



Cable entry- and cable retaining systems





CABLE ENTRY SYSTEM FOR CABLES WITH CONNECTORS

The cable entry system is designed for inserting pre-assembled cables and electrical conduits in divider walls, junction boxes, control cabinets...

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CABLE ENTRY SYSTEM FOR CABLES WITHOUT CONNECTORS

The cable entry plate is a routing and fastening system for cables without connectors or pneumatic hoses.

from page 907



EMC SOLUTIONS

The EMC systems are used to dissipate electromagnetic interference and conducted fault currents.

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STRAIN RELIEF / CABLE FIXING PLATE

The strain relief plate is used wherever the strain on cables, single wires or conduits must be securely and easily relieved. Cable fixing plates are clipped onto top-hat rails or C-rails without tools.

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"M-SEAL" CABLE FITTINGS

"m-seal" cable fittings, made of plastic or metal, are able to meet highest demands and can be mounted quickly and easily.

from page 1007



ACCESSORIES / TOOLS AND PUNCHING TOOLS

Adapter plates, blanking panels, catch hooks and much more. Tools for electrical installation, as well as for creating exact cut-outs in steel and stainless steel sheets.

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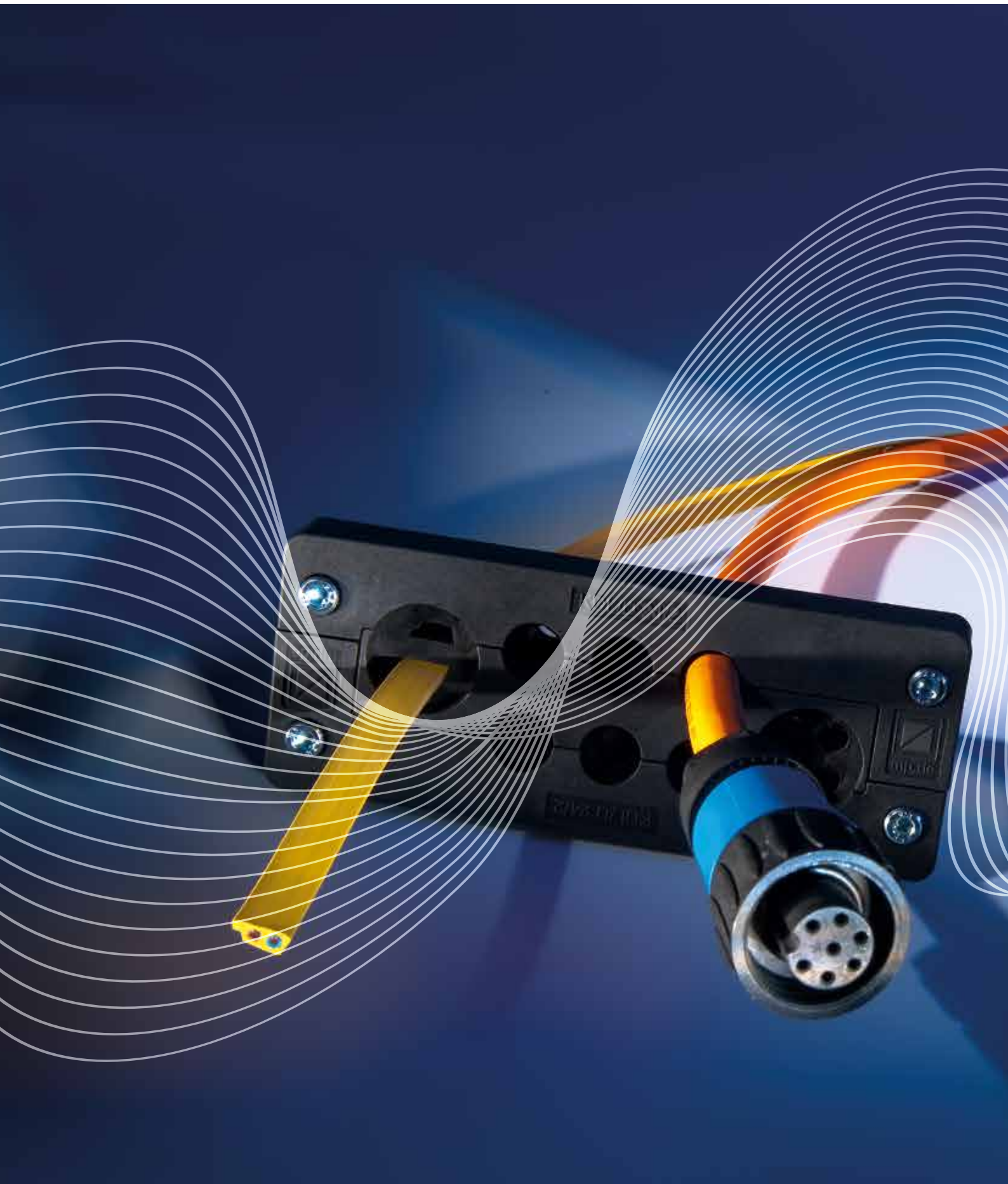
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Overview selection tables

THE MOST IMPORTANT MURRPLASTIK CABLE ENTRY SYSTEMS IN THE OVERVIEW

Which cable entry system would best meet your requirements? How many openings for cables with or without connectors are available on the system? What are the available forms and materials?

Get an overview of our systems and the corresponding accessories.



Cable entry system Type KDL/C and KDL/D

Cable entry systems for cables with connectors. The KDL/D is built with a massive frame for increased stability.

from page 830



KDP cable entry plate, plastic, round

Types KDPR/F, KDP/R and KDP/R-KGM for cables without connectors. For standard M40, M50 and M63 cut-outs.

from page 862



KDL/H cable entry system

Die-cast zinc cable entry systems for cables with connectors. For the highest degree of stability and tightness up to IP 69K.

from page 844



Cable entry plate Type KDP, metal, cablequick®

Cable entry for cables without connectors, made of V4A stainless steel, sheet metal or aluminum.

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KDL/E cable entry system

Cable entry plates for cables with conductors fitting cut-out sizes 16- and 24-pin.

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Cable entry membranes Type KDM

For cables without connectors and for pneumatic tubing. Fits standard cut-outs of M12 to M50.

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KDL-Jumbo cable entry system

Splittable cable entry plates for cables with diameters of 30 – 65 mm (1.18 – 2.56 in).

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Cable entry plate for railway technology

The types KDP/EN and KDP/EN-RA meet the requirements of the EN 45545-2:2013 standards for railway technology.

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KDP cable entry plate, plastic, rectangular

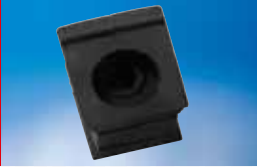
Types KDP/X, KDP/N, KDP/E, KDP/F and KDP 24-Multi for cables without connectors. Greatest diversity in variants and applications.

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Overview grommets for cable entry systems

POSSIBLE COMBINATIONS OF VARIOUS GROMMETS AND CABLE ENTRY SYSTEMS

The most varied combinations of cables and conduits can be installed in our cable entry systems using various grommets. This is an overview of the available grommet types and suitable cable entry systems.

	 KDL/E	 KDL/C	 KDL/D	 KDL/H	 KDL-Jumbo
Cable grommet	Grommets with diameters of between 3 and 65 mm (0.12 and 2.56 in) for round cables				
	KDT/ZE small	KDT/X small			KDT/Z jumbo
		KDT/X medium			
	KDT/ZE large	KDT/X large			
Variable cable grommet	Grommets with variable diameter for round cables				
	KDT/VE small				
ASI-/USB-/LAN grommet	Special grommets				
	KDT/ZE ASI small	KDT/X ASI medium			
	KDT/ZE 2xASI	KDT/X 2xASI medium			
		KDT/X-USB medium			
		KDT/X-LAN large			
Multi-line grommet	High-capacity grommets with several openings				
	KDT/ZE 2x/4xsmall	KDT/X 2x0.08 in. 2x0.12 in. 2x0.16 in. small			(2 mm / 3 mm / 4 mm)
		KDT/X 4x0.08 in. 4x0.12 in. 4x0.16 in. small			(2 mm / 3 mm / 4 mm)
		KDT/X 2x0.20 in. 2x0.24 in. 2x0.28 in. 2x0.31 in. medium			(6 mm / 7 mm / 8 mm)
		KDT/X 4x0.20 in. 4x0.24 in. 4x0.28 in. 4x0.31 in. medium			(6 mm / 7 mm / 8 mm)
Conduit grommet	Grommets for the feed-through of cable protection conduits				
	SDT/ZE small				
	SDT/ZE large				
Dummy grommet	Grommets for closing off unused slots				
	BTK/E small	BTK/X small			BT-Jumbo
	BTG/E large	BTG/X medium			
		BTG/XL large			



Selection table KDL/C and KDL/D 24/xx for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

KDL/C 24 and KDL/D 24 cable entry systems have the identical grommet block, equipped with large, medium and small grommets for a variety of uses. The three-compartment frame clearly gives the KDL/D the better mechanical stability and a higher degree of tightness.

X Number of grommets X Suitable grommets	A Small grommets 0.08 – 0.47 inch	B Medium grommets 0.47 – 0.87 inch	C Large grommets 0.87 – 1.18 inch
 KDL/D 24/3 KDL/D: 87141013		Number of grommets: 1 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	Number of grommets: 2 KDT/X cable grommet BTG/XL dummy grommet ATG/XL adapter grommet
 KDL/C/D 24/4 KDL/C: 87141016 / KDL/D: 87141014		Number of grommets: 4 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
 KDL/C/D 24/8 KDL/C: 87141020 / KDL/D: 87141018	Number of grommets: 6 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet	Number of grommets: 2 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
 KDL/C/D 24/9 KDL/C: 87141024 / KDL/D: 87141022	Number of grommets: 8 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet	Number of grommets: 1 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
 KDL/C/D 24/12 KDL/C: 87141012 / KDL/D: 87141010	Number of grommets: 12 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		

Available grommets for all variants of KDL/C, KDL/D and KDL/H

A
Small grommets
B
Medium grommets
C
Large grommets


KDT/X



KDT/X



KDT/X

CABLE GROMMET FOR ROUND CABLES

For example, the KDT/X cable entry grommets are perfect for cable entries or feed-through of round, pre-assembled cables at control cabinets. The small version covers cable diameters of between 0.08 – 0.47 inch (2 to 12 mm), the medium covers between 0.47 – 0.87 inch (12 to 22 mm) and the large covers between 0.87 – 1.18 inch (22 to 30 mm). The lengthwise slotted grommet, made of thermoplastic natural rubber is placed around the cable and pushed into the grommet block.



KDT/X 2x/4x



KDT/X 2x/4x

MULTI-LINE CABLE ENTRY GROMMET

The KDT/X 2x/4x multi-line cable entry grommet in their small version (for slots of type **A**) and in the medium version (for slots of type **B**) facilitate cable entry for two or four round pre-assembled cables without problem, e.g. entry into or feed-through at a control cabinet. The grommet is made of thermoplastic rubber.



BTK/X



BTG/X



BTG/XL

DUMMY GROMMET

With the BTK/X dummy grommets (for slots Type **A**), BTG/X (for slots Type **B**) and BTG/XL (for slots Type **C**) unused openings can be tightly sealed.



KDT/X ASI

ASI CABLE BUSHING

The KDT/X ASI medium ASI cable bushing (for slots of Type **B**) can easily accommodate ASI bus cables, e.g. entry into or feed-through at control cabinets. One or two-cables per grommet versions are available. The grommet is made of thermoplastic rubber.



KDT/X-USB



KDT/X-LAN

USB / LAN CABLE GROMMET

The USB cable grommet KDT/X-USB (for slots of Type **B**) facilitates the routing of KDL/C or KDL/D. There are two versions available, including 3.28 ft (1 m) or 9.84 ft (3 m) USB cables. The LAN cable grommet KDT/X-LAN (for slots Type **C**) facilitates the routing of KDL/C oder KDL/D. Both grommets are made of thermoplastic rubber.



ATG/X



ATG/XL

ADAPTER GROMMET

The ATG/X adapter grommet (for slots of Type **B**) facilitates the installation of a small grommet into a slot for medium grommets. The ATG/XL adapter grommet (for slots of Type **C**) facilitates the installation of a medium grommet into a slot for large grommets.



Selection table KDL/C and KDL/D 16/x for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

KDL/C 16 and KDL/D 16 cable entry systems have the identical grommet block, equipped with large, medium and small grommets for a variety of uses. The three-compartment frame clearly gives the KDL/D the better mechanical stability and a higher degree of tightness.

X Number of grommets X Suitable grommets	A Small grommets 0.08 – 0.47 inch B Medium grommets 0.47 – 0.87 inch C Large grommets 0.87 – 1.18 inch		
KDL/D 16/2 KDL/D: 87141033			Number of grommets: 2 KDT/X cable grommet BTG/XL dummy grommet ATG/XL adapter grommet
KDL/C/D 16/3 KDL/C: 87141036 / KDL/D: 87141034		Number of grommets: 3 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
KDL/C/D 16/7 KDL/C: 87141032 / KDL/D: 87141030	Number of grommets: 6 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet	Number of grommets: 1 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
KDL/C/D 16/8 KDL/C: 87141028 / KDL/D: 87141026	Number of grommets: 8 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		

Selection table KDL/C and KDL/D 10/x for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

KDL/C 10 and KDL/D 10 cable entry systems have the identical grommet block, equipped with medium and small grommets for a variety of uses. The three-compartment frame clearly gives the KDL/D the better mechanical stability and a higher degree of tightness.

X Number of grommets
X Suitable grommets

A Small grommets 0.08 – 0.47 inch

B Medium grommets 0.47 – 0.87 in.



Number of grommets: 2
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTG/X dummy grommet
KDT/X ASI, ASI cable bushing
KDT/X USB USB cable grommet
ATG/X adapter grommet



Number of grommets: 4
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTK/X dummy grommet

Number of grommets: 1
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTG/X dummy grommet
KDT/X ASI, ASI cable bushing
KDT/X USB USB cable grommet
ATG/X adapter grommet



Number of grommets: 6
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTK/X dummy grommet



KDL/C: Two-piece frame plus grommet block



KDL/D: Three-piece frame plus grommet block



Selection table KDL/C and KDL/D 6/x, 1/x and KDL/D-R M50/x

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

KDL/C 6 and KDL/D 6 cable entry systems have the identical grommet block, that can be equipped with small grommets for a variety of uses. The three-compartment frame clearly gives the KDL/D the better mechanical stability and a higher degree of tightness. The KDL/D-R M50/4 is designed for installation into 1.97 in (50 mm) Ø circular cut-outs.

X Number of grommets
X Suitable grommets

A Small grommets 0.08 – 0.47 inch

B Medium grommets 0.47 – 0.87 in.



Number of grommets: 4
 KDT/X cable grommet
 KDT/X 2x/4x multi-line grommet
 BTK/X dummy grommet



Number of grommets: 6
 KDT/X cable grommet
 KDT/X 2x/4x multi-line grommet
 BTK/X dummy grommet



Number of grommets: 4
 KDT/X cable grommet
 KDT/X 2x/4x multi-line grommet
 BTK/X dummy grommet



KDL/D 6/4: Three-piece frame, grommet block and grommets



KDL/D 6/4 and KDL/D 1/6 (grommet block) and their applications





Selection table KDL/H 24/x for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

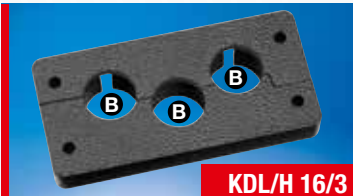
The KDL/H is manufactured in a zinc die-cast process or made of milled aluminium and enables the insertion, sealing and strain relief of pre-assembled cables and conduits, for example in control cabinets and terminal boxes. The KDL/H can be equipped with large, medium and small grommets for a wide variety of applications. Multi-line cable entry grommets increase the capacity. It distinguishes itself through its especially strong construction and high degree of tightness, all the way to IP 69K.

X Number of grommets X Suitable grommets	A Small grommets 0.08 – 0.47 inch	B Medium grommets 0.47 – 0.87 inch	C Large grommets 0.87 – 1.18 inch
 KDL/H 24/3 Order no.: 87141414		Number of grommets: 1 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	Number of grommets: 2 KDT/X cable grommet BTG/XL dummy grommet ATG/XL adapter grommet
 KDL/H 24/4 Order no.: 87141412		Number of grommets: 4 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
 KDL/H 24/12 Order no.: 87141410	Number of grommets: 12 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		
 KDL/H 24/12 in application			

Selection table KDL/H 16/x and special sizes for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The KDL/H is manufactured in a zinc die-cast process or made of milled aluminium and enables the insertion, sealing and strain relief of pre-assembled cables and conduits, for example in control cabinets and terminal boxes. The KDL/H can be equipped with large, medium and small grommets for a wide variety of applications.. Multi-line cable entry grommets increase the capacity. It distinguishes itself through its especially strong construction and high degree of tightness, all the way to IP 69K.

X Number of grommets X Suitable grommets	A Small grommets 0.08 – 0.47 inch	B Medium grommets 0.47 – 0.87 inch	C Large grommets 0.87 – 1.18 inch
 KDL/H 16/2 Order no.: 87141420			Number of grommets: 2 KDT/X cable grommet BTG/XL dummy grommet ATG/XL adapter grommet
 KDL/H 16/3 Order no.: 87141416		Number of grommets: 3 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTG/X dummy grommet KDT/X ASI, ASI cable bushing KDT/X USB USB cable grommet ATG/X adapter grommet	
 KDL/H 16/8 Order no.: 87141418	Number of grommets: 8 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		
 KDL/H 1/6 Order no.: 87141422	Number of grommets: 6 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		
 KDL/H M50/4 Order no.: 87141424	Number of grommets: 4 KDT/X cable grommet KDT/X 2 x / 4 x multi-line grommet BTK/X dummy grommet		

Selection table KDL/E 16/x for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The frames of the cable entry system KDL/E 16 can be equipped with large and/or small grommets.

Small grommets (marked with **A** in the picture) can be used for the installation of cables with diameters of 0.12 to 0.63 in (3 – 16 mm).

Large grommets (marked with **B** in the picture) can be used for the installation of cables with diameters of 0.63 to 1.22 in (16 – 31 mm).

- X** Number of grommets
- X** Suitable grommets



A Small grommets 0.12–0.63 in



B Large grommets 0.63–1.22 in



Number of grommets: 2

KDT/ZE cable grommet
SDT/ZE conduit grommet
ATG/E adapter grommet
BTG/E dummy grommet



Number of grommets: 4

KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE ASI, ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Number of grommets: 0



Number of grommets: 4

KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE ASI, ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Number of grommets: 1

KDT/ZE cable grommet
SDT/ZE conduit grommet
ATG/E adapter grommet
BTG/E dummy grommet



Number of grommets: 8

KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE ASI, ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Available grommets for KDL/E 16/x

A
Small grommets
B
Large grommets


KDT/ZE



KDT/ZE

CABLE GROMMET FOR ROUND CABLES

For example, the KDT/ZE cable entry grommets are perfect for cable entries or feed-through of round, pre-assembled cables at control cabinets. The small design covers cable diameters of between 0.12 to 0.63 in (3 to 16 mm), the large design is for 0.63 to 1.22 in (16 to 31 mm) versions.

The grommet, made of thermoplastic rubber is 2-pce. and is positioned around the cable. Strain relief can be achieved by installing cable ties.



KDT/VE

VARIABLE CABLE GROMMET (PROTECTION CLASS IP 42)

The KDT/VE small type, variable cable grommet (for slots of Type **A**) can easily accommodate round, pre-configured cables, e.g. for entry into or feed-through at control cabinets. Two different diameter ranges can be serviced:

Cable diameters from 0.12 to 0.28 in (3 to 7 mm) and from 0.28 to 0.39 in (7 to 10 mm).

The grommet, made of thermoplastic rubber is slotted and is positioned around the cables.



KDT/ZE ASI

ASI CABLE BUSHING

The KDT/ZE ASI small ASI cable bushing (for slots of Type **A**) can easily accommodate ASI bus cables, e.g. for entry into or feed-through at control cabinets.

One or two-cables per grommet versions are available.

The grommet, made of thermoplastic rubber, is 2-pce. and will be positioned around the cable. Strain relief can be achieved by installing cable ties.



KDT/ZE 2 x / 4 x

MULTI-LINE CABLE ENTRY GROMMET

The KDT/ZE 2 x / 4 x multi-line cable entry grommets in their small version (for slots of Type **A**) facilitate easy cable entry for several round, pre-assembled cables, e.g. entry into or feed-through at a control cabinet. Two- or four-cables per grommet versions are available.

The grommet, made of thermoplastic rubber is either slotted, or 2-pce. and will be positioned around the cable. Strain relief can be achieved by installing cable ties.



SDT/ZE



SDT/ZE

CONDUIT GROMMET FOR MURRFLEX CABLE PROTECTION CONDUITS

For example, the SDT/ZE conduit grommets are perfect for Murrplastik cable protection conduit infeed or feed-through at control cabinets. The smaller versions accommodate tube sizes M10/ P7 to M16/ P11, the large versions are for M20/ P16 and M25/ P21.

The grommet, made of thermoplastic rubber is 2-pce. and will be positioned around the conduits. Strain relief can be achieved by installing cable ties.


BTK/E **A** BTG/E **B**

DUMMY GROMMET

With the BTK/E dummy grommets (for slots of Type **A**) and BTG/E (for slots of Type **B**) unused openings can be tightly sealed.


ATG/E **B**

ADAPTER GROMMET

The ATG/E adapter grommet (for slots of Type **B**) facilitates the installation of a small grommet into a slot for large grommets.

Selection table KDL/E 24/xx for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The frames of the cable entry system KDL/E 24 can be equipped with large and/or small grommets.

Small grommets (marked with **A** in the picture) can be used for the installation of cables with diameters of 0.12 to 0.63 in (3 – 16 mm).

Large grommets (marked with **B** in the picture) can be used for the installation of cables with diameters of 0.63 to 1.22 in (16 – 31 mm).

- X** Number of grommets
- X** Suitable grommets

A Small grommets 0.12 – 0.63 in

B Large grommets 0.63 – 1.22 in



Number of grommets: 2
KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE 2 x ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Number of grommets: 2
KDT/ZE cable grommet
SDT/ZE conduit grommet
ATG/E adapter grommet
BTG/E dummy grommet



Number of grommets: 6
KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE 2 x ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Number of grommets: 1
KDT/ZE cable grommet
SDT/ZE conduit grommet
ATG/E adapter grommet
BTG/E dummy grommet



Number of grommets: 10
KDT/ZE cable grommet
KDT/VE cable vario grommet
KDT/ZE 2 x ASI cable bushing
KDT/X 2x/4x multi-line grommet
SDT/ZE conduit grommet
BTK/E dummy grommet

Number of grommets: 0



KDL/E 24 for cables with connectors in applications

Available grommets for KDL/E 24/xx

A
Small grommets
B
Large grommets


KDT/ZE



KDT/ZE

CABLE GROMMET FOR ROUND CABLES

For example, the KDT/ZE cable entry grommets are perfect for cable entries or feed-through of round, pre-assembled cables at control cabinets. The small design covers cable diameters of between 0.12 to 0.63 in (3 to 16 mm), the large design is for 0.63 to 1.22 in (16 to 31 mm) versions.

The grommet, made of thermoplastic rubber is 2-pce. and is positioned around the cable. Strain relief can be achieved by installing cable ties.



KDT/VE

VARIABLE CABLE GROMMET (PROTECTION CLASS IP 42)

The KDT/VE small type, variable cable grommet (for slots of Type **A**) can easily accommodate round, pre-configured cables, e.g. for entry into or feed-through at control cabinets. Two different diameter ranges can be serviced:

Cable diameters from 0.12 to 0.28 in (3 to 7 mm) and from 0.28 to 0.39 in (7 to 10 mm).

The grommet, made of thermoplastic rubber is slotted and is positioned around the cables.



KDT/ZE ASI

ASI CABLE BUSHING

The KDT/ZE ASI small ASI cable bushing (for slots of Type **A**) can easily accommodate ASI bus cables, e.g. for entry into or feed-through at control cabinets.

One or two-cables per grommet versions are available.

The grommet, made of thermoplastic rubber, is 2-pce. and will be positioned around the cable. Strain relief can be achieved by installing cable ties.



