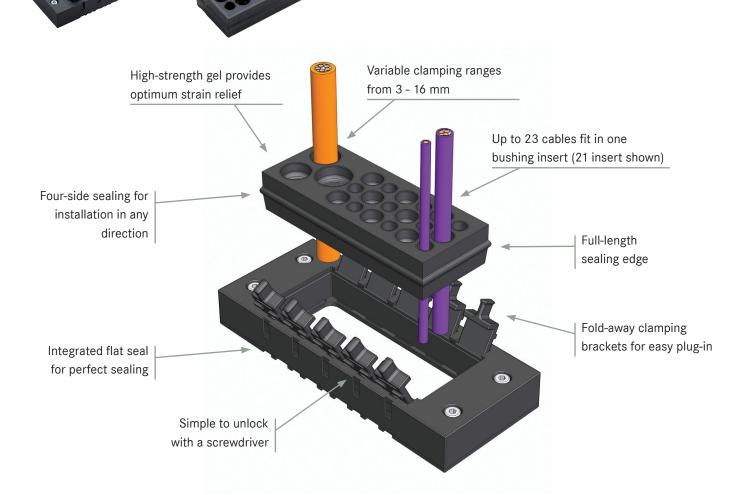


#### SKINTOP® CUBE MULTI

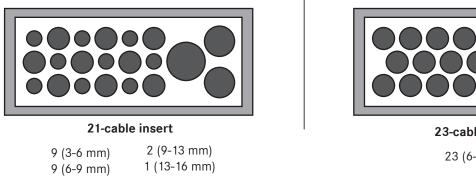
The SKINTOP<sup>®</sup> CUBE MULTI incorporates high-strength gel to seal many cables of variable clamping ranges. The gel provides ideal sealing and strain relief and maximum packing density.

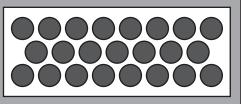
### **SKINTOP® CUBE MULTI Benefits**

- Easy installation and simplified cable removal
- Large variable clamping ranges with high packing density
- Optimum strain relief due to high-strength gel
- Materials are oil, grease, UV, and ozone resistant
- Frame accommodates up to 23 cables and fits within standard 24-pole industrial connector entry holes



## SKINTOP® CUBE 24 Frame Module





23-cable insert 23 (6-9 mm)



# SKINTOP® CUBE: Innovative Multi-Cable Bushing System

Part Number	Size	øl Clamping (in)		Max. Number of Inserts	Standard Pack Size
Frame					
52220000	16 Panel Cut-out (36 x 86 mm)	-	-	8	1
52220001	24 Panel Cut-out (36 x 112 mm)	-	-	10	1
Module					
52220004	20x20 Blank Module	0.039 - 0.118	1 - 3	—	5
52220002	20x20 Small Module	0.157 - 0.236	4 - 6	_	5
52220003	20x20 Large Module	0.236 - 0.354	6 - 9	-	5
52220040	20x20 AS-i Module	ASi bus cable	ASi bus cable	_	5
52220005	40x40 Small Module	0.354 - 0.472	9 - 12	-	5
52220006	40x40 Large Module	0.472 - 0.630	12 - 16	_	5
52220007	40x40 Blank Module	-	-	_	5

Technical Data				
Material:		🕂 Temperature Range:	-20°C to +80°C	
- Frame:	Glass fiber reinforced polyamide			
- Frame seal:	CR	RAL Color:	Black	
- Clip module:	Special polypropylene			
- Clip module seal:	LSE 2	IP Protection:	IP64	



# SKINTOP® CUBE MULTI: High-Density Cable Gel Bushing System

Part Number	Size	Size Number of Cables x Cable Diameter (in) (mm)		Max. Number of Cables
Frame				
52220001	24 Panel Cut-out (36 x 112 mm)	_	-	23
Insert				
52220050	21-cable insert	9 x 0.118 - 0.236 9 x 0.236 - 0.354 2 x 0.354 - 0.512 1 x 0.512 - 0.630	9 x 3 - 6 9 x 6 - 9 2 x 9 - 13 1 x 13 - 16	21
52220053	23-cable insert	23 x 0.236 - 0.354	23 x 6 - 9	23
Insert & Frame				
52220056	21-cable insert and frame	9 x 0.118 - 0.236 9 x 0.236 - 0.354 2 x 0.354 - 0.512 1 x 0.512 - 0.630	9 x 3 - 6 9 x 6 - 9 2 x 9 - 13 1 x 13 - 16	21
52220057	23-cable insert and frame	23 x 0.236 - 0.354	23 x 6 - 9	23

Technical Data					
Material:		👎 Temperature Range:	-30°C to +100°C		
- Frame:	Glass fiber reinforced polyamide				
- Frame seal:	Chloroprene rubber	RAL Color:	Black		
- Hard component:	Polycarbonate				
- Soft component:	Gel	IP Protection:	IP65		



# Accessories



EPIC<sup>®</sup> rectangular hole punches provide a quick, accurate means of cutting clearance holes for mounting SKINTOP<sup>®</sup> CUBE multi-cable bushing systems without sawing or filing. The dies include four drill guide holes for the base's screw mounting holes. Centering alignment marks are also included for easy squaring of the die with the panel cabinet. The unique 2-piece die configuration simplifies scrap slug removal.

The EPIC<sup>®</sup> hole punches can be used with mild steel up to 14 GA (2.0 mm) thickness or aluminum up to 10 GA (2.54 mm). These punches are intended for manual use with a ratchet or other suitable wrench or with a hand- or foot-operated hydraulic driver and ram using a 34" draw stud.

3/4" x 7" Draw Stud Set



Part Number 61U00197 Set includes: draw stud, drive nut, counter nut, ball bearing, and spacer

#### Punch & Die Sets





Size	Part Number	Max. Panel Thickness	
HB 16	61U00201	Mild Steel: 14 GA (2.0 mm Aluminum: 10 GA (2.54 mm	
HB 24	61U00203		

#### <sup>3</sup>/<sub>4</sub>" x 7" Draw Stud



For Manual Operation:

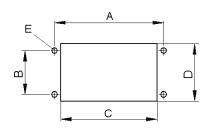
Order the Draw Stud Set & required size Punch & Die Set

#### For Hydraulic Operation:

Order the required size Punch & Die Set and if needed, the  $\ensuremath{^{3\!4}}\xspace$  Draw Stud

# **Panel Cut-out Sizes**

	Α	В	С	D	E
16 modules	4.055 in	1.260 in	3.366 in	1.378 in	0.169 in
	(103 mm)	(32 mm)	(85.5 mm)	(35 mm)	(4.3 mm)
24 modules	5.118 in	1.260 in	4.417 in	1.378 in	0.169 in
	(130 mm)	(32 mm)	(112.2 mm)	(35 mm)	(4.3 mm)









For more information or to connect with your local Lapp Group representative please call 800-774-3539 or visit **lappgroupna.com**  **FLEXIMARK**®

**SILVYN**<sup>®</sup>

**HITRONIC®** 

**ETHERLINE**®

**SKINTOP**<sup>®</sup>

**EPIC**<sup>®</sup>

**UNITRONIC**®

ÖLFLEX®