KDT/ZE 2 x / 4 x

MULTI-LINE CABLE ENTRY GROMMET

The KDT/ZE 2 x / 4 x multi-line cable entry grommets in their small version (for slots of Type **A**) facilitate easy cable entry for several round, pre-assembled cables, e.g. entry into or feed-through at a control cabinet. Two- or four-cables per grommet versions are available.

The grommet, made of thermoplastic rubber is either slotted, or 2-pce. and will be positioned around the line. Strain relief can be achieved by installing cable ties.



SDT/ZE



SDT/ZE

CONDUIT GROMMET FOR MURRFLEX CABLE PROTECTION CONDUITS

For example, the SDT/ZE conduit grommets are perfect for Murrplastik cable protection conduit infeed or feed-through at control cabinets. The smaller versions accommodate tube sizes M10/ P7 to M16/P11, the large versions are for M20/P16 and M25/P21.

The grommet, made of thermoplastic rubber is 2-pce. and will be positioned around the conduits. Strain relief can be achieved by installing cable ties.


BTK/E **A** BTG/E **B**

DUMMY GROMMET

With the BTK/E dummy grommets (for slots of Type **A**) and BTG/E (for slots of Type **B**) unused openings can be tightly sealed.


ATG/E **B**

ADAPTER GROMMET

The ATG/E adapter grommet (for slots of Type **B**) facilitates the installation of a small grommet into a slot for large grommets.



Selection table KDL-Jumbo for cables with plugs

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The KDL-Jumbo cable entry system is used for inserting pre-assembled cables. The KDL-Jumbo system is a fully split-table system that enables the quick and simple installation of 1 or 2 pre-assembled cables with a diameter of between 1.18 to 2.56 in (30 and 65 mm) in control cabinets and terminal boxes.

- X Number of grommets
- X Suitable grommets

A Splittable grommets for clamping range 1.18 to 2.56 in (30–65 mm).



Number of grommets: 1
KDT/Z-Jumbo cable grommet
BT-Jumbo dummy grommet



Number of grommets: 2
KDT/Z-Jumbo cable grommet
BT-Jumbo dummy grommet



KDL-Jumbo 1 and KDL-Jumbo 2 and their applications

Available grommets for KDL-Jumbo

A

Jumbo grommets



CABLE GROMMET FOR ROUND CABLES

For example, the KDT/Z-Jumbo cable entry grommets are perfect for cable entries or feed-through of round, pre-assembled cables with large cable diameters at control cabinets.

Cable diameters of 1.18 to 2.56 in (30–65 mm) are accommodated in 0,20 in (5 mm) increments.

The grommet, made of thermoplastic rubber is 2-pce. and is positioned around the cable.

Strain relief can be achieved by installing cable ties.



DUMMY GROMMET

The BT-Jumbo dummy grommets (for slots of Type **A**) facilitate the tight sealing of unused openings.



Selection table KDP/N 24 for cables without plugs

		0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79			
 KDP/N 24/10 Order no.: 87301108	X																										
					2	0.12 – 0.26 in (3.0 – 6.5 mm)				1	0.20 – 0.36 in (5.0 – 9.2 mm)				5	0.35 – 0.55 in						9 – 14 mm	2	0.55 – 0.79 in		14 – 20 mm	
 KDP/N 24/11 Order no.: 87301110	X																										
					4	0.12 – 0.26 in (3.0 – 6.5 mm)				4	0.20 – 0.36 in (5.0 – 9.2 mm)											3	0.55 – 0.79 in		14 – 20 mm		
 KDP/N 24/12 Order no.: 87301120	X																										
															12	0.31 – 0.47 in		8 – 12 mm									
 KDP/N 24/13 Order no.: 87301130	X																										
					2	0.12 – 0.22 in				3.0 – 5.5 mm				6	0.16 – 0.32 in (4.1 – 8.1 mm)				4	0.35 – 0.55 in				9 – 14 mm	1	0.55 – 0.79 in	
 KDP/N 24/14 Order no.: 87301140	X																										
					6	0.12 – 0.26 in (3.0 – 6.5 mm)				4	0.20 – 0.36 in (5.0 – 9.2 mm)				4	0.38 – 0.63 in (9.6 – 15.9 mm)											
 KDP/N 24/17 Order no.: 87301150	X																										
										17	0.20 – 0.36 in (5.0 – 9.2 mm)																

Selection table KDP/N 24 for cables without plugs

X Number of openings
X Clamping area in inch

	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79
 KDP/N 24/17-1 Order no.: 87301151				11	0.12 – 0.26 in (3.0 – 6.5 mm)		1	0.16 – 0.32 in (4.1 – 8.1 mm)				5	0.31 – 0.49 in		8.0 – 12.5 mm								
 KDP/N 24/22 Order no.: 87301160				16	0.12 – 0.26 in (3.0 – 6.5 mm)		4	0.20 – 0.36 in (5.0 – 9.2 mm)				2	0.31 – 0.49 in		8.0 – 12.5 mm								
 KDP/N 24/23 Order no.: 87301170							23	0.16 – 0.32 in (4.1 – 8.1 mm)															
 KDP/N 24/29 Order no.: 87301180				29	0.12 – 0.26 in (3.0 – 6.5 mm)																		
 KDP/N 24/80 Order no.: 87301190	1.5–2.6	78	0.06 – 0.10 in (1.5–2.6 mm)		2	0.10 – 0.20 in		2.5 – 5.0 mm															

Selection table KDP/X 24 for cables without plugs

		0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87
 KDP/X 24/10 Order no.: 87301305																								
 KDP/X 24/11 Order no.: 87301315																								
 KDP/X 24/12 Order no.: 87301325																								
 KDP/X 24/13 Order no.: 87301335																								
 KDP/X 24/14 Order no.: 87301345																								
 KDP/X 24/17 Order no.: 87301355																								

Selection table KDP/X 24 for cables without plugs

X Number of openings
X Clamping area in inch

	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87
 KDP/X 24/17-1 Order no.: 87301356			11	0.12 – 0.26 in (3.0 – 6.5 mm)		1	0.16 – 0.32 in (4.1 – 8.1 mm)				5	0.31 – 0.49 in	8.0 – 12.5 mm										
 KDP/X 24/22 Order no.: 87301365			16	0.12 – 0.26 in (3.0 – 6.5 mm)		4	0.20 – 0.36 in (5.0 – 9.2 mm)				2	0.31 – 0.49 in	8.0 – 12.5 mm										
 KDP/X 24/23 Order no.: 87301375					23	0.16 – 0.32 in (4.1 – 8.1 mm)																	
 KDP/X 24/29 Order no.: 87301385			29	0.12 – 0.26 in (3.0 – 6.5 mm)																			



Selection table KDP/E 24 for cables without plugs

		0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87	
X Number of openings X Clamping area in inch	 KDP/E 24/11 Order no.: 87301310			4	0.12 – 0.26 in (3.0 – 6.5 mm)				4	0.20 – 0.36 in (5.0 – 9.2 mm)									3	0.55 – 0.79 in 14 – 20 mm					
	 KDP/E 24/12 Order no.: 87301320												12	0.31 – 0.47 in				8 – 12 mm							
	 KDP/E 24/13 Order no.: 87301330			2	0.12 – 0.22 in		3.0 – 5.5 mm		6	0.16 – 0.32 in (4.1 – 8.1 mm)				4	0.35 – 0.55 in				9 – 14 mm		1	0.55 – 0.79 in 14 – 20 mm			
	 KDP/E 24/14 Order no.: 87301340			6	0.12 – 0.26 in (3.0 – 6.5 mm)				4	0.20 – 0.36 in (5.0 – 9.2 mm)				4	0.38 – 0.63 in (9.6 – 15.9 mm)										
	 KDP/E 24/17 Order no.: 87301350												17	0.20 – 0.36 in (5.0 – 9.2 mm)											
	 KDP/E 24/17-1 Order no.: 87301351			11	0.12 – 0.26 in (3.0 – 6.5 mm)				1	0.16 – 0.32 in (4.1 – 8.1 mm)				5	0.31 – 0.49 in				8.0 – 12.5 mm						

Selection table KDP/E 24 for cables without plugs

- X Number of openings
X Clamping area in inch

	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87
 KDP/E 24/22 Order no.: 87301360			16	0.12 – 0.26 in (3.0 – 6.5 mm)				4	0.20 – 0.36 in (5.0 – 9.2 mm)				2	0.31 – 0.49 in		8.0 – 12.5 mm							
 KDP/E 24/23 Order no.: 87301370					23	0.16 – 0.32 in (4.1 – 8.1 mm)																	
 KDP/E 24/29 Order no.: 87301380			29	0.12 – 0.26 in (3.0 – 6.5 mm)																			

Selection table KDP 24/xx/02 for cables without plugs

- X** Number of openings
X Clamping area in inch

	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.35	0.37	0.39	10.5	0.43	0.47	0.51
 KDP 24/10/02 Order no.: 87301076					4	0.12 – 0.26 in (3.0 – 6.5 mm)		2	0.18 – 0.33 in (4.5 – 8.5 mm)						4	0.31 – 0.49 in (8.0 – 12.5 mm)							
A = Slot for small cable entry grommet, see KDL/E 24																							
 KDP 24/14/02 Order no.: 87301078					4	0.10 – 0.20 in			2.5 – 5.0 mm														
					2	0.12 – 0.26 in (3.0 – 6.5 mm)		8	0.18 – 0.33 in (4.5 – 8.5 mm)														
A = Slot for small cable entry grommet, see KDL/E 24																							
 KDP 24/15/02 Order no.: 87301080					2	0.06 – 0.14 in			1.5 – 3.5 mm														
					11	0.12 – 0.26 in (3.0 – 6.5 mm)									2	0.31 – 0.49 in (8.0 – 12.5 mm)							
A = Slot for small cable entry grommet, see KDL/E 24																							
 KDP 24/17/02 Order no.: 87301082					17	0.12 – 0.26 in (3.0 – 6.5 mm)																	
A = Slot for small cable entry grommet, see KDL/E 24																							
 KDP 24/20/02 Order no.: 87301084					4	0.06 – 0.14 in			1.5 – 3.5 mm														
					6	0.12 – 0.20 in			3.0 – 5.0 mm														
					10	0.12 – 0.26 in (3.0 – 6.5 mm)																	
A = Slot for small cable entry grommet, see KDL/E 24																							
 KDP 24/21/02 Order no.: 87301086					21	0.10 – 0.20 in			2.5 – 5.0 mm														
A = Slot for small cable entry grommet, see KDL/E 24																							

Selection table KDP/F for cables without plugs

	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.24	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	1.18
 KDP/F 24-14 Order no.: 87302010																							
	6	0.35 in (9 mm) maximum																					
	4	0.43 in (11 mm) maximum																					
	4	0.71 in (18 mm) maximum																					
 KDP/F 24-22 Order no.: 87302020																							
	16	0.35 in (9 mm) maximum																					
	4	0.43 in (11 mm) maximum																					
	2	0.59 in (15 mm) maximum																					
 KDP/F 24-28 Order no.: 87302040																							
	28	0.35 in (9 mm) maximum																					
 KDP/F 24-46 Order no.: 87302050																							
	46	0.26 in (6.5 mm) maximum																					
 KDP/F 24-multi Order no.: 87302030																							
	4	rectangular openings, 1.06 x 1.18 (27 x 30 mm) maximum																					



Selection table KDP/Z for cables without plugs

X	Number of openings	X	Clamping area in inch	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.24	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	1.18	
	KDP/Z 24/14																										
	Order number: 87303010																										
	KDP/Z 24/14-1																										
	Order number: 87302020																										
	KDP/Z 24/23																										
	Order number: 87303030																										
	KDP/Z 24/30																										
	Order number: 87303040																										
	KDP/Z 24/48																										
	Order number: 87303050																										



Selection table KDP/R for cables without plugs

- X** Number of openings
X Clamping area in inch



0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.35	0.37	0.39	0.43	0.47	0.55	0.63
				19	0.12 – 0.20 in	3 – 5 mm																
				46	0.06 – 0.12 in	1.5 – 3.1 mm																

Selection table KDPR/F for cables without plugs

- X** Number of openings
X Clamping area in inch



0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.31	0.33	0.35	0.37	0.39	0.43	0.47	0.55	0.63
				2	semi-circular, maximum Ø for 13.5 mm (0.53 in) cables																	
				8	8.5 mm (0.33 in) maximum																	

Selection table cablequick® metal KDP 90 for cables without plugs

- X Number of openings
X Clamping area in inch



	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87	0.94	1.10
14	0.14 – 0.26 in (3.5 – 6.5 mm)																						
28		0.18 – 0.33 in (4.5 – 8.5 mm)																					
4									0.28 – 0.43 in					7 – 11 mm									
1													0.43 – 0.63 in						11 – 16 mm				
3	0.12 – 0.20 in																						
32		0.14 – 0.26 in (3.5 – 6.5 mm)																					
16			0.16 – 0.31 in (4 – 8 mm)																				
4									0.31 – 0.47 in					8 – 12 mm									



Selection table cablequick® metal KDP 100 for cables without plugs

	0.04	0.08	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.94	
 KDP 100/6: V4: 87663116 / ALU: upon request																				6	0.63 – 0.94 in 16 – 24 mm			
 KDP 100/15: V4A: 87663120 / ALU: upon request												3	0.31 – 0.47 in	8 – 12 mm		12	0.43 – 0.63 in					11 – 16 mm		
 KDP 100/18: V4A: 87663122 / ALU: upon request												18	0.31 – 0.47 in	8 – 12 mm										
 KDP 100/24: V4A: 87663124 / ALU: upon request												24	0.24 – 0.41 in	6.0 – 10.5 mm										
 KDP 100/30: V4A: 87663062 / ALU: upon request												12	0.14 – 0.26 in	3.5 – 6.5 mm		12	0.24 – 0.39 in (6 – 10 mm)		6	0.35 – 0.55 in	9 – 14 mm			
 KDP 100/30B V4A: 87663063 / ALU: upon request												12	0.14 – 0.26 in	3.5 – 6.5 mm		12	0.24 – 0.39 in (6 – 10 mm)		4	0.35 – 0.55 in	9 – 14 mm		2	0.47 – 0.71 in (12 – 18 mm)

Selection table cablequick® metal KDP 100 for cables without plugs

[illegible]

Selection table cablequick® metal KDP 105 for cables without plugs

[illegible]

KDP 105/15 in the control cabinet

Selection table cablequick® metal KDP 120/134 for cables without plugs

[illegible]

Selection table cablequick® metal KDP 160 for cables without plugs

- X Number of openings
X Clamping area in inch



0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87	0.94	1.02	1.10
0.14 – 0.26 in (3.5 – 6.5 mm)							16															
									10	0.35 – 0.55 in (9.0 – 14.0 mm)												
											40	0.47 – 0.71 in (12 – 18 mm)										



KDP 149/46: High degree of tightness at IP 65



Selection table KDM for cables without plugs

- X** Number of openings
X Clamping area in inch

	0.04	0.12	0.20	0.28	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.67	0.71	0.75	0.83	0.91	0.98	1.06	1.14	1.22	1.30	1.38
X Number of openings X Clamping area in inch  KDM M16 Order no.: 87401010 0.04 – 0.35 in Ø max. 11 – 9 mm Ø max.																							
 KDM M20 Order no.: 87401012 0.04 – 0.51 in (1 – 13 mm) Ø max. 1																							
 KDM M25 Order no.: 87401014 0.04 – 0.71 in (1 – 18 mm) Ø max. 1																							
 KDM M32 Order no.: 87401016 0.04 – 0.98 in (1 – 25 mm) Ø max. 1																							



Type KDM cable entry membrane and its applications

Selection table KDM/F for cables without plugs

- X** Number of openings
X Clamping area in inch

	0.04	0.12	0.20	0.28	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.67	0.71	0.75	0.83	0.91	0.98	1.06	1.14	1.22	1.30	1.38	
X Number of openings X Clamping area in inch																								
 KDM/F M16 Order no.: 87401050	0.04 – 0.35 in Ø max. 1 1 – 9 mm Ø max.																							
 KDM/F M20 Order no.: 87401052	0.04 – 0.51 in (1 – 13 mm) Ø max. 1																							
 KDM/F M25 Order no.: 87401054	0.04 – 0.71 in (1 – 18 mm) Ø max. 1																							
 KDM/F M32 Order no.: 87401056	0.04 – 0.98 in (1 – 25 mm) Ø max. 1																							



Selection table KDM/G for cables without plugs

X Number of openings X Clamping area in inch	0.16	0.20	0.24	0.28	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.67	0.71	0.75	0.83	0.91	0.98	1.06	1.14	1.22	1.30	1.38
	0.16 – 0.28 in Ø max.	0.20 – 0.39 in Ø max.	0.24 – 0.39 in Ø max.	0.28 – 0.51 in Ø max.	0.35 – 0.51 in Ø max.	0.39 – 0.67 in Ø max.	0.43 – 0.67 in Ø max.	0.47 – 0.83 in Ø max.	0.51 – 0.83 in Ø max.	0.55 – 0.83 in Ø max.	0.59 – 0.83 in Ø max.	0.63 – 0.83 in Ø max.	0.67 – 0.83 in Ø max.	0.71 – 0.83 in Ø max.	0.75 – 0.83 in Ø max.	0.83 – 0.83 in Ø max.	0.91 – 0.83 in Ø max.	0.98 – 0.83 in Ø max.	1.06 – 0.83 in Ø max.	1.14 – 0.83 in Ø max.	1.22 – 0.83 in Ø max.	1.30 – 0.83 in Ø max.	1.38 – 0.83 in Ø max.
 KDM/G M12 Order no.: 87401020	1	4 – 7 mm Ø max.																					
 KDM/G M16 Order no.: 87401022	1	5 – 10 mm Ø max.																					
 KDM/G M20 Order no.: 87401024	1	8 – 13 mm Ø max.																					
 KDM/G M25 Order no.: 87401026	1	11 – 17 mm Ø max.																					
 KDM/G M32 Order no.: 87401028	1	15 – 21 mm Ø max.																					
 KDM/G M40 Order no.: 87401030	1	19 – 28 mm Ø max.																					
 KDM/G M50 Order no.: 87401032	1	19 – 28 mm Ø max.																					





Selection table KDP/EN and KDP/EN-RA 24 for railway technology

- X** Number of openings
X Clamping area in inch

	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87
 KDP/EN 24/11 EN: 87301210 / EN-RA: 87301215			4 0.12 – 0.26 in (3.0 – 6.5 mm)				4 0.20 – 0.36 in (5.0 – 9.2 mm)											3 0.55 – 0.79 in 14 – 20 mm					
 KDP/EN 24/12 EN: 87301220 / EN-RA: 87301225												12 0.31 – 0.47 in					8 – 12 mm						
 KDP/EN 24/13 EN: 87301230 / EN-RA: 87301235			2 0.12 – 0.22 in 3.0 – 5.5 mm		6 0.16 – 0.32 in (4.1 – 8.1 mm)							4 0.35 – 0.55 in						1 0.55 – 0.79 in 14 – 20 mm					
 KDP/EN 24/14 EN: 87301240 / EN-RA: 87301245			6 0.12 – 0.26 in (3.0 – 6.5 mm)				4 0.20 – 0.36 in (5.0 – 9.2 mm)						4 0.38 – 0.63 in (9.6 – 15.9 mm)										
 KDP/EN 24/17 EN: 87301250 / EN-RA: 87301255								17 0.20 – 0.36 in (5.0 – 9.2 mm)															
 KDP/EN 24/17-1 EN: 87301251 / EN-RA: 87301256			11 0.12 – 0.26 in (3.0 – 6.5 mm)		1 0.16 – 0.32 in (4.1 – 8.1 mm)								5 0.31 – 0.49 in					8.0 – 12.5 mm					

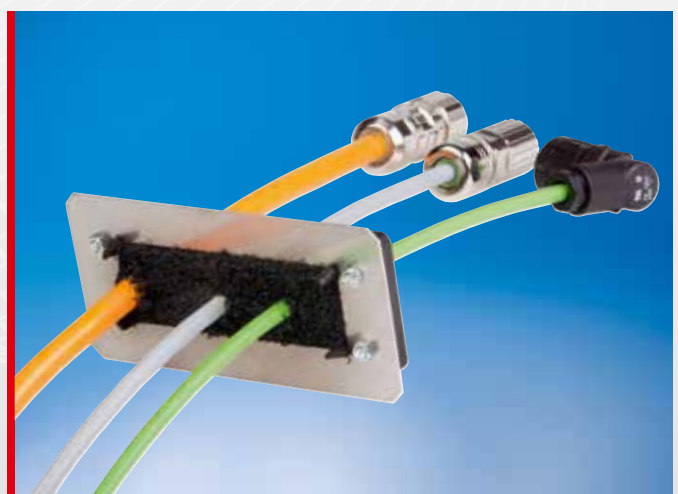
Selection table KDP/EN and KDP/EN-RA 24 for railway technology

- X** Number of openings
X Clamping area in inch

	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.31	0.35	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.71	0.79	0.87	
 KDP/EN 24/22 EN: 87301260 / EN-RA: 87301265			16	0.12 – 0.26 in (3.0 – 6.5 mm)			4	0.20 – 0.36 in (5.0 – 9.2 mm)			2	0.31 – 0.49 in			8.0 – 12.5 mm									
 KDP/EN 24/23 EN: 87301270 / EN-RA: 87301275				23	0.16 – 0.32 in (4.1 – 8.1 mm)																			
 KDP/EN 24/29 EN: 87301280 / EN-RA: 87301285			29	0.12 – 0.26 in (3.0 – 6.5 mm)																				
 KDP/EN 24/80 EN: 87301290 / EN-RA: 87301295			1.5–2.6	78		2	0.10 – 0.20 in			2.5 – 5.0 mm														



KDP/EN plus room integrity mat results in KDP/EN-RA



Expanded room integrity mat after heat application





KDL/C, KDL/D and KDL/H cable entry systems

The technical drawing illustrates the 700 series cable tie-inlet plate from three perspectives:

- Perspective View (Left):** Shows three black plastic plates of increasing size, each featuring a row of circular openings for cable ties.
- Front View (Middle):** A top-down view of the plate showing its rectangular shape with dimensions A (width) and B (height). It features a central row of seven circular holes and two mounting holes at each end.
- Side View (Right):** A cross-sectional view showing the plate's profile. Key dimensions include a (total width), b (height), c (distance from edge to hole center), d (hole depth), and e (hole diameter).

- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- Fits standard cut-out dimensions
- Protection class IP 54.
- Matching grommets: KDT/X

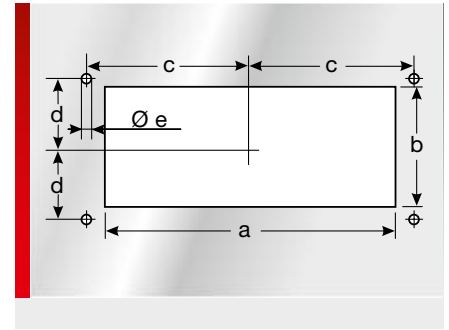
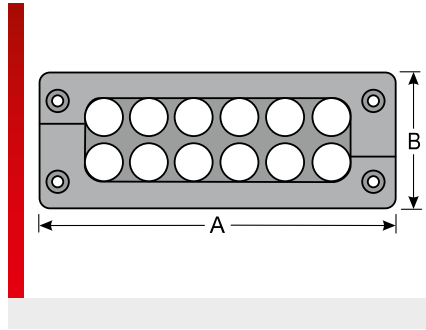
	-22 – 212 °F
	Frame: Polypropylene (PP) Block: TPE
	V0
	IP 54 (with suitable grommets and cables)

[illegible]

Dimension table

[illegible]

KDL/D cable entry system



PRODUCT INFORMATION

The KDL/D cable entry system is used for inserting pre-assembled cables. The KDL/D system is a splittable system that enables the quick and simple installation of up to 48 pre-assembled cables with a high packing density in control cabinets and terminal boxes. In addition, the KDL/D system offers a very high protection class and a very robust design.

- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- Fits standard cut-out dimensions
- High protection class IP65
- KDL/D-R M50/4: Cut-out 50.5 mm (round)
- Matching grommets: KDT/X

SPECIFICATIONS

	-22 – 212 °F
	Frame: Polypropylene (PP) Block: TPE
	V0
	IP 65 (with suitable grommets and cables)

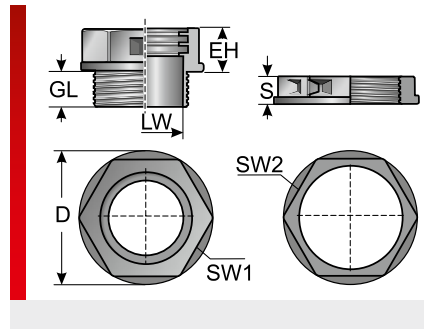


Type	Order No.	Color	No. Openings Small / medium / large	Pack qty.
For standard cut-out size 24				
KDL/D 24/12	87141010	Black	12 / 0 / 0	1
KDL/D 24/9	87141022	Black	8 / 1 / 0	1
KDL/D 24/8	87141018	Black	6 / 2 / 0	1
KDL/D 24/4	87141014	Black	0 / 4 / 0	1
KDL/D 24/3	87141013	Black	0 / 1 / 2	1
For standard cut-out size 16				
KDL/D 16/8	87141026	Black	8 / 0 / 0	1
KDL/D 16/7	87141030	Black	6 / 1 / 0	1
KDL/D 16/2	87141033	Black	0 / 0 / 2	1
KDL/D 16/3	87141034	Black	0 / 3 / 0	1
For standard cut-out size 10				
KDL/D 10/6	87141038	Black	6 / 0 / 0	1
KDL/D 10/5	87141042	Black	4 / 1 / 0	1
KDL/D 10/2	87141039	Black	0 / 2 / 0	1
For standard cut-out size 6				
KDL/D 6/4	87141044	Black	4 / 0 / 0	1
Special size				
KDL/D 1/6	87141048	Black	6 / 0 / 0	1
KDL/D-R M50/4	87141002	Black	4 / 0 / 0	1

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

KDL/D-mono cable entry system



PRODUCT INFORMATION

The KDL/D-mono is a split cable entry system for inserting pre-assembled cables. Depending on the choice of cable entry grommet, up to four cables can be introduced. The split lock nut is included within the scope of delivery.

- Easy assembly and installation of pre-assembled cables
- Integrated and split seal
- Simple strain relief for the cables using cable ties
- Matching grommets: KDT/X

SPECIFICATIONS

	-22 – 212 °F
	Polyamide 6
	V0
	IP 65

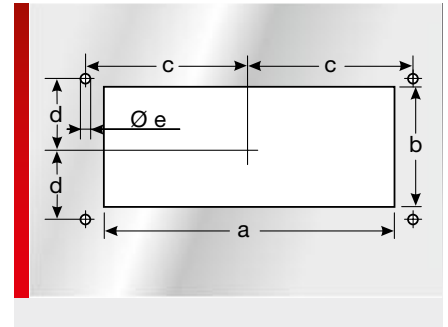
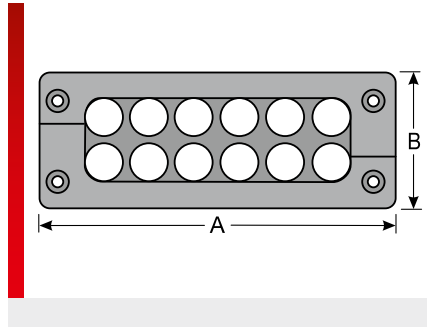


Type	Order No.	Color	No. Openings Small / medium / large	Thread	Pack qty.
KDL/D-mono 1 M25	87141610	Black	1 / 0 / 0	M25x1,5	5
KDL/D-mono 1 M32	87141620	Black	0 / 1 / 0	M32x1,5	5
KDL/D-mono 1 M40	87141636	Black	0 / 1 / 0	M40x1,5	5
KDL/D-mono 2 M40	87141630	Black	2 / 0 / 0	M40x1,5	5
KDL/D-mono 1 M50	87141640	Black	0 / 0 / 1	M50x1,5	5

Dimension table

Type	Order No.	Installation height (EH) inch	Thread length (GL) inch	Diameter (D) inch	Width across flats (SW1/SW2) inch
KDL/D-mono 1 M25	87141610	0.73	0.59	1.57	1.42 / 1.1
KDL/D-mono 1 M32	87141620	0.71	0.59	1.97	1.81 / 1.42
KDL/D-mono 1 M40	87141636	0.71	0.79	2.44	2.17 / 1.81
KDL/D-mono 2 M40	87141630	0.71	0.79	2.44	2.17 / 1.81
KDL/D-mono 1 M50	87141640	0.87	0.79	2.44	2.17 / 2.17

KDL/H cable entry system



PRODUCT INFORMATION

KDL/H is manufactured in a zinc die-cast process and is designed for feed-through of pre-assembled cables. The KDL/D system is a splittable system that enables the quick and easy installation of up to 48 pre-assembled cables with a high packing density in control cabinets and terminal boxes. Special benefits of the KDL/H are:

- Cable infeed without interruption
- Standardized cut-out dimensions
- Easy assembly
- High protection category to IP 69K (in combination with the proper enclosure)
- Very robust construction
- Integrated strain relief
- Matching grommets: KDT/X
- KDL/H M50/4: Cut-out 50.5 mm (round)

SPECIFICATIONS

	-22 – 212 °F
	Frame: ZN Block: TPE
	Frame: Aluminum IP 66/67 (with suitable grommets and cables)
	LABS
	Made in Germany

Type	Order No.	Color	No. Openings Small / medium / large	Pack qty.
For standard cut-out size 24				
KDL/H 24/12	87141410	Black	12 / 0 / 0	1
KDL/H 24/4	87141412	Black	0 / 4 / 0	1
KDL/H 24/3	87141414	Black	0 / 1 / 2	1
For standard cut-out size 16				
KDL/H 16/8	87141418	Black	8 / 0 / 0	1
KDL/H 16/3	87141416	Black	0 / 3 / 0	1
KDL/H 16/2	87141420	Black	0 / 0 / 2	1
Special size				
KDL/H 1/6	87141422	Black	6 / 0 / 0	1
KDL/H M50/4	87141424	Black	4 / 0 / 0	1

Dimension table

Type	Order No.	Installation height (EH) inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
For standard cut-out size 24									
KDL/H 24/12	87141410	0.71	5.83	2.28	4.41	1.42	2.56	0.63	0.22
KDL/H 24/4	87141412	0.71	5.83	2.28	4.41	1.42	2.56	0.63	0.22
KDL/H 24/3	87141414	0.71	5.83	2.28	4.41	1.42	2.56	0.63	0.22
For standard cut-out size 16									
KDL/H 16/8	87141418	0.71	4.76	2.28	3.39	1.42	2.03	0.63	0.22
KDL/H 16/3	87141416	0.71	4.76	2.28	3.39	1.42	2.03	0.63	0.22

KDT/X cable entry grommets



PRODUCT INFORMATION

For example, in conjunction with the KDL/C, KDL/D and KDL/H cable entry systems, the KDT/X cable entry grommet can be used to easily route pre-assembled cables into and through control cabinets. The grommet is retrofitted around the cable.

Double cable grommets, multi-line grommets, ASI bushings, USB-grommets and adapter grommets are not cURus listed.

SPECIFICATIONS

	-22 – 212 °F
	TPE
	V0



Type	Order No.	Color	for Ø inch	For opening Small / medium / large	No. of openings	Pack qty.
Grommet, small						
KDT/X 02	87141210	Black	0.08 – 0.12	• / - / -	1	12
KDT/X 03	87141212	Black	0.12 – 0.16	• / - / -	1	12
KDT/X 04	87141214	Black	0.16 – 0.20	• / - / -	1	12
KDT/X 05	87141216	Black	0.20 – 0.24	• / - / -	1	12
KDT/X 06	87141218	Black	0.24 – 0.28	• / - / -	1	12
KDT/X 07	87141220	Black	0.28 – 0.31	• / - / -	1	12
KDT/X 08	87141222	Black	0.31 – 0.35	• / - / -	1	12
KDT/X 09	87141224	Black	0.35 – 0.39	• / - / -	1	12
KDT/X 10	87141226	Black	0.39 – 0.43	• / - / -	1	12
KDT/X 11	87141228	Black	0.43 – 0.47	• / - / -	1	12
Grommet, medium						
KDT/X 12	87141230	Black	0.47 – 0.51	- / • / -	1	4
KDT/X 13	87141232	Black	0.51 – 0.55	- / • / -	1	4
KDT/X 14	87141234	Black	0.55 – 0.59	- / • / -	1	4
KDT/X 15	87141236	Black	0.59 – 0.63	- / • / -	1	4
KDT/X 16	87141238	Black	0.63 – 0.67	- / • / -	1	4
KDT/X 17	87141240	Black	0.67 – 0.71	- / • / -	1	4
KDT/X 18	87141242	Black	0.71 – 0.75	- / • / -	1	4
KDT/X 19	87141244	Black	0.75 – 0.79	- / • / -	1	4
KDT/X 20	87141246	Black	0.79 – 0.83	- / • / -	1	4
KDT/X 21	87141248	Black	0.83 – 0.87	- / • / -	1	4
Grommet, large						
KDT/X 22	87141250	Black	0.87 – 0.91	- / - / •	1	4
KDT/X 23	87141252	Black	0.91 – 0.94	- / - / •	1	4

KDT/X cable entry grommets (Continued...)



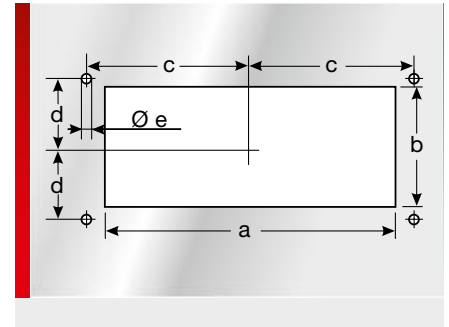
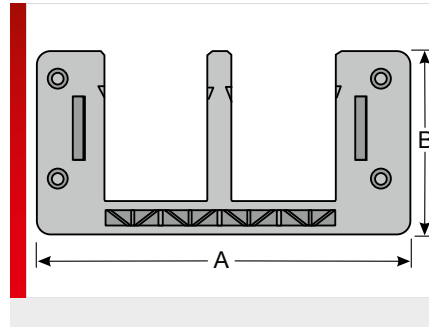
Type	Order No.	Color	for Ø inch	For opening Small / medium / large	No. of openings	Pack qty.
KDT/X 24	87141254	Black	0.94 – 0.98	- / - / •	1	4
KDT/X 25	87141256	Black	0.98 – 1.02	- / - / •	1	4
KDT/X 26	87141258	Black	1.02 – 1.06	- / - / •	1	4
KDT/X 27	87141260	Black	1.06 – 1.10	- / - / •	1	4
KDT/X 28	87141262	Black	1.10 – 1.14	- / - / •	1	4
KDT/X 29	87141264	Black	1.14 – 1.18	- / - / •	1	4
Dummy grommet						
BTK/X (dummy grommet)	87141270	Black		• / - / -	1	12
BTG/X dummy grommet	87141266	Black		- / • / -	1	4
BTG/XL dummy grommet	87141265	Black		- / - / •		4
Double cable grommet						
KDT/X 2x2 ¹⁾	87141275	Black	0.08	• / - / -	2	12
KDT/X 2x3 ¹⁾	87141277	Black	0.12	• / - / -	2	12
KDT/X 2x4 ¹⁾	87141279	Black	0.16	• / - / -	2	12
KDT/X 2x5 ¹⁾	87141281	Black	0.20	- / • / -	2	4
KDT/X 2x6 ¹⁾	87141283	Black	0.24	- / • / -	2	4
KDT/X 2x7 ¹⁾	87141285	Black	0.28	- / • / -	2	4
KDT/X 2x8 ¹⁾	87141287	Black	0.31	- / • / -	2	4
Multi-line sleeve 4-line						
KDT/X 4x2 ¹⁾	87141276	Black	0.08	• / - / -	4	12
KDT/X 4x3 ¹⁾	87141278	Black	0.12	• / - / -	4	12
KDT/X 4x4 ¹⁾	87141280	Black	0.16	• / - / -	4	12
KDT/X 4x5 ¹⁾	87141282	Black	0.20	- / • / -	4	4
KDT/X 4x6 ¹⁾	87141284	Black	0.24	- / • / -	4	4
KDT/X 4x7 ¹⁾	87141286	Black	0.28	- / • / -	4	4
KDT/X 4x8 ¹⁾	87141288	Black	0.31	- / • / -	4	4
Grommet adapter (adapter for small grommet)						
ATG/X ²⁾	87141268	Black		- / • / -		4
ASI bushing (for ASI line)						
KDT/X 1xASI ²⁾	87141274	Black		- / • / -		4
KDT/X 2xASI ²⁾	87141272	Black		- / • / -		4

[illegible]



KDL/E cable entry system

KDL/E cable entry system



PRODUCT INFORMATION

The KDL/E represents the 3rd generation of Murrplastik cable entry systems.

- Even quicker mounting of pre-assembled cables.
- Snap in, meaning screwing on is no longer absolutely necessary
- Catch hook for 0.06 – 0.08 inch plate thickness included with delivery, additional catch hooks for up to 0.16 inch plate thickness available

- Fits standard cut-outs for connectors (e.g. Harting, Wieland and Rittal)
- Simple realization of EMC solution with discharge plate.
- Matching grommets KDT/xE

SPECIFICATIONS

	-40.00 – 176 °F
	Polyamide 6.6
	V0
	IP 54 (with suitable grommets and cables)
	RoHS
	LABS
	UV
	SE
	UL
	Made in Germany

Type	Order No.	Color	No. of openings small / large	for Ø inch	Pack qty.
For standard cut-out size 16					
KDL/E 16/2 ¹⁾	87121010	Black	0 / 2	0.63 – 1.22	1
KDL/E 16/4 ¹⁾	87121011	Black	4 / 0	0.12 – 0.63	1
KDL/E 16/5 ¹⁾	87121012	Black	4 / 1	0.12 – 1.22	1
KDL/E 16/8 ¹⁾	87121014	Black	8 / 0	0.12 – 0.63	1
For standard cut-out size 24					
KDL/E 24/4 ²⁾	87121016	Black	2 / 2	0.12 – 1.22	1
KDL/E 24/7 ²⁾	87121018	Black	6 / 1	0.12 – 1.22	1
KDL/E 24/10 ²⁾	87121020	Black	10 / 0	0.12 – 0.63	1

¹⁾ If catch hooks are used, then the width of the cut-out must be enlarged by 91 mm (3.58 in)

²⁾ For matching adapter plates or floor plates, see chapter “Accessories for cable entry systems and plates”

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
For standard cut-out size 16									
KDL/E 16/2 ¹⁾	87121010	0.61	4.57	2.28	3.39	1.42	2.03	0.63	0.22
KDL/E 16/4 ¹⁾	87121011	0.61	4.57	2.28	3.39	1.42	2.03	0.63	0.22
KDL/E 16/5 ¹⁾	87121012	0.61	4.57	2.28	3.39	1.42	2.03	0.63	0.22
KDL/E 16/8 ¹⁾	87121014	0.61	4.57	2.28	3.39	1.42	2.03	0.63	0.22

[illegible]

KDT/xE cable entry grommets



PRODUCT INFORMATION

The KDT/xE cable entry grommet can be used in conjunction with the KDL/E cable entry systems, e.g. to easily route pre-assembled cables into and through control cabinets. The grommet is 2-pce. and is positioned about the cable. The grommets are equipped with catch hooks that anchor themselves in the KDL/E when installed.

Strain relief for type KDT/ZE is achieved using a simple cable tie. Type KDT/VE is a variable grommet without strain relief which covers a larger clamping range.

SPECIFICATIONS

	-40.00 – 176 °F
	Thermoplastic rubber
	HB



Type	Order No.	Color	for Ø inch	For opening small / large	No. of openings	Suitable for Conduit	Pack qty.
Grommet, small							
KDT/ZE 03	87121210	Black	0.12 – 0.16	• / -	1		10
KDT/ZE 04	87121212	Black	0.16 – 0.20	• / -	1		10
KDT/ZE 05	87121214	Black	0.20 – 0.24	• / -	1		10
KDT/ZE 06	87121216	Black	0.24 – 0.28	• / -	1		10
KDT/ZE 07	87121218	Black	0.28 – 0.31	• / -	1		10
KDT/ZE 08	87121220	Black	0.31 – 0.35	• / -	1		10
KDT/ZE 09	87121222	Black	0.35 – 0.39	• / -	1		10
KDT/ZE 10	87121224	Black	0.39 – 0.43	• / -	1		10
KDT/ZE 11	87121226	Black	0.43 – 0.47	• / -	1		10
KDT/ZE 12	87121228	Black	0.47 – 0.51	• / -	1		10
KDT/ZE 13	87121230	Black	0.51 – 0.55	• / -	1		10
KDT/ZE 14	87121232	Black	0.55 – 0.59	• / -	1		10
KDT/ZE 15	87121234	Black	0.59 – 0.63	• / -	1		10
Grommet, large							
KDT/ZE 16	87121236	Black	0.63 – 0.67	- / •	1		10
KDT/ZE 17	87121238	Black	0.67 – 0.71	- / •	1		10
KDT/ZE 18	87121240	Black	0.71 – 0.75	- / •	1		10
KDT/ZE 19	87121242	Black	0.75 – 0.79	- / •	1		10
KDT/ZE 20	87121244	Black	0.79 – 0.83	- / •	1		10
KDT/ZE 21	87121246	Black	0.83 – 0.87	- / •	1		10
KDT/ZE 22	87121248	Black	0.87 – 0.91	- / •	1		10
KDT/ZE 23	87121250	Black	0.91 – 0.94	- / •	1		10
KDT/ZE 24	87121252	Black	0.94 – 0.98	- / •	1		10
KDT/ZE 25	87121254	Black	0.98 – 1.02	- / •	1		10
KDT/ZE 26	87121256	Black	1.02 – 1.06	- / •	1		10

KDT/xE cable entry grommets (Continued...)

Type	Order No.	Color	for Ø inch	For opening small / large	No. of openings	Suitable for Conduit	Pack qty.
KDT/ZE 27	87121258	Black	1.06 – 1.10	- / •	1		10
KDT/ZE 28	87121260	Black	1.10 – 1.14	- / •	1		10
KDT/ZE 29	87121262	Black	1.14 – 1.18	- / •	1		10
KDT/ZE 30	87121264	Black	1.18 – 1.22	- / •	1		10
Variable cable grommet (Protection class IP 42)							
KDT/VE 3–7 ¹⁾	87121272	Black	0.12 – 0.28	• / -	1		10
KDT/VE 7-10 ¹⁾	87121274	Black	0.28 – 0.39	• / -	1		10
Multi-line sleeve 2-line							
KDT/ZE 2x4 double grommet ²⁾	87121284	Black	0.16	• / -	2		10
KDT/ZE 2x5 double grommet ²⁾	87121286	Black	0.20	• / -	2		10
KDT/ZE 2x6 double grommet ²⁾	87121288	Black	0.24	• / -	2		10
KDT/ZE 2xASI double grommet ¹⁾	87121280	Black		• / -	2		10
KDT/ZE 2x8 double grommet ²⁾	87121291	Black	0.31	• / -	2		10
Multi-line sleeve 4-line							
KDT/ZE 2x7 double grommet ²⁾	87121290	Black	0.28	• / -	2		10
KDT/ZE 4x2 quadruple grommet ²⁾	87121292	Black	0.08	• / -	4		10
KDT/ZE 4x3 quadruple grommet ²⁾	87121293	Black	0.12	• / -	4		10
KDT/ZE 4x4 quadruple grommet ²⁾	87121294	Black	0.16	• / -	4		10
KDT/ZE 4x5 quadruple grommet ²⁾	87121295	Black	0.20	• / -	4		10
KDT/ZE 4x6 quadruple grommet ²⁾	87121296	Black	0.24	• / -	4		10
ASI bushing (for ASI line)							
KDT/ZE ASI ¹⁾	87121282	Black		• / -	1		10
Dummy plug for ASI grommet							
BST KDT/ZE ASI ¹⁾	87121281	Black					10
Grommet adapter (adapter for small grommet)							
ATG/E ¹⁾	87121268	Black		- / •	1		10
Conduit grommet							
SDT/ZE 07 ¹⁾	87174250	Black		• / -	1	M10/P07	10
SDT/ZE 09 ¹⁾	87174252	Black		• / -	1	M12/P09	10
SDT/ZE 11 ¹⁾	87174254	Black		• / -	1	M16/P11	10
SDT/ZE 16 ¹⁾	87174256	Black		- / •	1	M20/P16	10
SDT/ZE 21 ¹⁾	87174258	Black		- / •	1	M25/P21	10
Dummy grommet							
BTK/E	87121266	Black		• / -	0		10
BTG/E	87121270	Black		- / •	0		10

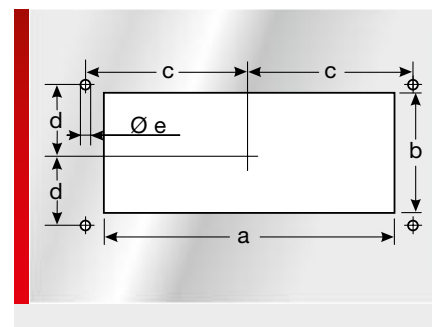
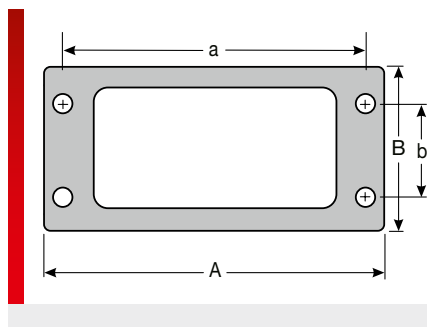
¹⁾ No UR approval

²⁾ no UR-approval / unused openings can be closed off with Type VST sealing plugs



KDL/S cable entry system

KDL/S 16 cable entry system



PRODUCT INFORMATION

The KDL/S cable entry system is a custom plate that allows various kinds of cables to be inserted to accommodate customers' requests and to be able to seal openings. The internal KDT/S grommet can be custom designed based on the customer's desires.

- Fits standard cut-outs for 16-pole connectors (e.g. Harting, Wieland and Rittal).
- Individual solutions
- Matching grommets: KDT/S

SPECIFICATIONS

 -40.00 – 176 °F

 Polyamide 6.6

 V0

 IP 54 (with suitable grommets and cables)

 RoHS

 Made in Germany

Type	Order No.	Color	Pack qty.
For standard cut-out size 16			
KDL/S 16	87173004	Black	1

Dimension table

[illegible]

The KDL/S 24 cable entry system is a custom plate that allows various kinds of cables to be inserted to accommodate customers' requests and to be able to seal openings. The internal KDT/S-K and KDT/S-G grommets can be custom designed based on the customer requests.

- ## SPECIFICATIONS


 -40.00 – 176 °F

 Polyamide 6.6

 V0

Type	Order No.	Color	Pack qty.
KDL/S-G 24	87173032	Black	1
KDL/S-G 24/2	87173036	Black	1
KDL/S-G-K 24/3	87173038	Black	1
KDL/S-K 24	87173030	Black	1
KDL/S-K 24/4	87173034	Black	1

Dimension table

Type	Order No.	A inch	B inch	a inch	b inch
KDL/S-G 24	87173032	5.59	2.28	5.12	1.26
KDL/S-G 24/2	87173036	5.59	4.02	5.12	1.50
KDL/S-G-K 24/3	87173038	5.59	4.02	5.12	1.50
KDL/S-K 24	87173030	5.59	2.28	5.12	1.26
KDL/S-K 24/4	87173034	5.59	4.02	5.12	1.50

The KDT/S cable entry grommets can be manufactured to meet the customer's specifications. They can provide solutions for the most varied of applications, e.g. insertion of cables in the most varied of shapes or sealing of openings for pass-through metal wiring that must be sealed off.

-  -40.00 – 176 °F
 Thermoplastic rubber
 HB

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The KDT/S cable entry grommets can be manufactured to meet the customer's specifications. They can provide solutions for the most varied of applications, e.g. insertion of cables in the most varied of shapes or sealing of openings for pass-through metal wiring that must be sealed off.

SPECIFICATIONS

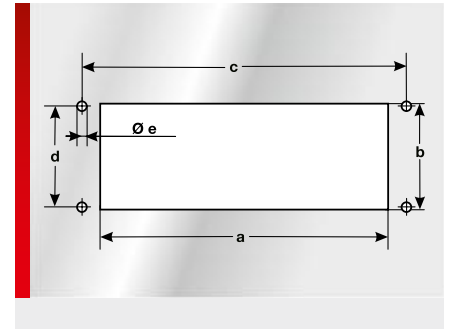
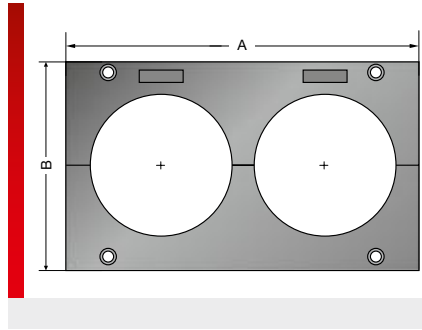
 -40.00 – 176 °F
 Thermoplastic rubber
 HB

Type	Order No.	Color	Pack qty.
KDT/S-K Blind	87175402	Black	1
KDT/S - G blanking / blind / dummy	87175404	Black	1



KDL Jumbo cable entry system

KDL-Jumbo cable entry system



PRODUCT INFORMATION

The KDL-Jumbo cable entry system is used for inserting pre-assembled cables. The KDL-Jumbo system is a fully splittable system that enables the quick and simple installation of 1 or 2 pre-assembled cables or corrugated conduits with a diameter of between 30 mm and 65 mm in control cabinets and terminal boxes. Particular benefits of the KDL-Jumbo noise attenuation liner:

- Cable infeed without interruption
- Very robust and completely splittable system
- Integrated, permanent (captive) seal
- High protection class IP65
- Labeling with KSS 20x9 and KSS 10x8 labels
- Integrated strain relief at the grommets
- Fire classification V0 per UL94
- Supply includes all mounting materials.

SPECIFICATIONS

 -22 – 212 °F
 Polyamide 6.6, PUR
 V0
 IP 65 (with suitable grommets and cables)
 RoHS
 LABS
 UV
 Made in Germany

Type	Order No.	Color	for Ø inch	No. Openings	Pack qty.
KDL-Jumbo 1	87176110	Black	1.18 – 2.56	1	1
KDL-Jumbo 2	87176120	Black	1.18 – 2.56	2	1

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDL-Jumbo 1	87176110	1.38	4.33	4.57	3.54	3.54	2.24	3.98	0.28
KDL-Jumbo 2	87176120	1.38	7.87	4.57	7.09	3.54	5.79	3.98	0.28

The image displays four cross-sectional views of a mechanical part, likely a bearing or a similar component. The views are arranged in a 2x2 grid. The top-left view shows a cross-section with a central hole and a flange. The top-right view shows a cross-section with a central hole and a flange, but with a different internal profile. The bottom-left view shows a cross-section with a central hole and a flange, with a different internal profile. The bottom-right view shows a cross-section with a central hole and a flange, with a different internal profile. The views illustrate different internal features and tolerances.

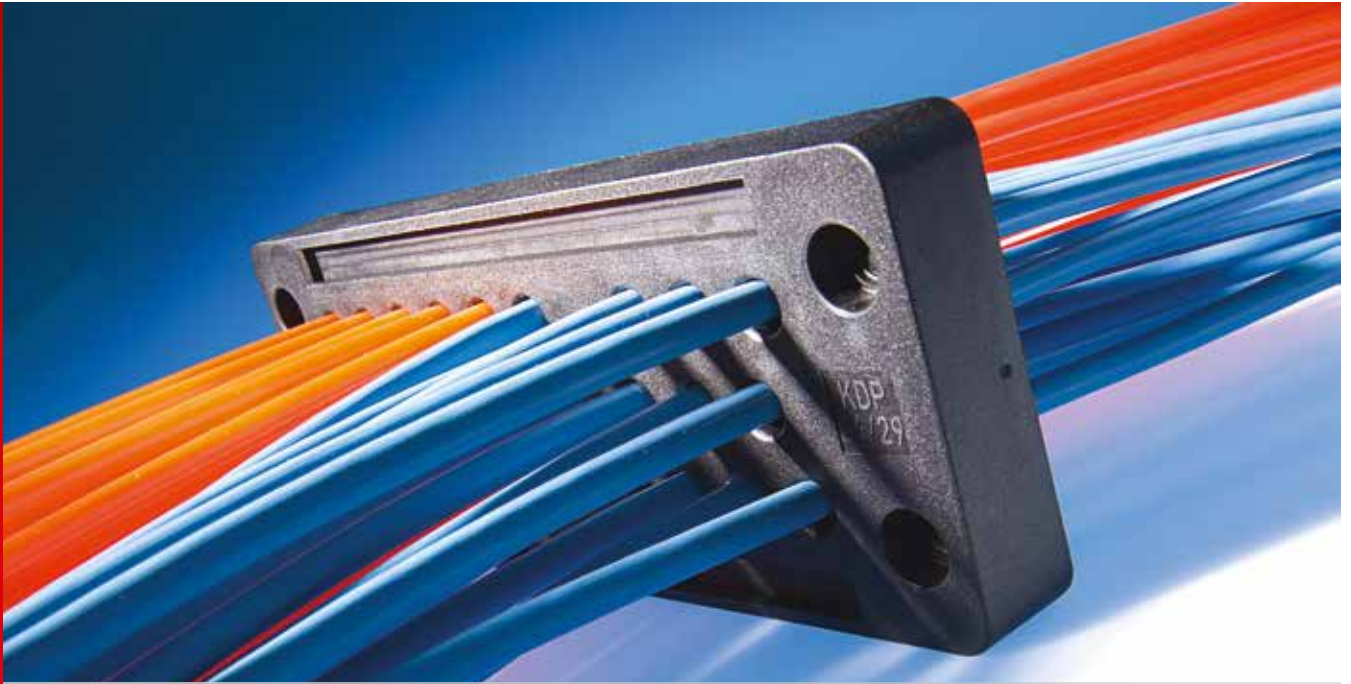
The cable entry grommet KDT/Z-Jumbo allows the fitting of cables from 30-65 mm in size in the openings of the KDL-Jumbo cable entry system. The grommet has two parts, and is aligned and installed with the frame halves together around the cable. Strain relief can be provided quickly and easily for cables using cable ties.

-22 – 212 °F
TPE-S
V0



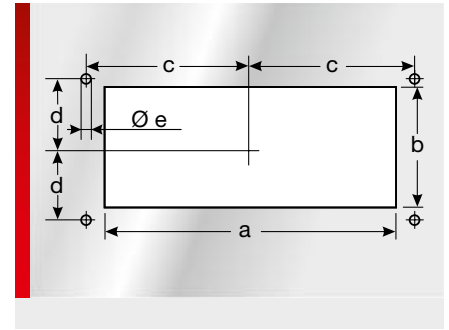
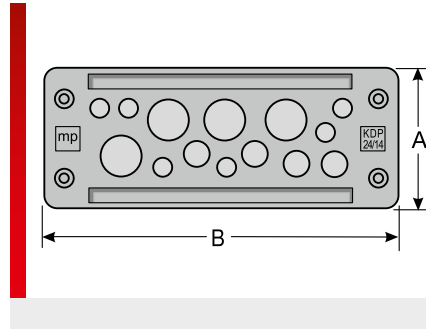
Type	Order No.	Color	for Ø inch	No. Openings	Pack qty.
KDT/Z-Jumbo 30-35	87176212	Black	1.18 – 1.38	1	1
KDT/Z-Jumbo 35-40	87176214	Black	1.38 – 1.57	1	1
KDT/Z-Jumbo 40-45	87176216	Black	1.57 – 1.77	1	1
KDT/Z-Jumbo 45-50	87176218	Black	1.77 – 1.97	1	1
KDT/Z-Jumbo 50-55	87176220	Black	1.97 – 2.17	1	1
KDT/Z-Jumbo 55-60	87176222	Black	2.17 – 2.36	1	1
KDT/Z-Jumbo 60-65	87176224	Black	2.36 – 2.56	1	1

BT-Jumbo	87176210	Black	1
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KDP cable entry plate, plastic, rectangular

KDP/N 24 cable entry plate, plastic



PRODUCT INFORMATION

Second generation of our cable entry plates plastic, square with improved clip-in function. Economical connection technology for tool-free wiring of equipment and machinery. Wherever the rapid and economical introduction of cables and/or pneumatic hoses in confined spaces is essential. The alternative to cable fittings. Suitable for

standard cut-outs for 24-pin Harting and Wieland connectors. For snap-in fastening and/or screwing in place.

- Snap-in at plate thicknesses of 0.06 to 0.08 inch
- High degree of strain relief
- 2 elastomer panels (seals)

SPECIFICATIONS

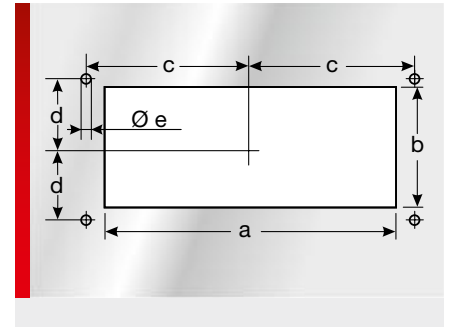
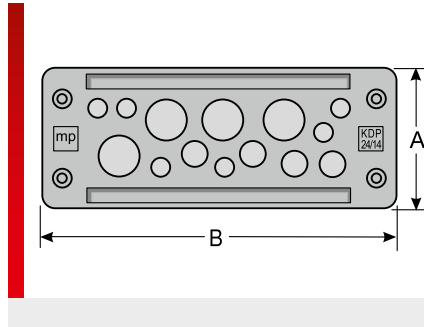
	-22 – 158 °F
	Enclosure: Polyamide 6.6 Seal: TPU / NBR / EPDM
	IP 65
	
	

Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/N 24/10	87301108	Black	10	2x 0.12 – 0.26 1x 0.2 – 0.36 5x 0.35 – 0.55 2x 0.55 – 0.79	1
KDP/N 24/11	87301110	Black	11	4x 0.12 – 0.26 4x 0.2 – 0.36 3x 0.55 – 0.79	1
KDP/N 24/12	87301120	Black	12	12x 0.31 – 0.47	1
KDP/N 24/13	87301130	Black	13	2x 0.12 – 0.22 6x 0.16 – 0.32 4x 0.35 – 0.55 1x 0.55 – 0.79	1
KDP/N 24/14	87301140	Black	14	6x 0.12 – 0.26 4x 0.2 – 0.36 4x 0.38 – 0.63	1
KDP/N 24/17	87301150	Black	17	17x 0.2 – 0.36	1
KDP/N 24/17-1	87301151	Black	17	11x 0.12 – 0.26 1x 0.16 – 0.32 5x 0.31 – 0.49	1
KDP/N 24/22	87301160	Black	22	16x 0.12 – 0.26 4x 0.2 – 0.36 2x 0.31 – 0.49	1
KDP/N 24/23	87301170	Black	23	23x 0.16 – 0.32	1
KDP/N 24/29	87301180	Black	29	29x 0.12 – 0.26	1
KDP/N 24/80	87301190	Black	80	78x 0.06 – 0.1 2x 0.1 – 0.2	1

Dimension table

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KDP/X 24 cable entry plate, plastic



PRODUCT INFORMATION

Fourth Generation of our cable entry plates, plastic, square, with improved clip-in function and one instead of two elastomer plates. Economical connection technology for tool-free wiring of equipment and machinery. Wherever the rapid and economical introduction of cables and/or pneumatic hoses in confined spaces is essential. The

alternative to cable fittings. Suitable for standard cut-outs for 24-pin Harting and Wieland connectors. For snap-in fastening and/or screwing in place.

- Snap-in at plate thicknesses of 0.06 to 0.08 inch
- High degree of strain relief

SPECIFICATIONS

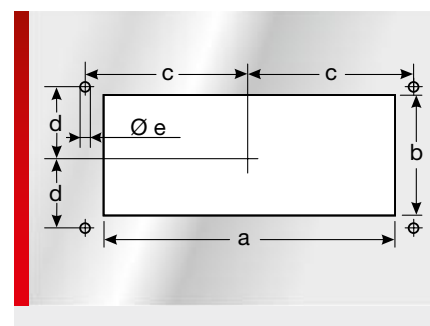
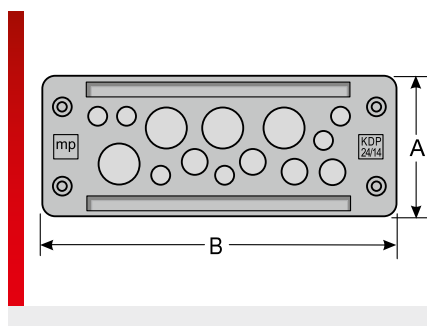
	-22 – 158 °F
	Enclosure: Polyamide 6.6 Seal: TPU / EPDM
	IP 65
	LABS
	Made in Germany

Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/X 24/10	87301305	Black	10	2x 0.12 – 0.26 1x 0.2 – 0.36 5x 0.35 – 0.55 2x 0.55 – 0.79	1
KDP/X 24/11	87301315	Black	11	4x 0.12 – 0.26 4x 0.2 – 0.36 3x 0.55 – 0.79	1
KDP/X 24/12	87301325	Black	12	12x 0.31 – 0.47	1
KDP/X 24/13	87301335	Black	13	2x 0.12 – 0.22 6x 0.16 – 0.32 4x 0.35 – 0.55 1x 0.55 – 0.79	1
KDP/X 24/14	87301345	Black	14	6x 0.12 – 0.26 4x 0.2 – 0.36 4x 0.38 – 0.63	1
KDP/X 24/17	87301355	Black	17	17x 0.2 – 0.36	1
KDP/X 24/17-1	87301356	Black	17	11x 0.12 – 0.26 1x 0.16 – 0.32 5x 0.31 – 0.49	1
KDP/X 24/22	87301365	Black	22	16x 0.12 – 0.26 4x 0.2 – 0.36 2x 0.31 – 0.49	1
KDP/X 24/23	87301375	Black	23	23x 0.16 – 0.32	1
KDP/X 24/29	87301385	Black	29	29x 0.12 – 0.26	1

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

KDP/E 24 cable entry plate, plastic



PRODUCT INFORMATION

Third Generation of our cable entry plates, plastic, square, with improved clip-in function and one instead of two elastomer plates. Economical connection technology for tool-free wiring of equipment and machinery. Wherever the rapid and economical introduction of cables and/or pneumatic hoses in confined spaces is essential. The alternative to cable fittings. Suitable for standard cut-outs for 24-pin Harting and

Wieland connectors. For snap-in fastening and/or screwing in place.

- Snap-in at plate thicknesses of 0.06 to 0.08 inch
- Lower strain relief
- Introduction of larger cable diameters is possible
- Introduction from both sides is possible

SPECIFICATIONS

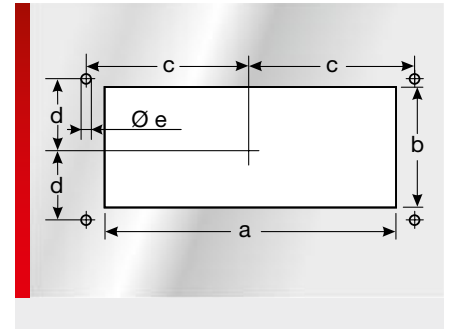
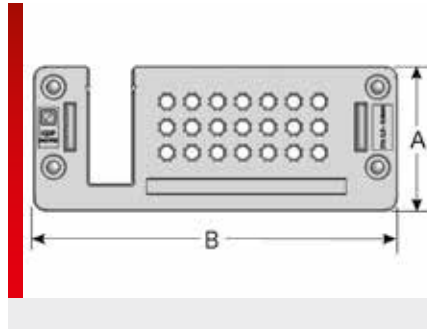
 -22 – 158 °F
 Frame: Polyamide 6.6
 Seal: TPU / EPDM
 IP 65

Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/E 24/11	87301310	Black	11	4x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/E 24/12	87301320	Black	12	12x 0.31 – 0.47	1
KDP/E 24/13	87301330	Black	13	2x 0.12 – 0.22	1
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
				1x 0.55 – 0.79	
KDP/E 24/14	87301340	Black	14	6x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				4x 0.38 – 0.63	
KDP/E 24/17	87301350	Black	17	17x 0.2 – 0.36	1
KDP/E 24/17-1	87301351	Black	17	11x 0.12 – 0.26	1
				1x 0.16 – 0.32	
				5x 0.31 – 0.49	
KDP/E 24/22	87301360	Black	22	16x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				2x 0.31 – 0.49	
KDP/E 24/23	87301370	Black	23	23x 0.16 – 0.32	1
KDP/E 24/29	87301380	Black	29	29x 0.12 – 0.26	1
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Dimension table

[illegible]

KDP 24-Multi cable entry plate, plastic



PRODUCT INFORMATION

The cable entry plates, type KDP 24-Multi are a combination of our KDP system and our cable entry strips KDL/E. They are ideal for situations where a few cables with plugs have to be brought into the control cabinet next to cables without plugs. These cable entry plates take up to four preassembled cables in two grommets.

- Catch hook for 0.06 – 0.08 inch plate thickness included with delivery, additional catch hooks for up to 0.16 inch plate thickness available

SPECIFICATIONS

	-22 – 158 °F
	Enclosure: Polyamide Seal: TPU / NBR / EPDM
	IP 54

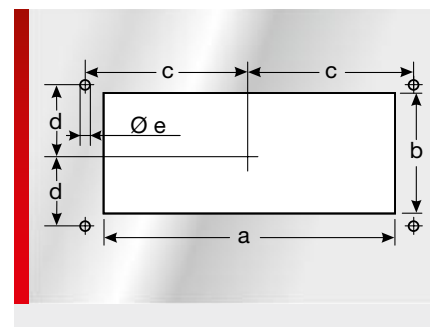
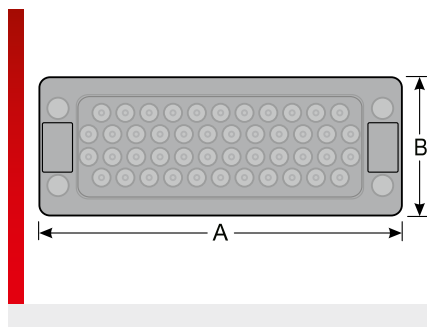


Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	No. Grommets	Pack qty.
KDP 24/10/02	87301076	Black	10	4x 0.12 – 0.26 2x 0.18 – 0.33 4x 0.31 – 0.49	2	1
KDP 24/14/02	87301078	Black	14	4x 0.1 – 0.2 2x 0.12 – 0.26 8x 0.18 – 0.33	2	1
KDP 24/15/02	87301080	Black	15	2x 0.06 – 0.14 11x 0.12 – 0.26 2x 0.33 – 0.49	2	1
KDP 24/17/02	87301082	Black	17	17x 0.12 – 0.26	2	1
KDP 24/20/02	87301084	Black	20	4x 0.06 – 0.14 6x 0.12 – 0.2 10x 0.12 – 0.26	2	1
KDP 24/21/02	87301086	Black	21	21x 0.1 – 0.2	2	1

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP 24/10/02	87301076	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22
KDP 24/14/02	87301078	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22
KDP 24/15/02	87301080	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22
KDP 24/17/02	87301082	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22
KDP 24/20/02	87301084	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22
KDP 24/21/02	87301086	0.61	2.28	5.75	4.41	1.42	2.56	0.63	0.22

KDP/F 24 cable entry plate, plastic



PRODUCT INFORMATION

The KDP/F 24 cable entry plate is an entry and fastening system for cables and pneumatic hoses such as those used in control cabinets, plant or machine construction. Wherever quick assembly, cable-protection and high packing density are required, this cable entry plate can be used.

- Enormous time savings in assembly
- High packing density
- Large wire diameter ranges
- Several cables may be fed through an opening together
- Very flat design

SPECIFICATIONS

	-22 – 158 °F
	Frame: Polypropylene (PP) Seal: TPE
	HB
	IP 65
	RoHS
	LABS
	UV
	Made in Germany

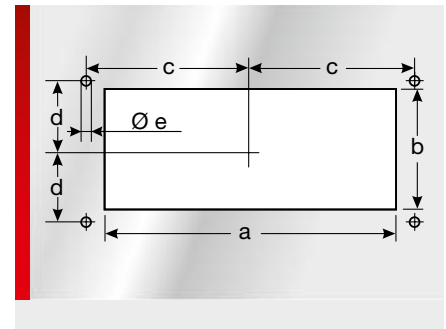
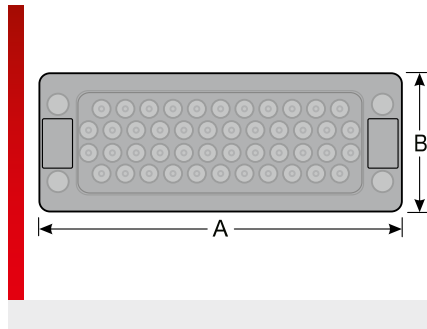
Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/F 24-14	87302010	Black	14	6x max. 0.35 4x max. 0.43 4x max. 0.71	1
KDP/F 24-14	87302011	Black	14	6x max. 0.35 4x max. 0.43 4x max. 0.71	100
KDP/F 24-22	87302020	Black	22	16x max. 0.35 4x max. 0.43 2x max. 0.59	1
KDP/F 24-22	87302021	Black	22	16x max. 0.35 4x max. 0.43 2x max. 0.59	100
KDP/F 24-28	87302040	Black	28	28x max. 0.35	1
KDP/F 24-28	87302041	Black	28	28x max. 0.35	100
KDP/F 24-46	87302050	Black	46	46x max. 0.26	1
KDP/F 24-46	87302051	Black	46	46x max. 0.26	100
KDP/F 24-multi	87302030	Black	3	3x max. 1.06	1
KDP/F 24-multi	87302031	Black	3	3x max. 1.06	100

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP/F 24-14	87302010	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-14	87302011	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-22	87302020	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP/F 24-22	87302021	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-28	87302040	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-28	87302041	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-46	87302050	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-46	87302051	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-multi	87302030	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22
KDP/F 24-multi	87302031	0.39	5.83	2.36	4.41	1.42	2.56	0.63	0.22

KDP/Z 24 cable entry plate, plastic



PRODUCT INFORMATION

The KDP/Z 24 cable entry plate is an entry and fastening system for cables and pneumatic hoses such as those used in control cabinets, plant or machine construction. Wherever quick assembly, cable-protection and high packing density are required, this cable entry plate can be used.

- Enormous time savings in assembly
- High packing density
- Large wire diameter ranges
- Good strain relief
- Very flat design

SPECIFICATIONS

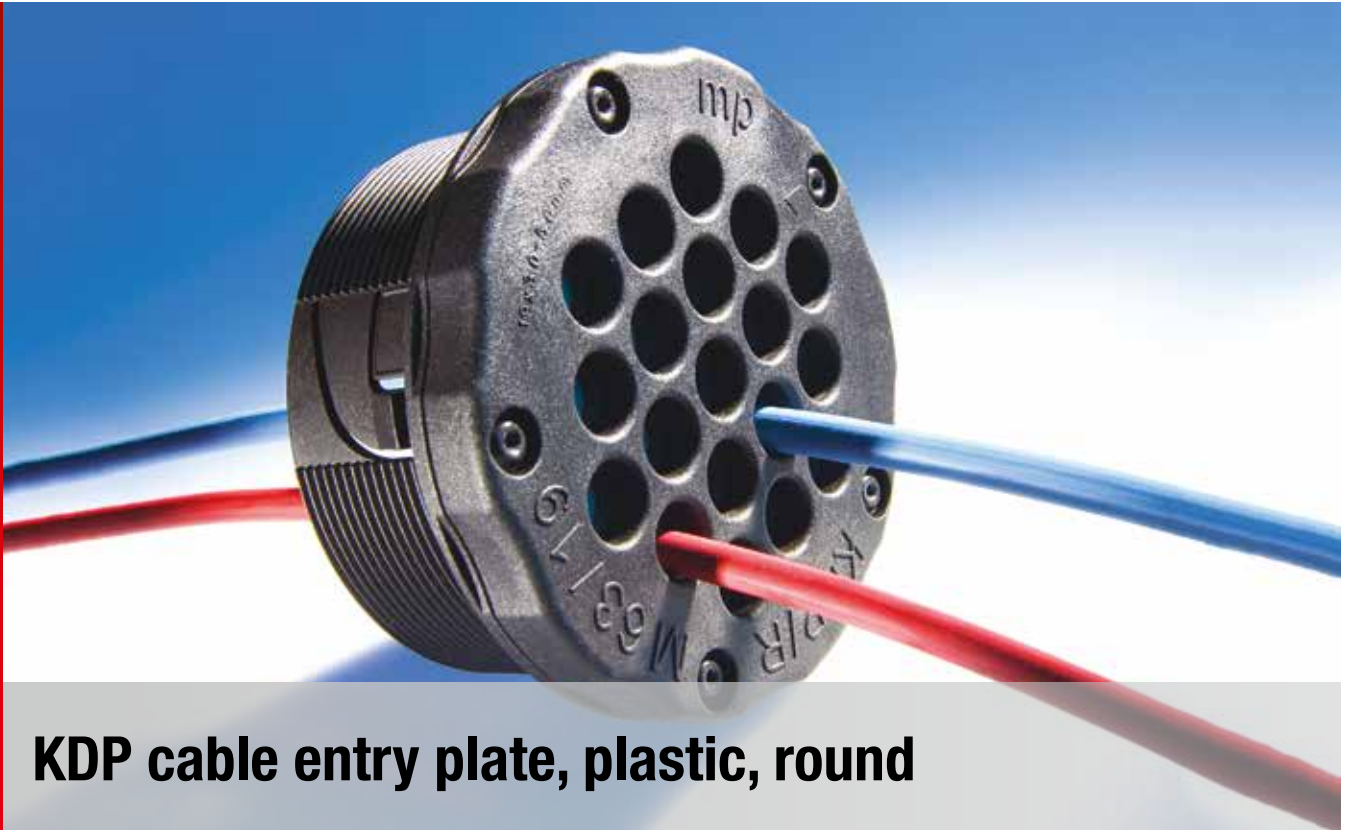
	-22 – 158 °F
	Frame: Polypropylene (PP) Seal: TPE
	V0 Frame: HB Seal:
	IP 65



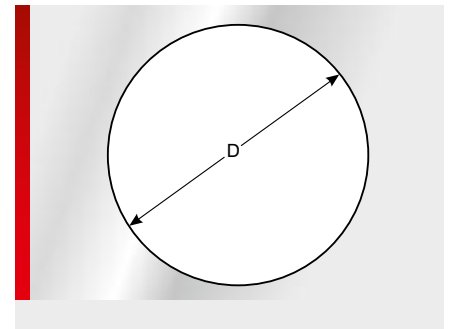
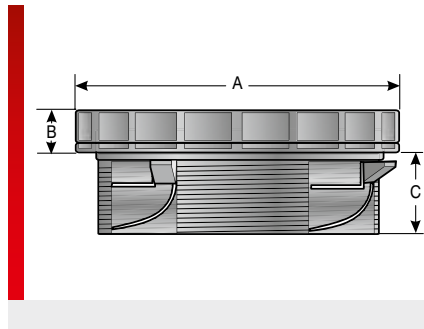
Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/Z 24/14	87303010	Black	14	14x 0.3 – 0.47	5
KDP/Z 24/14-1	87303020	Black	14	2x 0.12 – 0.24	5
				4x 0.2 – 0.35	
				3x 0.3 – 0.47	
				3x 0.39 – 0.63	
				2x 0.55 – 0.79	
KDP/Z 24/23	87303030	Black	23	23x 0.2 – 0.35	5
KDP/Z 24/30	87303040	Black	30	20x 0.12 – 0.24	5
				6x 0.2 – 0.35	
				4x 0.3 – 0.47	
KDP/Z 24/48	87303050	Black	48	28x 0.12 – 0.24	5
				20x 0.08 – 0.16	

Dimension table

Type	Order No.	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP/Z 24/14	87303010	5.87	2.40	4.41	1.42	2.56	0.63	0.22
KDP/Z 24/14-1	87303020	5.87	2.40	4.41	1.42	2.56	0.63	0.22
KDP/Z 24/23	87303030	5.87	2.40	4.41	1.42	2.56	0.63	0.22
KDP/Z 24/30	87303040	5.87	2.40	4.41	1.42	2.56	0.63	0.22
KDP/Z 24/48	87303050	5.87	2.40	4.41	1.42	2.56	0.63	0.22



KDP/R cable entry plate, plastic, round



PRODUCT INFORMATION

Economical connection technology for tool-free wiring of equipment and machinery. Extremely quick mounting of cables and pneumatic hoses. The alternative to cable fittings. For snap-in fastening or screwing in place with a lock nut. Lock nut not included with delivery!

- For snapping into 0.06 – 0.08 inch plates
- Integrated seal
- Compact design
- High protection class

SPECIFICATIONS

	-22 – 194 °F		
	Enclosure: Polyamide 6.6 Seal: NBR / EPDM		
	IP 65		
			

Type	Order No.	Color	No. of openings Total	Openings Quantity / Ø inch	Thread metric	A inch	B inch	C inch	D inch	Pack qty.
KDP/R M50/04	87301030	Black	4	3x 0.24 – 0.39 1x 0.38 – 0.63	M50x1,5	2.28	0.35	0.94	1.99	1
KDP/R M50/06	87301032	Black	6	1x 0.12 – 0.22 5x 0.2 – 0.36	M50x1,5	2.28	0.35	0.94	1.99	1
KDP/R M50/08	87301034	Black	8	7x 0.14 – 0.26 1x 0.24 – 0.39	M50x1,5	2.28	0.35	0.94	1.99	1
KDP/R M50/31 ¹⁾	87301038	Black	31	31x 0.06 – 0.12	M50x1,5	2.28	0.35	0.94	1.99	1
KDP/R M63/08	87301040	Black	8	2x 0.12 – 0.26 4x 0.2 – 0.36 2x 0.38 – 0.63	M63x1,5	2.80	0.35	0.98	2.50	1
KDP/R M63/13	87301042	Black	13	6x 0.12 – 0.22 6x 0.14 – 0.26 1x 0.24 – 0.39	M63x1,5	2.80	0.35	0.98	2.50	1
KDP/R M63/19	87301044	Black	19	19x 0.12 – 0.2	M63x1,5	2.80	0.35	0.98	2.50	1
KDP/R M63/46 ¹⁾	87301048	Black	46	46x 0.06 – 0.12	M63x1,5	2.80	0.35	0.98	2.50	1

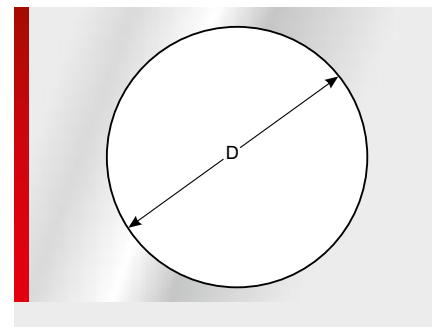
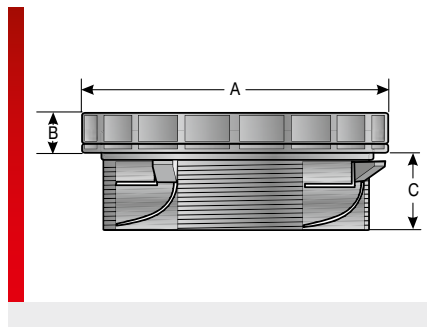
¹⁾ No UR approval

Economical connection technology for tool-free wiring of equipment and machinery. Extremely quick mounting of cables and pneumatic hoses. The alternative to cable fittings. For snap-in fastening or screwing in place with a lock nut.

- ## SPECIFICATIONS

 -22 – 194 °F
 Enclosure: Polyamide 6.6
 Seal: NBR / EPDM
 IP 65

KDPR/F cable entry plate, plastic, round



PRODUCT INFORMATION

The KDPR/F cable entry plate is made of modified Polypropylene and is a round entry and fastening system for cables without plugs and pneumatic hoses such as those used in control cabinets, plant or machine construction. Wherever quick assembly is required with high packing density and cables must be protected, the cable insertion system is used.

Special benefits of the KDPR/F are:

- Enormous time savings in assembly
- High packing density
- Standardized cut-out dimensions
- Large wire diameter ranges
- Several cables may be fed through an opening together
- Very flat design

SPECIFICATIONS

 -22 – 158 °F
 Frame: Polypropylene (PP)
 Seal: TPE
 HB
 IP 65
 RoHS
 Made in Germany

Type	Order No.	Color	Openings Quantity / Ø inch	Thread metric	B inch	D inch	Pack qty.
KDPR/F 40/8	87302072	Black	8x max. 0.33	M40x1,5	0.26	1.59	5
KDPR/F 40/multi	87302070	Black	2x max. 0.55	M40x1,5	0.26	1.59	5



KDP cablequick® cable entry plate, metal, rectangular

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

SPECIFICATIONS


 -22 – 194 °F

 Seal: NBR / EPDM

 IP 65


 RoHS


 LABS


 UV

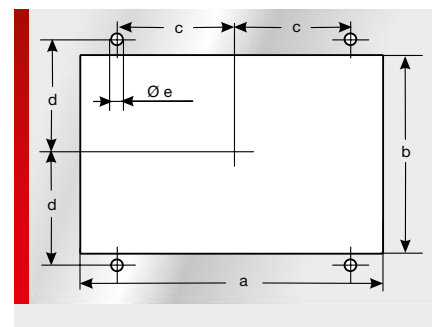
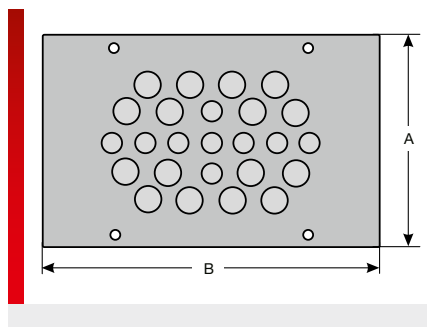

 CE


 UL

Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/13 V4A	87663118	Smoothed	13	2x 0.12 – 0.24	1
				4x 0.18 – 0.33	
				4x 0.24 – 0.39	
				2x 0.35 – 0.55	
				1x 0.55 – 0.71	

Dimension table

cablequick® Type 90 (90x144 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. The stainless steel version is particularly suitable for application in the

food and chemical areas. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

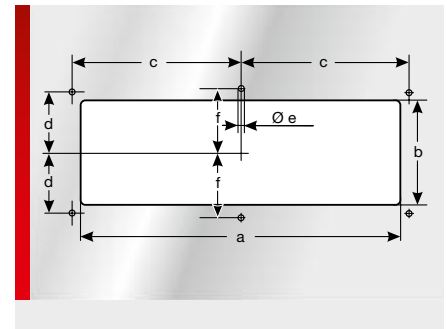
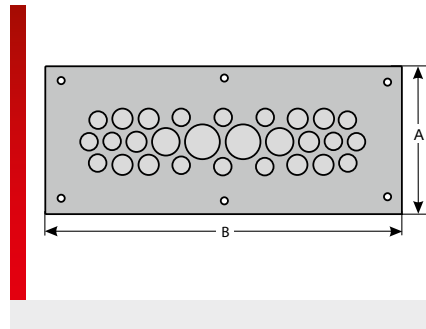
SPECIFICATIONS

 -22 – 194 °F
 Seal: NBR / EPDM
 IP 65

Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/25 ALU	87663022	RAL 7035	25	9x 0.12 – 0.2	1
				16x 0.16 – 0.31	

Dimension table

cablequick® Type 90 (90x221 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. The stainless steel version is particularly suitable for applications in the food and chemical industry. Integrated

threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137
- Rittal cut-out 2

SPECIFICATIONS



-22 – 194 °F



Seal: NBR / EPDM



IP 65



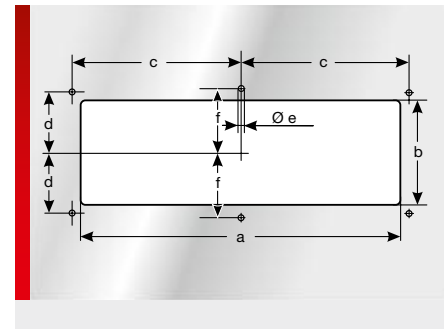
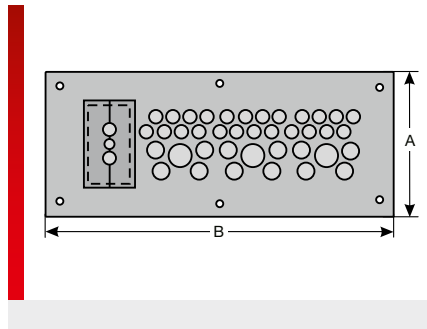
Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/18 V4A ¹⁾	87663028	Smoothed	18	9x 0.24 – 0.39	1
				8x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 90/28 ALU	87663032	RAL 7035	28	14x 0.16 – 0.31	1
KDP 90/28 V4A	87663034	Smoothed	28	10x 0.24 – 0.39	1
				2x 0.35 – 0.55	
				2x 0.47 – 0.71	
KDP 90/47 ALU ¹⁾	87663037	RAL 7035	47	14x 0.14 – 0.26	1
				28x 0.18 – 0.33	
				4x 0.28 – 0.43	
				1x 0.43 – 0.63	
KDP 90/47 V4A ¹⁾	87663039	Smoothed	47	14x 0.14 – 0.26	1
				28x 0.18 – 0.33	
				4x 0.28 – 0.43	
				1x 0.43 – 0.63	
KDP 90/55 V4A	87663058	Smoothed	55	3x 0.12 – 0.2	1
				32x 0.12 – 0.24	
				16x 0.16 – 0.31	
				4x 0.31 – 0.47	

¹⁾No UR approval

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

cablequick® Type 90+3 (90x221 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. The cut-out of the KDP 90/39+3 enables up to three pre-assembled cables with a maximum plug size of 48 x 24 mm to be introduced. The connector grommet is simply inserted into the plate and locked from behind by means of a quick-

release lock. The stainless steel version is particularly suitable for applications in the food and chemical industry. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137
- Rittal cut-out 2

SPECIFICATIONS



-22 – 194 °F



Seal: NBR / EPDM



IP 65

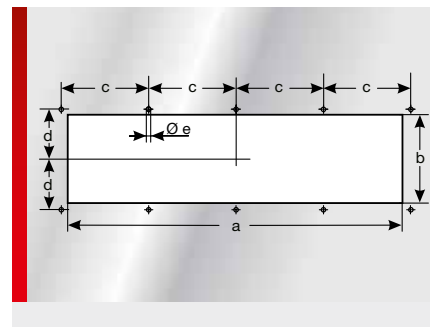
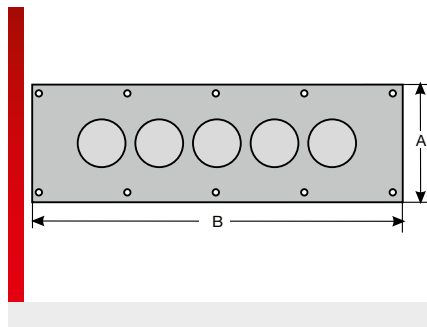
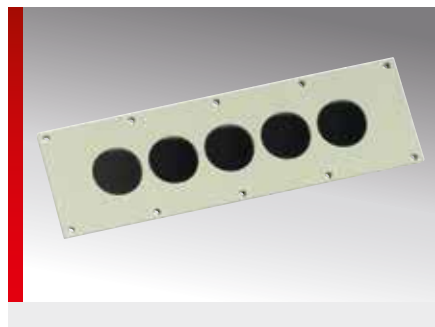


Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/39+3 ALU	87663036	RAL 7035	42	24x 0.12 – 0.24	1
				12x 0.16 – 0.31	
				3x 0.31 – 0.47	
KDP 90/39+3 V4A	87663038	Smoothed	42	24x 0.12 – 0.24	1
				12x 0.16 – 0.31	
				3x 0.31 – 0.47	

Dimension table

Type	Order No.	A inch	B inch	a inch	b inch	c inch	d inch	e inch	f inch
KDP 90/39+3 ALU	87663036	3.54	8.70	7.56	2.44	3.98	1.42	0.18	1.50
KDP 90/39+3 V4A	87663038	3.54	8.70	7.56	2.44	3.98	1.42	0.18	1.50

cablequick® Type 90 (90x294 mm)



PRODUCT INFORMATION

Cable entry plate for insertion of power cables. Ideally suited for roof or floor openings at switch cabinets.

The stainless steel version is particularly suitable for application in the food and chemical areas. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

SPECIFICATIONS

 -22 – 194 °F
 Seal: NBR / EPDM
 IP 65

Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/5 ALU ¹⁾	87663029	RAL 7035	5	5x 0.63 – 1.1	1

¹⁾ Maximum cable lug width of power cables is 1.26 inch (32.0 mm)

Dimension table

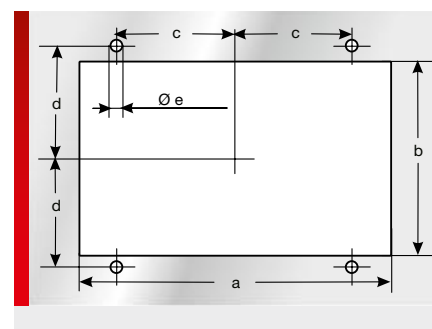
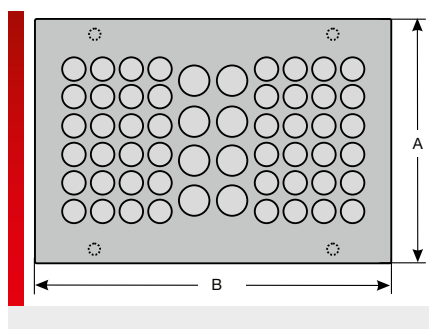
Type	Order No.	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP 90/5 ALU ¹⁾	87663029	3.54	11.57	10.67	2.80	2.76	1.56	0.22

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

 -22 – 194 °F
 Seal: NBR / EPDM
 IP 65

Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/8 ALU ¹⁾	87663026	RAL 7035	8	8x 0.63 – 1.1	1
¹⁾ Maximum cable lug width of power cables is 1.26 inch (32.0 mm)					

Dimension table



Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. KDPs of the product group 100 fits into standard cut-outs for Rittal and Sarel cabinets when combined with adapter plates. These adapter plates can be configured individually.

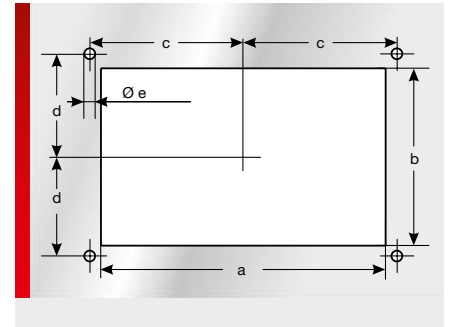
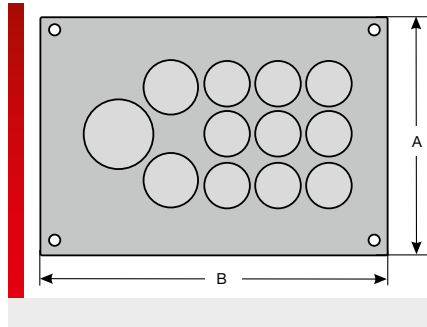
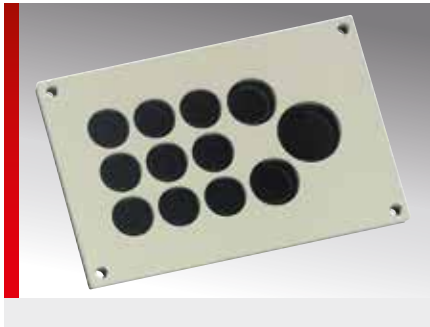
- V4A : 1.4571
- ALU : 3.3535
- ST : 137

 -22 – 194 °F
 Seal: NBR / EPDM
 IP 35

Figure 1 consists of three parts: (a) a photograph of the physical test specimen, which is a rectangular plate with a grid of circular holes; (b) a top view schematic diagram showing the plate dimensions A and B , the hole diameter $\varnothing e$, and the spacing C between holes; (c) a side view schematic diagram showing the plate thickness a , the hole diameter $\varnothing e$, and the distance b from the hole center to the bottom edge, with c and d indicating horizontal and vertical offsets.

[illegible]

cablequick® Type 105 (105x155 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. KDPs of the product group 105 fits into standard cut-outs for Rittal and Sarel cabinets when combined with adapter plates. These adapter plates can be configured individually.

The stainless steel version is particularly suitable for applications in the food and chemical industry. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

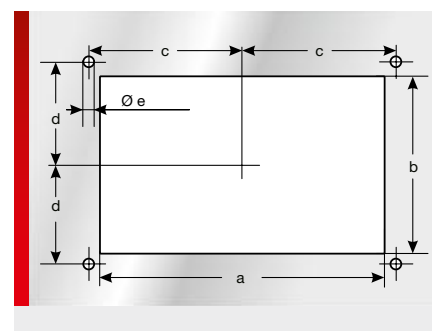
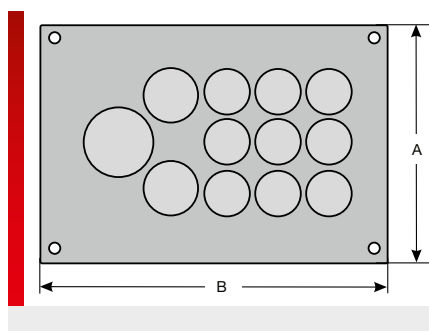
SPECIFICATIONS

	-22 – 194 °F
	Seal: NBR / EPDM
	IP 65
	
	
	
	
	

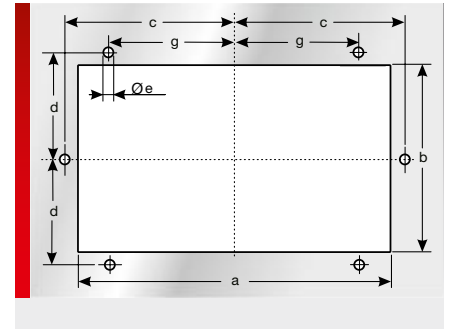
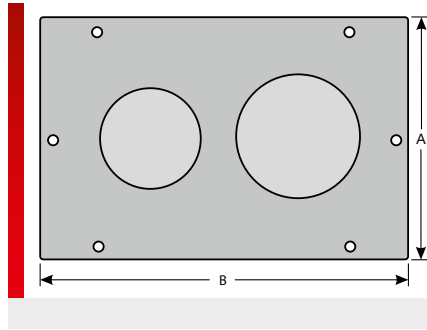
Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 105/12 ALU	87663056	RAL 7035	12	9x 0.35 – 0.55	1
				2x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 105/12 V4A	87663057	Smoothed	12	9x 0.35 – 0.55	1
				2x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 105/15 ALU	87663014	RAL 7035	15	8x 0.24 – 0.39	1
				4x 0.35 – 0.63	
				3x 0.47 – 0.71	
KDP 105/15 V4A	87663016	Smoothed	15	8x 0.24 – 0.39	1
				4x 0.35 – 0.55	
				3x 0.47 – 0.71	
KDP 105/32 ALU	87663010	RAL 7035	32	16x 0.12 – 0.2	1
				12x 0.16 – 0.31	
				4x 0.24 – 0.39	
KDP 105/32 V4A	87663012	Smoothed	32	16x 0.12 – 0.2	1
				12x 0.16 – 0.31	
				4x 0.24 – 0.39	

Dimension table

Type	Order No.	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP 105/12 ALU	87663056	4.13	6.10	5.20	3.23	2.81	1.83	0.22
KDP 105/12 V4A	87663057	4.13	6.10	5.20	3.23	2.81	1.83	0.22
KDP 105/15 ALU	87663014	4.13	6.10	5.20	3.23	2.81	1.83	0.22



cablequick® Type 120 (120x190 mm)



PRODUCT INFORMATION

Tool-less, rational connection technology for the electrical power sector. Performance cables and services are sealed and fed into control cabinets or junction boxes and are supported flexibly.

The stainless steel version is particularly suitable for application in the food and chemical areas.

Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

SPECIFICATIONS



-22 – 194 °F



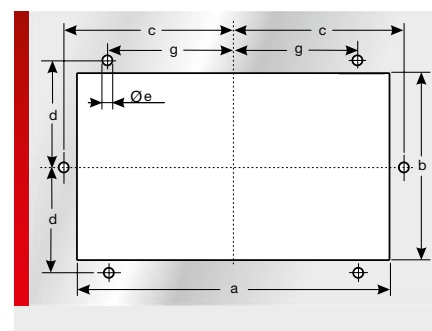
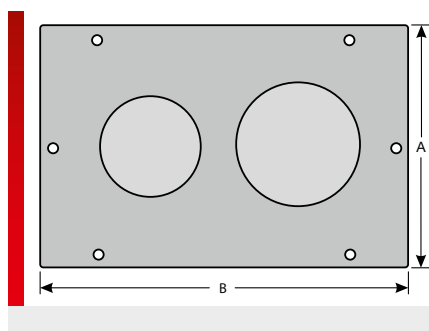
Seal: NBR / EPDM



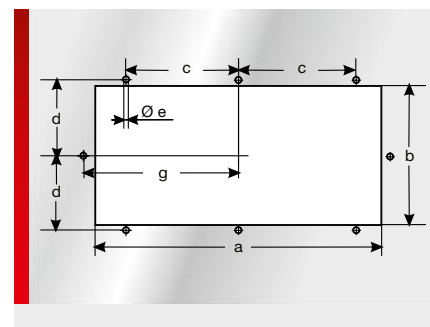
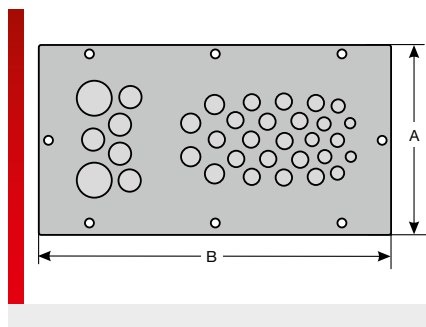
IP 65



Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 120/17 V4A	87663143	Smoothed	17	6x 0.24 – 0.39	1
				4x 0.35 – 0.55	
				3x 0.47 – 0.71	
				4x 0.71 – 0.98	
KDP 120/2 B V4A	87663141	Smoothed	2	2x 1.42 – 1.93	1
KDP 120/2 C V4A	87663142	Smoothed	2	1x 0.71 – 1.42	1
				1x 1.42 – 1.93	
KDP 120/2 V4A	87663140	Smoothed	2	2x 0.71 – 1.42	1
KDP 120/35 V4A	87663144	Smoothed	35	8x 0.14 – 0.26	1
				18x 0.24 – 0.39	
				7x 0.38 – 0.63	
				2x 0.55 – 0.79	
KDP 120/2 ALU	87663001	RAL 7035	2	2x 0.71 – 1.42	1
KDP 120/2 B ALU	87663002	RAL 7035	2	2x 1.42 – 1.93	1
KDP 120/2 C ALU	87663003	RAL 7035	2	1x 0.71 – 1.42	1
				1x 1.42 – 1.93	
KDP 120/17 ALU	87663004	RAL 7035	17	6x 0.24 – 0.39	1
				4x 0.35 – 0.55	
				3x 0.47 – 0.71	
				4x 0.71 – 0.98	
KDP 120/35 ALU	87663005	RAL 7035	35	8x 0.14 – 0.26	1
				18x 0.24 – 0.39	
				7x 0.38 – 0.63	
				2x 0.55 – 0.79	



cablequick® Type 134 (134x254 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel.

The stainless steel version is particularly suitable for application in the food and chemical areas.

Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137

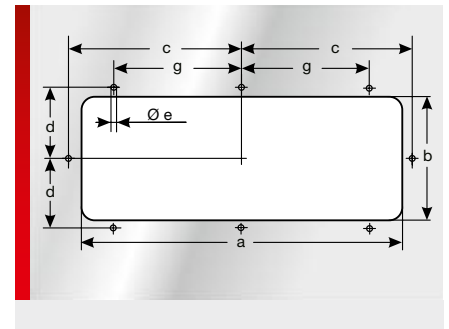
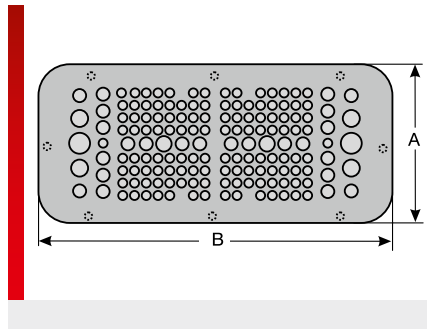
SPECIFICATIONS

 -22 – 194 °F
 Seal: NBR / EPDM
 IP 65

Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 134/34 ALU	87663024	RAL 7035	34	2x 0.12 – 0.2	1
				6x 0.16 – 0.31	
				15x 0.24 – 0.39	
				4x 0.31 – 0.47	
				5x 0.35 – 0.55	
				2x 0.55 – 0.79	

Dimension table

cablequick® Type 149 (149x339 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. KDPs of product group 149 can be fitted directly into the standard cut-outs of Rittal cabinets.

The stainless steel version is particularly suitable for applications in the food and chemical industry. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

V4A : 1.4571
ALU : 3.3535
ST : 137
Rittal cut-out 4

SPECIFICATIONS



-22 – 194 °F



Seal: NBR / EPDM



IP 65



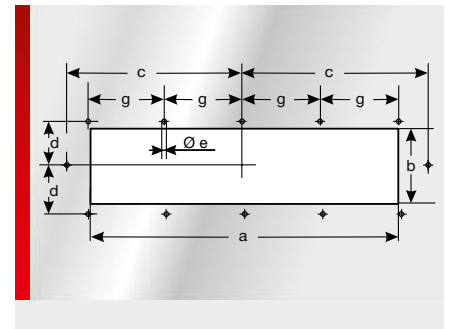
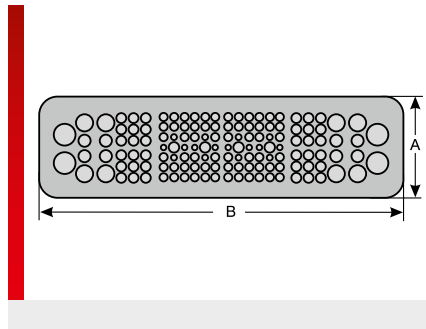
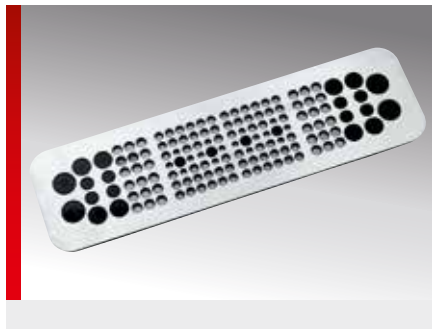
Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 149/158, Alu	87663089	RAL 7035	158	126x 0.14 – 0.24	1
				24x 0.24 – 0.39	
				6x 0.31 – 0.47	
				2x 0.47 – 0.71	
KDP 149/56, Alu	87663097	RAL 7035	56	36x 0.24 – 0.39	1
				8x 0.35 – 0.55	
				8x 0.55 – 0.71	
				4x 0.71 – 0.98	
KDP 149/78 ST ¹⁾	87663771	RAL 7035	78	30x 0.14 – 0.26	1
				40x 0.24 – 0.39	
				4x 0.43 – 0.63	
				2x 0.47 – 0.71	
				2x 0.71 – 0.98	
KDP 149/56 V4A	87663086	Smoothed	56	36x 0.24 – 0.39	1
				8x 0.35 – 0.55	
				8x 0.55 – 0.71	
				4x 0.71 – 0.98	
KDP 149/158 V4A	87663068	Smoothed	158	126x 0.14 – 0.24	1
				24x 0.24 – 0.39	
				6x 0.31 – 0.47	
				2x 0.47 – 0.71	

¹⁾ No UR approval

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

cablequick® Type 149 (149x534 mm)



PRODUCT INFORMATION

Efficient connection technology for terminal boxes, control cabinets for tool-free introduction of actuators, sensors, measuring and control instrumentation, optoelectronic, pneumatic lines and drive technology into a control panel. KDPs of product group 149 can be fitted directly into the standard cut-outs of Rittal cabinets.

The stainless steel version is particularly suitable for application in the food and chemical areas. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 137
- Rittal cut-out 5

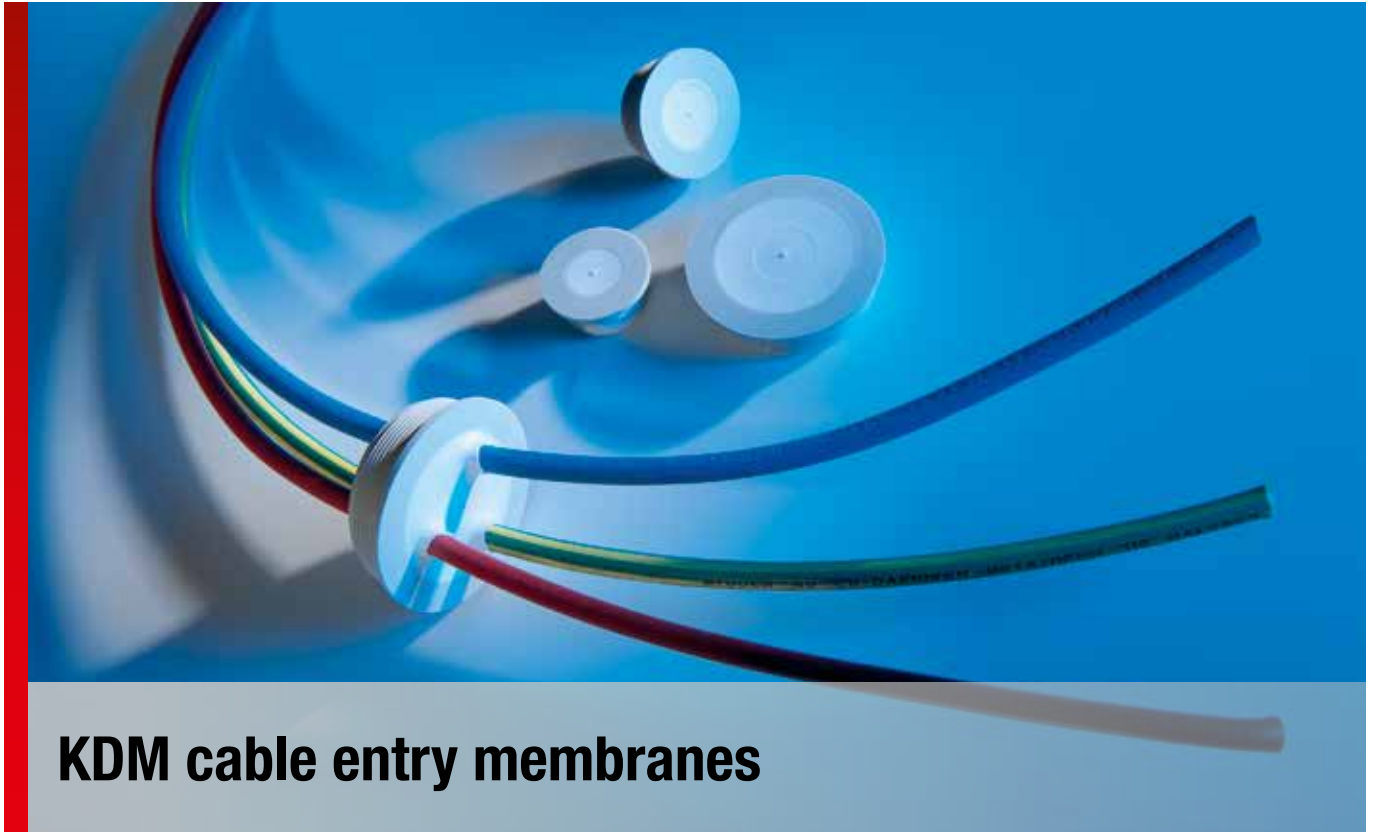
SPECIFICATIONS

	-22 – 194 °F
	Seal: NBR / EPDM
	IP 65
	
	
	
	
	

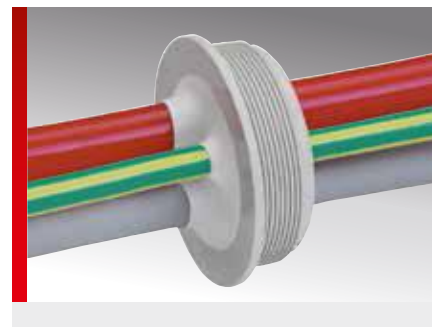
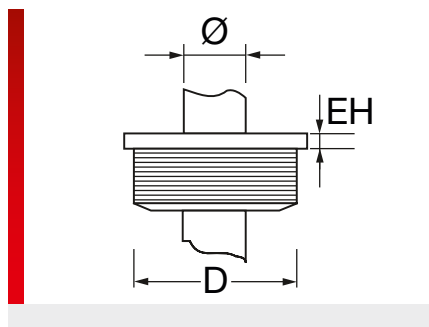
Type	Order No.	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 149/140 ALU	87663095	RAL 7035	140	16x 0.14 – 0.24	1
				64x 0.18 – 0.33	
				36x 0.24 – 0.39	
				4x 0.31 – 0.47	
				8x 0.35 – 0.55	
				8x 0.55 – 0.71	
				4x 0.71 – 0.98	
KDP 149/292 ALU	87663079	RAL 7035	292	250x 0.14 – 0.24	1
				32x 0.24 – 0.39	
				8x 0.31 – 0.47	
				2x 0.47 – 0.71	
KDP 149/46 ALU	87663064	RAL 7035	46	8x 0.24 – 0.39	1
				16x 0.39 – 0.55	
				18x 0.47 – 0.71	
				4x 0.71 – 0.98	
KDP 149/140 V4A	87663088	Smoothed	140	16x 0.14 – 0.24	1
				64x 0.18 – 0.33	
				36x 0.24 – 0.39	
				4x 0.31 – 0.47	
				8x 0.35 – 0.55	
				8x 0.55 – 0.71	
				4x 0.71 – 0.98	
KDP 149/292 V4A	87663066	Smoothed	292	250x 0.14 – 0.24	1
				32x 0.24 – 0.39	
				8x 0.31 – 0.47	
				2x 0.47 – 0.71	

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com



KDM cable entry membrane



PRODUCT INFORMATION

KDM is a cable entry system for cables without plug connectors. The various sizes fit to metrical cut-outs from M16 to M32.

- Easy no-tool push-fit installation
- Extremely high tightness IP66
- Very flexible diameter ranges (more than one cable option)
- Fits on standard cut-outs of M16 to M32

SPECIFICATIONS

 -40.00 – 176 °F

 Enclosure: Polyethylene

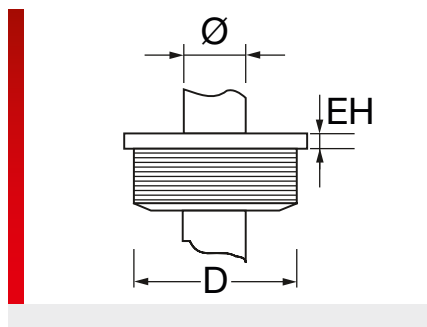
 Seal: TPE

 IP 66 from plate thickness of 0.08 in (2.0 mm). IP 65 for plate thickness of 0.06-0.08 in (1.5-2.0 mm)

 RoHS

Type	Order No.	Color	for Ø inch	EH inch	D inch	Pack qty.
KDM M16	87401010	Gray	0.04 – 0.35	0.06	0.64	50
KDM M20	87401012	Gray	0.04 – 0.51	0.06	0.80	50
KDM M25	87401014	Gray	0.04 – 0.71	0.06	1.00	50
KDM M32	87401016	Gray	0.04 – 0.98	0.06	1.28	50

KDM/F cable entry membrane



PRODUCT INFORMATION

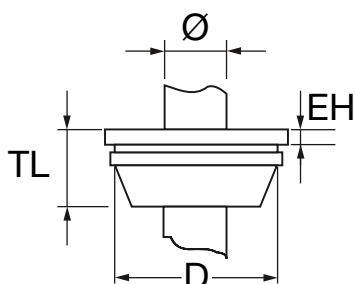
KDM/F is a self-extinguishing cable entry system for cables without plug connectors. The various sizes fit to metrical cut-outs from M16 to M32.

- Easy no-tool push-fit installation
- Extremely high tightness IP66
- Very flexible diameter ranges (more than one cable option)
- Self-extinguishing material per UL94 V2
- Fits on standard cut-outs of M16 to M32

SPECIFICATIONS

Icons representing product specifications: a thermometer for temperature range, a molecular structure for enclosure material, a seal for sealing, a flame for flame resistance, and 'IP' for IP rating.

Type	Order No.	Color	for Ø inch	EH inch	D inch	Pack qty.
KDM/F M16	87401050	Cream	0.04 – 0.35	0.06	0.64	50
KDM/F M20	87401052	Cream	0.04 – 0.51	0.06	0.80	50
KDM/F M25	87401054	Cream	0.04 – 0.71	0.06	1.00	50
KDM/F M32	87401056	Cream	0.04 – 0.98	0.06	1.28	50



- Easy no-tool push-fit installation
- Extremely high tightness IP66/67
- Fits on standard cut-outs of M12 to M50
- High temperature stability

 -40.00 – 230.00 °F
 EPDM
 IP 66 for plate thickness of 1.0–4.0 mm
 IP 67 for plate thickness of 1.0–4.0 mm
 RoHS
 LABS
 UV

Type	Order No.	Color	for Ø inch	EH inch	TL inch	D inch	Pack qty.
KDM/G M12	87401020	Gray	0.16 – 0.28	0.28	0.51	0.48	50
KDM/G M16	87401022	Gray	0.20 – 0.39	0.28	0.71	0.64	50
KDM/G M20	87401024	Gray	0.31 – 0.51	0.28	0.79	0.80	50
KDM/G M25	87401026	Gray	0.43 – 0.67	0.28	0.85	1.00	50
KDM/G M32	87401028	Gray	0.59 – 0.83	0.28	0.98	1.28	50
KDM/G M40	87401030	Gray	0.75 – 1.06	0.31	1.18	1.59	25
KDM/G M50	87401032	Gray	1.10 – 1.38	0.37	1.38	1.99	10



Cable entry systems for railway technology

RAS room integrity set



PRODUCT INFORMATION

The RAS Room integrity set is used in conjunction with the KDL/C or KDL/D and KDL/H cable entry plates. Because the system can be split apart the RAS room integrity system can be completely retrofitted on the inside of the housing. The fire protection mat reacts at temperatures exceeding 160°C (320 °F) by expanding and thereby closing off the opening completely fire resistant.

Special benefits of the RAS room integrity system are:

- Approved for railway technology (EN 45545-2)
- Room integrity (firewall)
- Completely splittable system
- Quick and easy assembly

SPECIFICATIONS

 Frame: Polyamide 6

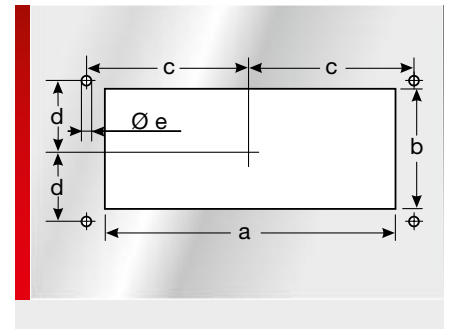
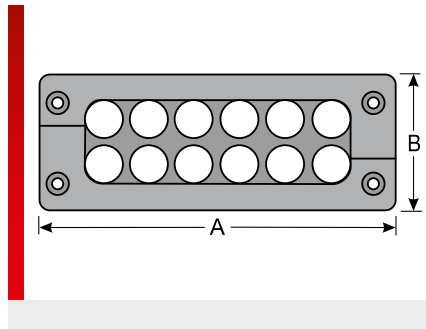


Type	Order No.	Color	Suitable for	Pack qty.
RAS 24/12	87141111	Black	KDL/D 24/12	1
RAS 24/9	87141123	Black	KDL/D 24/9	1
RAS 24/8	87141119	Black	KDL/D 24/8	1
RAS 24/4	87141115	Black	KDL/D 24/4	1
RAS 16/8	87141127	Black	KDL/D 16/8	1
RAS 16/7	87141131	Black	KDL/D 16/7	1
RAS 16/3	87141135	Black	KDL/D 16/3	1
RAS 10/6	87141137	Black	KDL/D 10/6	1
RAS 10/5	87141143	Black	KDL/D 10/5	1
RAS 10/2	87141140	Black	KDL/D 10/2	1

Dimension table

Type	Order No.	Installation height inch	A inch	B inch
RAS 24/12	87141111	0.59	5.83	2.28
RAS 24/9	87141123	0.59	5.83	2.28
RAS 24/8	87141119	0.59	5.83	2.28
RAS 24/4	87141115	0.59	5.83	2.28
RAS 16/8	87141127	0.59	4.76	2.28
RAS 16/7	87141131	0.59	4.76	2.28
RAS 16/3	87141135	0.59	4.76	2.28
RAS 10/6	87141137	0.59	3.98	2.28
RAS 10/5	87141143	0.59	3.98	2.28
RAS 10/2	87141140	0.59	3.98	2.28

KDL/D-EN cable entry system



PRODUCT INFORMATION

The KDL/D-EN cable entry systems is designed for inserting pre-assembled cables. The KDL/D-EN system is a splittable system that enables the quick and simple installation of up to 12 pre-assembled cables with a high packing density in control cabinets and terminal boxes.

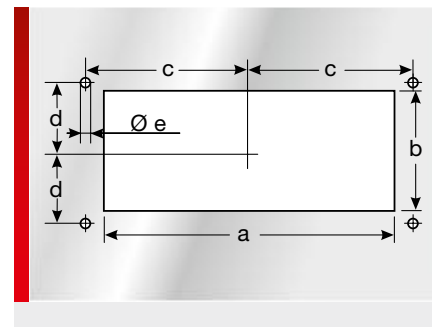
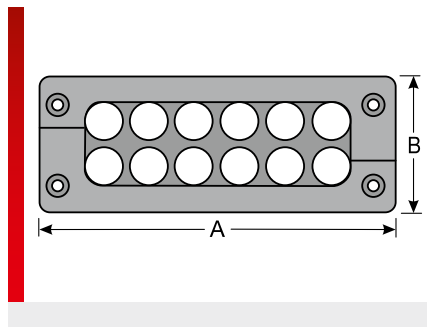
Special benefits of the KDL/D-EN are:

- Approved for railway technology (EN 45545-2)
- Cable infeed without interruption
- Standardized cut-out dimensions
- Easy assembly
- High protection class to IP 65
- Very robust construction
- Integrated strain relief

SPECIFICATIONS

	-22 – 212 °F
	Frame: Polyamide Block: TPE
	V0
	IP 65 (with suitable grommets and cables)
	RoHS
	LABS
	UV
	EU
	Made in Germany

Type	Order No.	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/D-EN 24/12	87141110	Black	12 / 0	1
KDL/D-EN 24/9	87141122	Black	8 / 1	1
KDL/D-EN 24/8	87141118	Black	6 / 2	1
KDL/D-EN 24/4	87141114	Black	0 / 4	1
For standard cut-out size 16				
KDL/D-EN 16/8	87141126	Black	8 / 0	1
KDL/D-EN 16/7	87141130	Black	6 / 1	1
KDL/D-EN 16/3	87141134	Black	0 / 3	1
For standard cut-out size 10				
KDL/D-EN 10/6	87141138	Black	6 / 0	1
KDL/D-EN 10/5	87141142	Black	4 / 1	1
KDL/D-EN 10/2	87141139	Black	0 / 2	1
For standard cut-out size 6				
KDL/D-EN 6/4	87141144	Black	4 / 0	1
Special size				
KDL/D-EN 1/6	87141148	Black	6 / 0	1



KDL/H is manufactured in a zinc die-cast process and is designed for feed-through of pre-assembled cables. The KDL/D system is a splittable system that enables the quick and easy installation of up to 48 pre-assembled cables with a high packing density in control cabinets and terminal boxes. Special benefits of the KDL/H are:

- Cable infeed without interruption
- Approved for railway technology (EN 45545-2 / 3x HL3)
- Standardized cut-out dimensions
- Easy assembly
- High protection category to IP 69K (in combination with the proper enclosure)
- Very robust construction
- Integrated strain relief
- Matching grommets: KDT/X-EN

Technical specifications and certifications for the IP6667 module:

- Temperature range: -22 – 212 °F
- Frame: ZN
- Block: TPE
- Frame: Aluminum
- IP 66/67 (with suitable grommets and cables)
- Certifications: RoHS, LARS, UV, EU, Made in Germany

Type	Order No.	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/H-EN 24/12	87141510	Black	12	1

KDT/X-EN cable entry grommets



PRODUCT INFORMATION

For example, in conjunction with the KDL/D-EN and KDL/H-EN cable entry systems, the KDT/X-EN cable entry grommets can be used to easily route pre-assembled cables into and through control cabinets. The grommet is 1-piece and is subsequently positioned around the cable.

- Approved for railway technology (EN 45545-2)

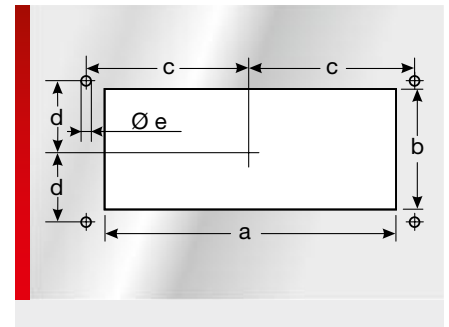
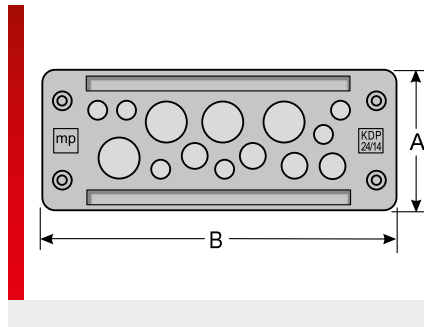
SPECIFICATIONS

	-22 – 212 °F
	TPE
	V0



Type	Order No.	Color	for Ø inch	For opening small / large	No. of openings	Pack qty.
Grommet, small						
KDT/X-EN 02	87141310	Black	0.08 – 0.12	• / -	1	12
KDT/X-EN 03	87141312	Black	0.12 – 0.16	• / -	1	12
KDT/X-EN 04	87141314	Black	0.16 – 0.20	• / -	1	12
KDT/X-EN 05	87141316	Black	0.20 – 0.24	• / -	1	12
KDT/X-EN 06	87141318	Black	0.24 – 0.28	• / -	1	12
KDT/X-EN 07	87141320	Black	0.28 – 0.31	• / -	1	12
KDT/X-EN 08	87141322	Black	0.31 – 0.35	• / -	1	12
KDT/X-EN 09	87141324	Black	0.35 – 0.39	• / -	1	12
KDT/X-EN 10	87141326	Black	0.39 – 0.43	• / -	1	12
KDT/X-EN 11	87141328	Black	0.43 – 0.47	• / -	1	12
BTK/X-EN (dummy grommet)	87141370	Black		• / -		12
Grommet, large						
KDT/X-EN 12	87141330	Black	0.47 – 0.51	- / •	1	4
KDT/X-EN 13	87141332	Black	0.51 – 0.55	- / •	1	4
KDT/X-EN 14	87141334	Black	0.55 – 0.59	- / •	1	4
KDT/X-EN 15	87141336	Black	0.59 – 0.63	- / •	1	4
KDT/X-EN 16	87141338	Black	0.63 – 0.67	- / •	1	4
KDT/X-EN 17	87141340	Black	0.67 – 0.71	- / •	1	4
KDT/X-EN 18	87141342	Black	0.71 – 0.75	- / •	1	4
KDT/X-EN 19	87141344	Black	0.75 – 0.79	- / •	1	4
KDT/X-EN 20	87141346	Black	0.79 – 0.83	- / •	1	4
KDT/X-EN 21	87141348	Black	0.83 – 0.87	- / •	1	4
BTG/X-EN (dummy grommet)	87141366	Black		- / •		4

KDP/EN cable entry plate, plastic



PRODUCT INFORMATION

The KDP/EN 24 cable gland plates are made of modified Polyamide 6 and are cable entry and retaining systems for cables and pneumatic hoses, used in control cabinets or plant construction specifically in the railway industry. Wherever quick assembly, cable-protecting and high packing density are required, the cable insertion system is used. The special benefits of the KDP/EN 24 are:

- Enormous time savings in assembly
- High packing density
- Standardized cut-out dimensions
- Option of labeling
- Protection category IP 65
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

	-22 – 158 °F
	Enclosure: Polyamide 6 Seal: EPDM
	V0
	IP 65

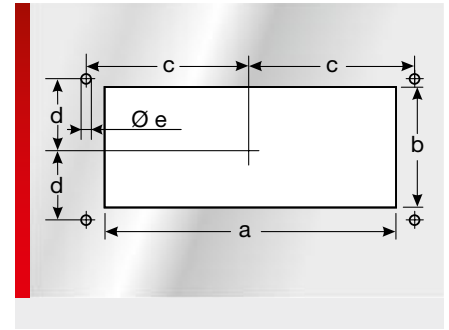
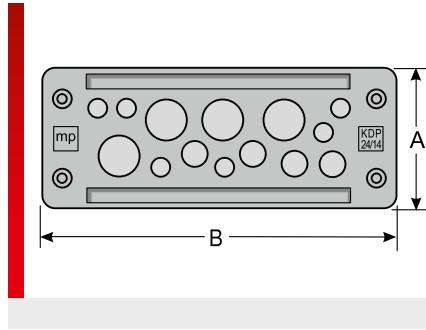


Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/EN 24/11	87301210	Black	11	4x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/EN 24/12	87301220	Black	12	12x 0.31 – 0.47	1
KDP/EN 24/13	87301230	Black	13	2x 0.12 – 0.22	1
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
				1x 0.55 – 0.79	
KDP/EN 24/14	87301240	Black	14	6x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				4x 0.38 – 0.63	
KDP/EN 24/17	87301250	Black	17	17x 0.2 – 0.36	1
KDP/EN 24/17-1	87301251	Black	17	11x 0.12 – 0.26	1
				1x 0.16 – 0.32	
				5x 0.31 – 0.49	
KDP/EN 24/22	87301260	Black	22	16x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				2x 0.31 – 0.49	
KDP/EN 24/23	87301270	Black	23	23x 0.16 – 0.32	1
KDP/EN 24/29	87301280	Black	29	29x 0.12 – 0.26	1
KDP/EN 24/80	87301290	Black	80	78x 0.06 – 0.1	1
				2x 0.1 – 0.2	

The technical drawing illustrates the KDP 24/14 plate in three views:

- Isometric View (Top Left):** Shows the plate's 3D form, highlighting its rectangular shape and the arrangement of circular holes.
- Front View (Top Right):** A detailed 2D projection showing the plate's dimensions and features. It includes:
 - Overall width: B
 - Overall height: A
 - Four circular holes of diameter $\varnothing e$ arranged in a 2x2 pattern.
 - Two smaller circular holes on each long side.
 - Two rectangular slots on the top and bottom edges.
 - Labels "mp" and "KDP 24/14" on the left and right sides, respectively.
- Side View (Bottom Right):** A 2D projection showing the plate's profile and dimensions:
 - Overall length: a
 - Overall height: b
 - Two circular holes of diameter $\varnothing e$ on the top and bottom edges.
 - Two rectangular slots on the top and bottom edges.

KDP/EN-RA plastic cable entry plate, plastic



PRODUCT INFORMATION

The KDP/EN-RA 24 cable gland plates are made of modified Polyamide 6 and are cable entry and retaining systems for cables and pneumatic hoses, used in control cabinets or plant construction specifically in the railway industry. The fire protection mat, enclosed in the supply, reacts at temperatures exceeding 160°C (320 °F) by expanding and thereby closing off the opening completely fire resistant. Wherever quick assembly, cable-protecting and high packing density are required, the cable insertion system is used.

Special benefits of the KDP/EN-RA 24 are:

- Enormous time savings in assembly
- High packing density
- Standardized cut-out dimensions
- Option of labeling
- Protection category IP 65
- Room integrity (firewall)
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

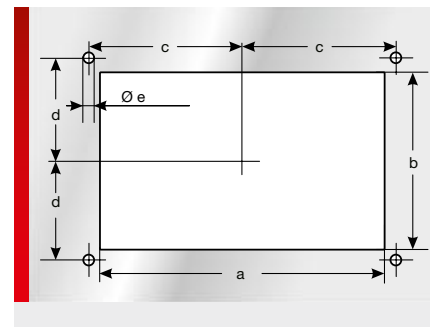
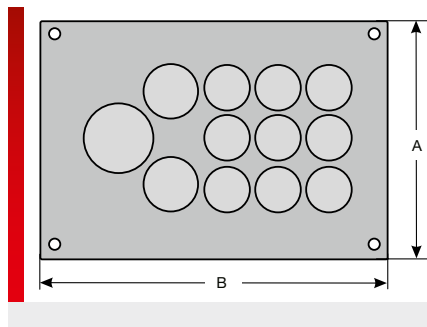
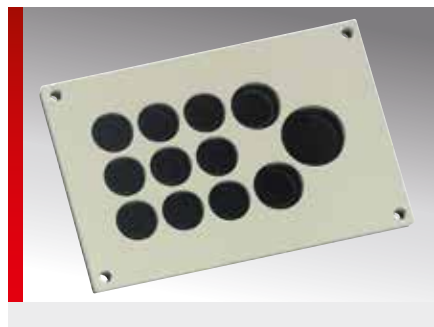
	-22 – 158 °F
	Enclosure: Polyamide 6 Seal: EPDM
	V0
	IP 65



Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/EN-RA 24/11	87301215	Black	11	4x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/EN-RA 24/12	87301225	Black	12	12x 0.31 – 0.47	1
KDP/EN-RA 24/13	87301235	Black	13	2x 0.12 – 0.22	1
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
				1x 0.55 – 0.79	
KDP/EN-RA 24/14	87301245	Black	14	6x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				4x 0.38 – 0.63	
KDP/EN-RA 24/17	87301255	Black	17	17x 0.2 – 0.36	1
KDP/EN-RA 24/17-1	87301256	Black	17	11x 0.12 – 0.26	1
				1x 0.16 – 0.32	
				5x 0.31 – 0.49	
KDP/EN-RA 24/22	87301265	Black	22	16x 0.12 – 0.26	1
				4x 0.2 – 0.36	
				2x 0.31 – 0.49	
KDP/EN-RA 24/23	87301275	Black	23	23x 0.16 – 0.32	1
KDP/EN-RA 24/29	87301285	Black	29	29x 0.12 – 0.26	1
KDP/EN-RA 24/80	87301295	Black	80	78x 0.06 – 0.1	1
				2x 0.1 – 0.2	

Technical drawing of a KDP 24/14 pressure plate. The drawing includes a perspective view of the plate and its base, a top view showing dimensions A, B, and C, and a side view showing dimensions d, e, and a. The top view also shows the 'mp' and 'KDP 24/14' markings.

KDP/EN cable entry plate, metal



PRODUCT INFORMATION

The KDP/EN Metal cable gland plates are cable entry and retaining systems for cables and pneumatic hoses used in control cabinets or plant construction specifically in the railway industry. Wherever quick assembly, cable-protecting and high packing density are required, the cable insertion system is used.

The special benefits of the KDP/EN Metal are: - Other variants are available on request -

- Enormous time savings in assembly
- High packing density
- Protection category IP 65
- Approved for railway technology (EN 45545-2)

Type	Order No.	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
cablequick ® KDP/EN 60/30, Alu	87664201	RAL 7035	30	13x 0.04 – 0.14	1
				12x 0.12 – 0.2	
				2x 0.16 – 0.31	
				1x 0.24 – 0.39	
				2x 0.31 – 0.47	
cablequick ® KDP/EN 120/59, Alu	87664202	RAL 7035	59	22x 0.04 – 0.14	1
				15x 0.14 – 0.26	
				14x 0.24 – 0.39	
				2x 0.31 – 0.47	
				6x 0.63 – 0.94	

Dimension table



EMC solutions

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

- The spring action provides uninterrupted contact pressure with the shield.
- High conductivity
- Excellent discharge of high-frequency noise current.

 Zinc-plated spring steel

Type	Order No.	For shield of Ø inch	Pack qty.
SC-EMV 1.5 - 3	87601002	0.06 – 0.12	25
SC-EMV 3 - 6	87601004	0.12 – 0.24	25
SC-EMV 6 - 8	87601006	0.24 – 0.31	25
SC-EMV 8 - 11	87601008	0.31 – 0.43	25
SC-EMV 11 - 16	87601010	0.43 – 0.63	25
SC-EMV 17 - 22	87601012	0.67 – 0.87	25
SC-EMV 23 - 29	87601014	0.91 – 1.14	25
MSC-EMV 3 - 12	87601020	0.12 – 0.47	25
MSC-EMV 7 - 18	87601022	0.28 – 0.71	25

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

- Easy, no tools required, installation on 1.38 inch (35 mm) top-hat rails
- The spring action provides uninterrupted contact pressure with the shield.
- Excellent discharge of high-frequency noise current.

 Zinc-plated spring steel

Type	Order No.	For shield of Ø inch	Pack qty.
SCF-EMV 1.5 - 3	87601052	0.06 – 0.12	10
SCF-EMV 3-6	87601054	0.12 – 0.24	10
SCF-EMV 6-8	87601056	0.24 – 0.31	10
SCF-EMV 8-11	87601058	0.31 – 0.43	10
SCF-EMV 11-16	87601060	0.43 – 0.63	10
SCF-EMV 17-22	87601062	0.67 – 0.87	10
SCF-EMV 23-29	87601064	0.91 – 1.14	10
SCF-EMV 30-37	87601066	1.18 – 1.46	10
MSCF-EMV 3 - 12	87601070	0.12 – 0.47	10
MSCF-EMV 7 - 18	87601072	0.28 – 0.71	10

- Easy, no tools required, installation on 1.38 inch (35 mm) top-hat rails
- The spring action provides uninterrupted contact pressure with the shield.
- Excellent discharge of high-frequency noise current.
- Optional strain relief with cable ties.

 Zinc-plated spring steel

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

- Assembly without tools on 0.39x0.12 inch (10x3 mm) bar
- Less warehoused parts
- Very compact design
- Strain relief with cable ties (MCSZ-EMV)

 Zinc-plated spring steel

- Assembly without tools on 1.38 inch (35 mm) top-hat rail
- SC-EMV / MSC-EMV shield clips universal support bracket
- Small model range because of the variable population options

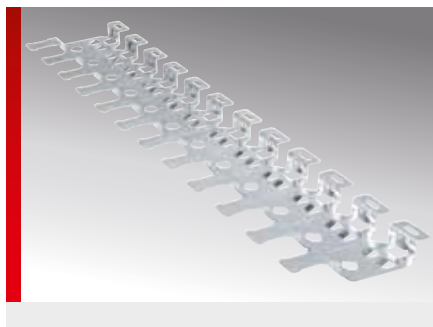
 Zinc-plated spring steel

- Assembly without tools on 0.39x0.12 inch (10x3 mm) top-hat rail
- For SC-EMV / MSC-EMV shield clips
- Smaller model range because of the variable population options
- Less warehoused parts
- Very compact design
- Strain relief with cable ties (SFZ-EMV)

Zinc-plated spring steel

- Direct mounting with M4, M5 or M6 bolt
- SC-EMV / MSC-EMV shield clips universal support bracket
- Smaller model range because of the variable population options
- Very compact design
- Strain relief with cable ties (DFZ-EMV)

 Zinc-plated spring steel



EMC solutions assortment kit



PRODUCT INFORMATION

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

Murrplastik products are characterized by their very easy handling.

Content:

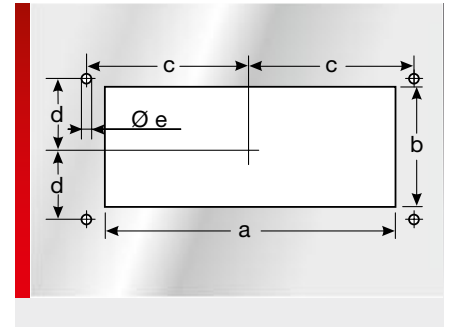
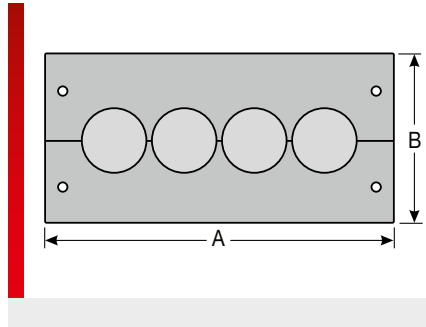
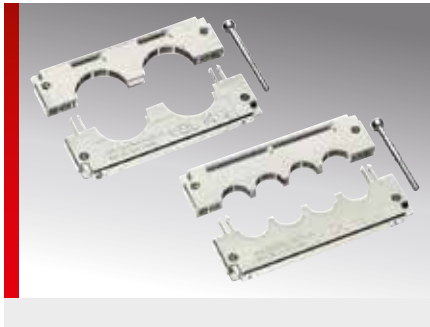
15x SC-EMV 1.5 – 3
15x SC-EMV 3 – 6
15x SC-EMV 6 – 8
15x SC-EMV 8 – 11
5x MSC-EMV 3 – 12
5x MSC-EMV 7 – 18
3x DCSZ-EMV 3 – 6
3x DCSZ-EMV 6 – 8
10x MFZ-EMV
10x DFZ-EMV 4
10x SFZ-EMV 10x3

SPECIFICATIONS



Zinc-plated spring steel

KDL xx/xx-EMC cable entry system



PRODUCT INFORMATION

The cable entry system KDL/EMV is based on the cable entry system KDL. A conductive surface allows cable sheath interference to be discharged onto the control cabinet simply and without additional aids. Field-related interferences are discharged by the metalization.

The KDL 16 /xx-EMV types fit on cut-outs for 16-pin plug connectors, the KDL 24 /xx-EMV types fit on cut-outs for 24-pin plug connectors by Harting or Wieland.

SPECIFICATIONS

	-40.00 – 176 °F
	Conductive coating on Polyamide 6.6 Polyamide 6.6
	V0

RoHS



Made in Germany

Type	Order No.	Color	No. Openings small / large	Pack qty.
For standard cut-out size 16				
KDL 16/2-EMV ¹⁾	87171020	Chrome	0 / 2	1
KDL 16/4-EMV ¹⁾	87171022	Chrome	4 / 0	1
For standard cut-out size 24				
KDL 24/3-EMV ²⁾	87171024	Chrome	1 / 2	1
KDL 24/5-EMV ²⁾	87171026	Chrome	5 / 0	1
Enlarged cut-out for up to 15 pre-assembled cables				
KDL 2/10-EMV ³⁾	87171027	Chrome	10 / 0	1
KDL 3/15-EMV	87980021	Chrome	15 / 0	1
¹⁾ Replacement seal KDL16-EMV 8717102100				
²⁾ Replacement seal KDL 24-EMV 8717102500				
³⁾ Replacement seal KDL 2/10-EMV 87980020				

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
For standard cut-out size 16									
KDL 16/2-EMV ¹⁾	87171020	0.39	4.57	2.28	3.39	1.42	2.03	0.63	0.22
KDL 16/4-EMV ¹⁾	87171022	0.39	4.57	2.28	3.39	1.42	2.03	0.63	0.22
For standard cut-out size 24									
KDL 24/3-EMV ²⁾	87171024	0.39	5.75	2.28	4.41	1.42	2.56	0.63	0.22

[illegible]

KDT/Z-EMV cable entry grommets



PRODUCT INFORMATION

The cable entry grommet KDT/Z-EMV is a grommet adapted to the sheath diameter with a conductive textile tape to discharge interferences to the control cabinet. Strain relief can be provided quickly and easily for cables using cable ties.

SPECIFICATIONS

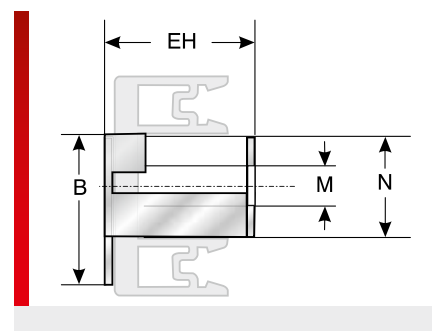
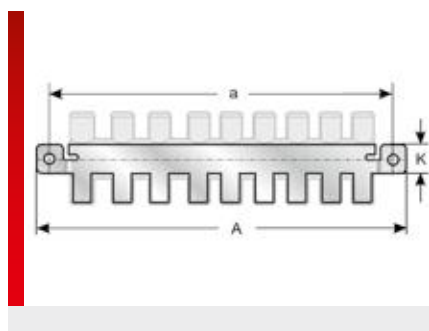
	-40.00 – 176 °F
	Thermoplastic rubber With conductive textile tape
	HB
	
	
	

Type	Order No.	Color	For shield of Ø inch	For opening small / large	No. Openings	Pack qty.
Grommet, small						
KDT/Z-EMV 03	87171812	Black	0.12 – 0.16	• / -	1	10
KDT/Z-EMV 04	87171814	Black	0.16 – 0.2	• / -	1	10
KDT/Z-EMV 05	87171816	Black	0.2 – 0.24	• / -	1	10
KDT/Z-EMV 06	87171818	Black	0.24 – 0.28	• / -	1	10
KDT/Z-EMV 07	87171820	Black	0.28 – 0.31	• / -	1	10
KDT/Z-EMV 08	87171822	Black	0.31 – 0.35	• / -	1	10
KDT/Z-EMV 09	87171824	Black	0.35 – 0.39	• / -	1	10
KDT/Z-EMV 10	87171826	Black	0.39 – 0.43	• / -	1	10
KDT/Z-EMV 11	87171828	Black	0.43 – 0.47	• / -	1	10
KDT/Z-EMV 12	87171830	Black	0.47 – 0.51	• / -	1	10
KDT/Z-EMV 13	87171832	Black	0.51 – 0.55	• / -	1	10
KDT/Z-EMV 14	87171834	Black	0.55 – 0.59	• / -	1	10
KDT/Z-EMV 15	87171836	Black	0.59 – 0.63	• / -	1	10
Grommet, large						
KDT/Z-EMV 16	87172012	Black	0.63 – 0.67	- / •	1	10
KDT/Z-EMV 17	87172014	Black	0.67 – 0.71	- / •	1	10
KDT/Z-EMV 18	87172016	Black	0.71 – 0.75	- / •	1	10
KDT/Z-EMV 19	87172018	Black	0.75 – 0.79	- / •	1	10
KDT/Z-EMV 20	87172020	Black	0.79 – 0.83	- / •	1	10
KDT/Z-EMV 21	87172022	Black	0.83 – 0.87	- / •	1	10
KDT/Z-EMV 22	87172024	Black	0.87 – 0.91	- / •	1	10
KDT/Z-EMV 23	87172026	Black	0.91 – 0.94	- / •	1	10
KDT/Z-EMV 24	87172028	Black	0.94 – 0.98	- / •	1	10
KDT/Z-EMV 25	87172030	Black	0.98 – 1.02	- / •	1	10
KDT/Z-EMV 26	87172032	Black	1.02 – 1.06	- / •	1	10

[illegible]

- 360° shield contact
- Large contact area with short distance
- Easy assembly
- Compact and slim form factor
- Visible contact area
- Stainless steel construction

[illegible]



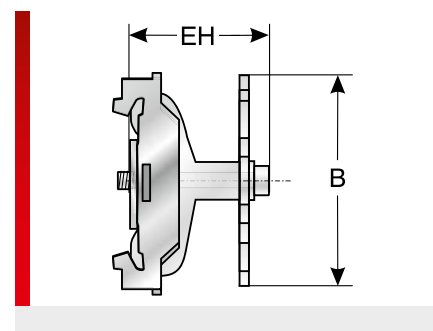
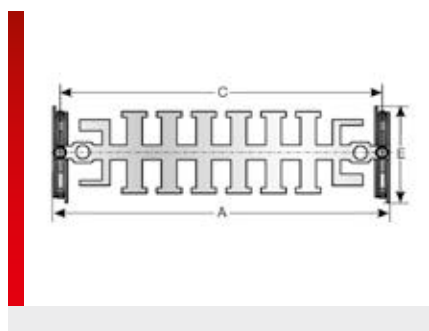
The KAF/K-EMV cable fixing plate consists of a plastic carrier with a fitted V2A stainless steel discharge plate. Integrated clamps ensure quick and safe fastening, both on the top hat or C-rail. The ground contact occurs through the lateral brackets. The use of two connecting points ensures a good discharge, regardless of the position of the cable.

- ## SPECIFICATIONS

 -40.00 – 257 °F
 Short periods 284 °F
 Plate: Polyamide 6.6
 Discharge plate: V2A
 V0

Type	Order No.	Quantity of cables	Installation height inch	A inch	B inch	c inch	d inch	Pack qty.
KAF/K-75-EMV	87201414	5	1.05	4.29	0.91	3.80	0.18	1
KAF/K-140-EMV	87201418	9	1.05	6.81	0.91	6.18	0.18	1

A close-up photograph of a cable joint assembly. Two green insulated cables are connected to a metal plate. The connection is made using copper conductors and black plastic or rubber seals. The assembly is mounted on a metal plate with a bolt and nut. The background is a plain, light-colored surface.



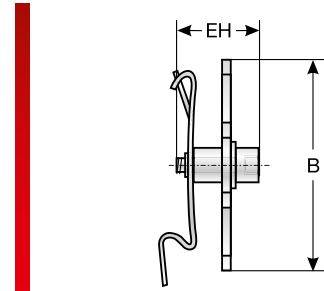
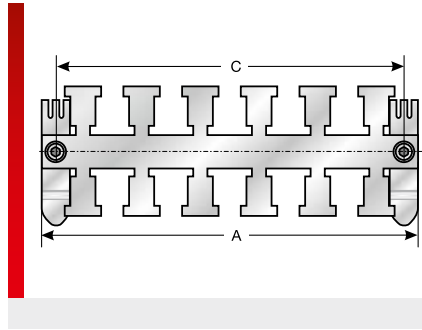
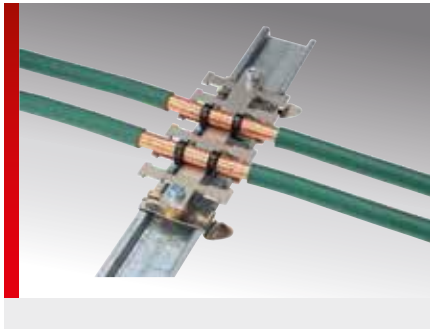
The cable fixing plate KAF/K-EMV consists of a V2A plate for the direct discharge of any interference on the cable sheaths. Stripping the cable in the area of the cable fixing plate and fastening by means of cable ties ensures contact to the cable fixing plate. The ground contact is provided through a special screw

- Fits on a 35 mm top-hat rail (EN50022)

Plate: V2A

[illegible]

KAF/SF cable fixing plate



PRODUCT INFORMATION

The cable fixing plate KAF/SF is suitable for discharging interferences which may occur on cable sheaths. The earth/ground contact is provided through a special snap-on foot for the 35 mm top-hat rail (EN50022). Stripping the cable in the area of the KAF/SF and clamping in the KAF/SF achieves a contact to the KAF/SF. The snap-on clip of the KAF/SF

produces a low-resistance ground contact. The use of two connecting points ensures a good discharge regardless of the position of the cable on the KAF/SF.

- Fits on a 35 mm top-hat rail (EN50022)
- Simply snap on

SPECIFICATIONS

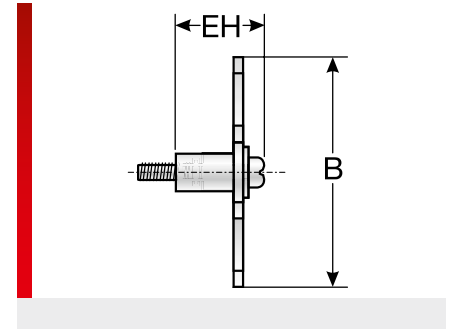
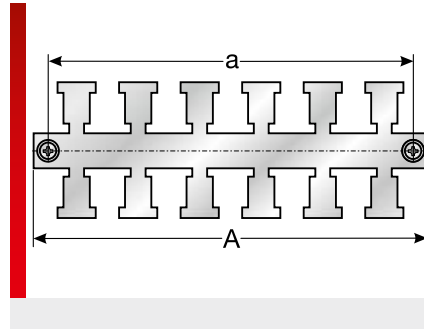
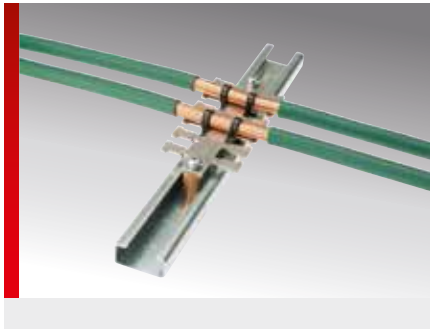


Plate: V2A



Type	Order No.	Quantity of cables	Installation height inch	A inch	B inch	c inch	Pack qty.
KAF/SF-50 EMV	87201240	2	0.79	1.97	1.93	1.48	1
KAF/SF-83 EMV	87201242	4	0.79	3.27	1.93	2.80	1
KAF/SF-116 EMV	87201244	6	0.79	4.57	1.93	4.06	1
KAF/SF-180 EMV	87201248	10	0.79	7.28	1.93	6.73	1

KAF/DC cable fixing plate



PRODUCT INFORMATION

The cable fixing plate KAF/DC is suitable for discharging interferences which may occur on cable sheaths. The ground connection occurs via the fixing screws. The version DC is only suitable for direct installation on a conductive background. Stripping the cable in the area of the cable fixing plate and

fastening by means of cable ties ensures contact to the cable fixing plate. A low-resistance ground contact is achieved by mounting the KAF on the mounting plate. The use of two connecting points ensures a good discharge regardless of the position of the cable on the KAF.

SPECIFICATIONS

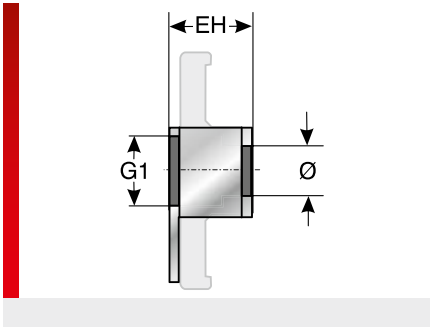
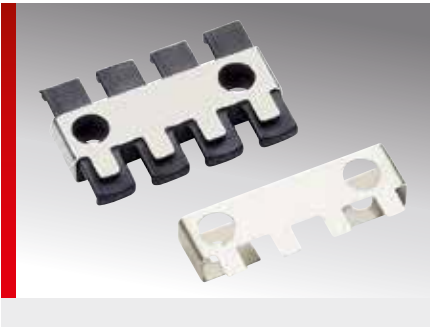


Plate: V2A
Stand: Brass



Type	Order No.	Quantity of cables	Installation height inch	A inch	B inch	c inch	Pack qty.
KAF/DC-50 EMV	87201250	2	1.04	1.97	1.93	1.48	1
KAF/DC-83 EMV	87201252	4	1.04	3.27	1.93	2.76	1
KAF/DC-116 EMV	87201254	6	1.04	4.57	1.93	4.06	1
KAF/DC-180 EMV	87201258	10	1.04	7.09	1.93	6.69	1

ZL xx-AB strain relief



PRODUCT INFORMATION

In conjunction with the ZL strain relief rail, the ZL-AB discharge plate is suitable for discharging interferences which may occur on cable sheaths.
ZL strain relief not included in delivery.
Please order separately.

SPECIFICATIONS



Stainless steel 1.4301





Type	Order No.	Installation height inch	A inch	B inch	c inch	e inch	Pack qty.
ZL 39-AB/EMV ¹⁾	87701034	0.47	1.61	0.98	0.77	0.26	1
ZL 60-AB/EMV ¹⁾	87701036	0.47	2.46	0.98	1.71	0.26	1
ZL 87-AB/EMV ¹⁾	87701040	0.47	3.50	0.98	2.68	0.26	1
ZL 140-AB/EMV ¹⁾	87701046	0.47	5.61	0.98	4.76	0.26	1

¹⁾ The corresponding ZL strain relief plate is required for the discharge plate.

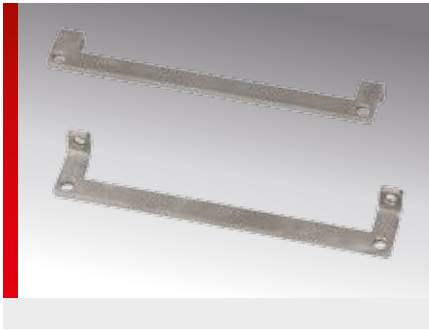
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The discharge plate is installed on the inside of the control cabinet, directly to the fixing points of the KDL/E cable entry system.

 Stainless steel 1.4310

Type	Order No.	No. Discharges	Suitable for	Pack qty.
KDL/N-AB 16/5-EMV OT	87252420	3	KDL/E 16/5 upper part	1
KDL/N-AB 16/5-EMV UT	87252422	2	KDL/E 16/5 lower part	1
KDL/N-AB 16/8-EMV	87252424	4	KDL/E 16/8 upper and lower part	1
KDL/N-AB 24/4-EMV OT	87252426	3	KDL/E 24/4 upper part	1
KDL/N-AB 24/4-EMV UT	87252428	1	KDL/E 24/4 lower part	1
KDL/N-AB 24/7-EMV OT	87252430	4	KDL/E 24/7 upper part	1
KDL/N-AB 24/7-EMV UT	87252432	3	KDL/E 24/7 lower part	1
KDL/N-AB 24/10-EMV OT	87252434	5	KDL/E 24/10 upper part	1
KDL/N-AB 24/10-EMV UT	87252436	5	KDL/E 24/10 lower part	1

AB-Clip 24-EMV discharge plate



PRODUCT INFORMATION

The discharge plate AB-Clip 24 - EMV is made of 1.4301 (V2A) stainless steel. It can be used in conjunction with 24-pin cable entry strips (KDL/x) and cable gland plates (KDP/x) to eliminate interference that can occur on the cable shields. The discharge plate should be installed on the inside of the control cabinet, directly to the fixing points of the cable entry system. The deflector plate accommodates the EMC clip systems, which can be mounted on a 0.39x0.12 inch (10x3 mm) busbar.

The special advantages of the AB-Clip 24 - EMV discharge plate are:

- High stability
- Easy installation of the screen clip system
- Compact design
- RoHS compliant

SPECIFICATIONS



Stainless steel 1.4310

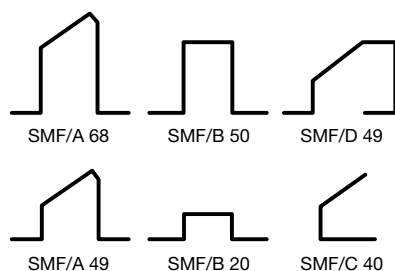
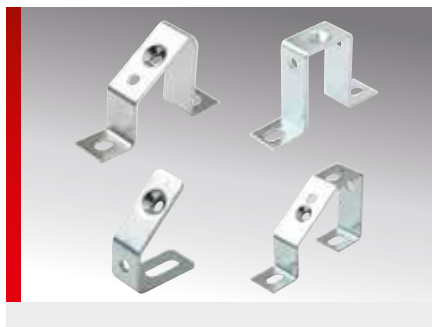


The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

SPECIFICATIONS



SMF busbar mounting foot



PRODUCT INFORMATION

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

Murrplastik products are characterized by their very easy handling.

SPECIFICATIONS



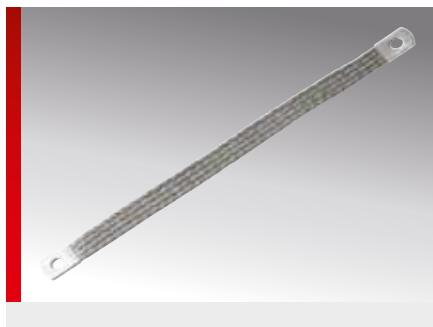
Galvanized sheet steel



RoHS

[illegible]

FBE ribbon earthing cable



PRODUCT INFORMATION

The steering components in today's machine, plant and control cabinet installations are becoming more and more complex. A good EMC concept therefore gains increasing importance. Murrplastik earthing and cable shielding products are designed to meet the demands for low bleeder resistance at high frequencies.

Murrplastik products are characterized by their very easy handling.

- Excellent discharge of high-frequency noise current.
- Very small transient resistance

SPECIFICATIONS



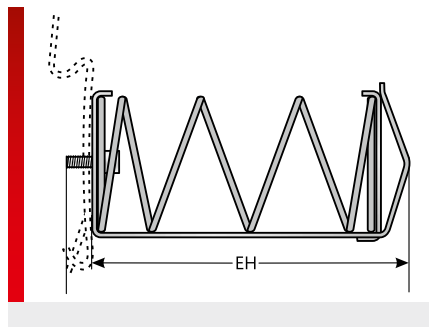
Copper



RoHS

[illegible]

SK shielding clamp



PRODUCT INFORMATION

The shielding clamp may be used where the shield of individual cables must be connected with the ground potential. The SK can be either screwed down on the mounting plate or snapped on to the 1.38 inch (35 mm) top-hat rail (EN 50022) by means of a mounting foot. SK mounting foot not included in delivery. Please order separately.

SPECIFICATIONS

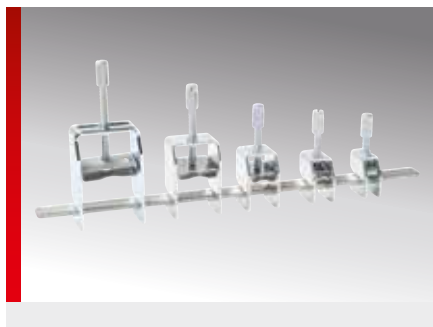


Galvanized sheet steel



RoHS

Type	Order No.	Fastening	For shield of Ø inch	A inch	B inch	C inch	Pack qty.
SK 3 – 8	87201060	M4x0,7	0.12 – 0.31	0.71	0.53	1.02	10
SK 4 – 13.5	87201062	M4x0,7	0.16 – 0.53	0.79	0.79	1.28	10
SK 10 – 20	87201064	M4x0,7	0.39 – 0.79	1.02	0.98	1.57	10
SK 15 – 32	87201066	M4x0,7	0.59 – 1.26	1.28	1.32	2.52	10
SK mounting foot	87201070			0.51	1.97		10



SPECIFICATIONS



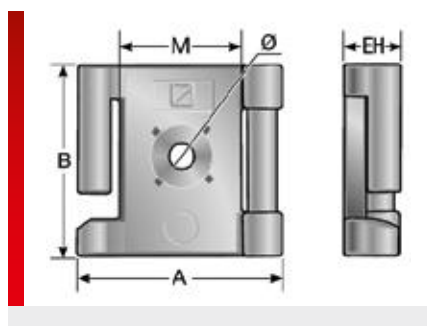
Galvanized sheet steel

[illegible]



Strain relief / cable fixing plate

ZL-fix strain relief



PRODUCT INFORMATION

The strain relief ZL-fix may be used wherever cables, hoses, cords, wires or conduits must be relieved or routed in a way that is secure, easy and cost-effective. The strain relief ZL-fix is available in two versions, either for direct screw fastening (flat-head screw M5, not included in delivery) or for fastening on a profile with 0.39 inch (10 mm) groove width (integrated nut strap).

- Do not constrict sensitive cables such as fiber optic cables or pneumatic hoses
- No-tools fastening Velcro® system can be opened and closed infinitely
- Very simple handling
- Variable installation positions

SPECIFICATIONS



-22 – 176 °F



Tape: Coated polyamide
Base: Polyamide 6.6



RoHS



HF



LABS



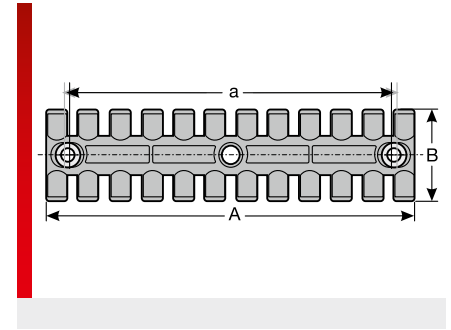
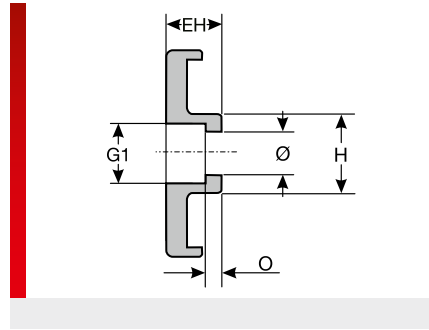
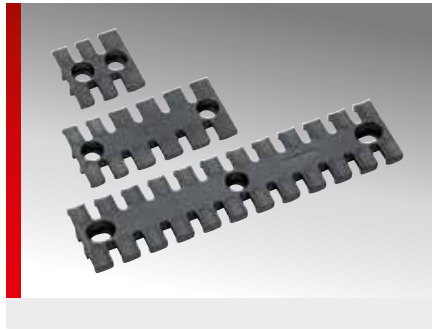
UV

Type	Order No.	Color	Length of Velcro strip inch	Section groove Min. – max. inch	Pack qty.
Profile assembly					
ZL-fix P-15	87705018	Black	3.62	0.39 – 0.43	10
ZL-fix P-25	87705020	Black	6.73	0.39 – 0.43	10
ZL-fix P8-25	87705030	Black	6.69	0.31 – 0.35	10
ZL-fix P-35	87705022	Black	6.73	0.39 – 0.43	10
Screw assembly					
ZL-fix W-15	87705008	Black	3.62		10
ZL-fix W-25	87705010	Black	6.73		10
ZL-fix W-25-400	87705015	Black	15.75		10
ZL-fix W-35	87705012	Black	6.73		10

Dimension table

Type	Order No.	A inch	B inch	EH inch	M inch	Ø inch
Profile assembly						
ZL-fix P-15	87705018	1.18	1.34	0.42	0.59	0.20
ZL-fix P-25	87705020	1.46	1.34	0.42	0.98	0.20
ZL-fix P8-25	87705030	0.98	1.34	0.42		0.20
ZL-fix P-35	87705022	1.77	1.34	0.42	1.38	0.20
Screw assembly						
ZL-fix W-15	87705008	1.54	1.34	0.42	0.59	0.20
ZL-fix W-25	87705010	1.46	1.34	0.42	0.98	0.20
ZL-fix W-25-400	87705015	1.46	1.34	0.42	0.98	0.20
ZL-fix W-35	87705012	1.77	1.34	0.42	1.38	0.20

ZL strain relief



PRODUCT INFORMATION

The ZL strain relief plate may be used wherever the strain of cables, hoses, cords, wires or conduits must be relieved or they are to be routed in a secure, easy and cost-effective way. The insertion of the ELB bushing stops the cold extrusion characteristic of plastic from affecting the secure fixing of the plate. The DH spacer sleeve is needed for two-tier mounting.

- Approved for railway technology (EN 45545-2)

SPECIFICATIONS



-40.00 – 257 °F



Plate: Polyamide 6.6



V0



RoHS



HF



LABS



UV



EU

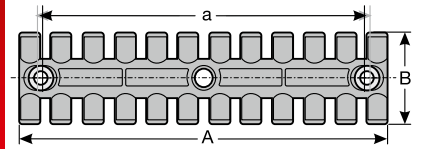
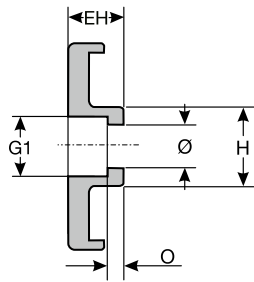


Made in Germany

Type	Order No.	Color	No. Cables	Pack qty.
ZL 04	87701010	Black	12	1
ZL 05	87701012	Black	15	1
ZL 39	87701014	Black	3	1
ZL 60	87701016	Black	4	1
ZL 70	87701017	Black	5	1
ZL 80	87701015	Black	6	1
ZL 87/68	87701018	Black	6	1
ZL 87/50	87701019	Black	6	1
ZL 103	87701020	Black	7	1
ZL 121	87701022	Black	8	1
ZL 140	87701024	Black	9	1
ZL 180/6	87701026	Black	12	1
ZL 180/8	87701027	Black	12	1

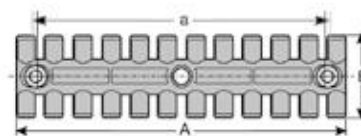
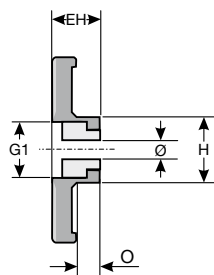
Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
ZL 04	87701010	3.74	2.93	1.38	0.36	0.33		0.12	0.22
ZL 05	87701012	4.69	4.25	1.38	0.36	0.33		0.12	0.22
ZL 39	87701014	1.52	0.77	1.57	0.39	0.47	0.55	0.12	0.35
ZL 60	87701016	2.34	1.71	1.57	0.39	0.47	0.55	0.12	0.35
ZL 70	87701017	2.74	1.71	1.57	0.39	0.47	0.55	0.12	0.35
ZL 80	87701015	3.13	2.68	1.57	0.39	0.47	0.55	0.12	0.35
ZL 87/68	87701018	3.41	2.68	1.57	0.39	0.47	0.55	0.12	0.35
ZL 87/50	87701019	3.41	1.97	1.57	0.39	0.47	0.55	0.12	0.35
ZL 103	87701020	4.04	3.31	1.57	0.39	0.47	0.55	0.12	0.35



Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
ZL 121	87701022	4.76	4.04	1.57	0.39	0.47	0.55	0.12	0.35
ZL 140	87701024	5.49	4.76	1.57	0.39	0.47	0.55	0.12	0.35
ZL 180/6	87701026	7.09	6.18	1.65	0.45	0.47	0.63	0.12	0.35
ZL 180/8	87701027	7.09	6.18	1.65	0.45	0.53	0.63	0.12	0.43

Type ZL-AH strain relief



PRODUCT INFORMATION

The ZL-AH strain relief plates are based on the ZL strain relief plate. By inserting the aluminum grommets, the ZL strain relief plate is free of fastening forces.

- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

	-40.00 – 257 °F
	Plate: Polyamide 6.6 Insert bushing: Aluminum
	V0

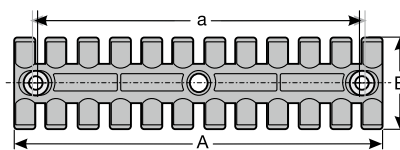
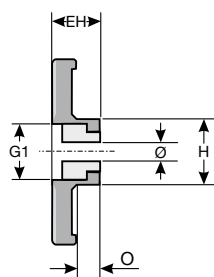


Type	Order No.	Color	No. Cables	Pack qty.
With aluminum grommets, assembly with M5 screws				
ZL-AH 39	87701230	Black	3	1
ZL-AH 60	87701232	Black	4	1
ZL-AH 87	87701234	Black	6	1
ZL-AH 103	87701236	Black	7	1
ZL-AH 121	87701238	Black	8	1
ZL-AH 140	87701240	Black	9	1
ZL-AH 180	87701242	Black	12	1

Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
With aluminum grommets, assembly with M5 screws									
ZL-AH 39	87701230	1.52	0.77	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 60	87701232	2.34	1.71	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 87	87701234	3.41	2.68	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 103	87701236	4.04	3.31	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 121	87701238	4.76	4.04	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 140	87701240	5.49	4.76	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 180	87701242	7.09	6.18	1.65	0.45	0.47	0.63	0.28	0.22

Type ZL-MH strain relief



PRODUCT INFORMATION

The ZL-MH strain relief plates are based on the ZL strain relief plate. By inserting the brass grommets, the ZL strain relief plate is free of fastening forces.

Approved for railway technology (EN 45545-2)

SPECIFICATIONS

	-40.00 – 257 °F
	Plate: Polyamide 6.6 Insert bushing: Brass
	V0

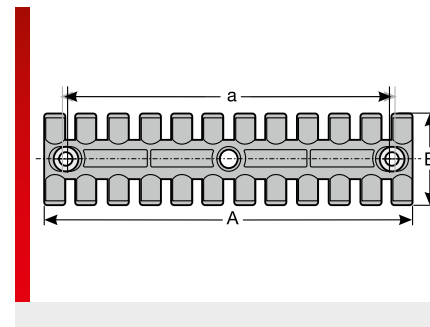
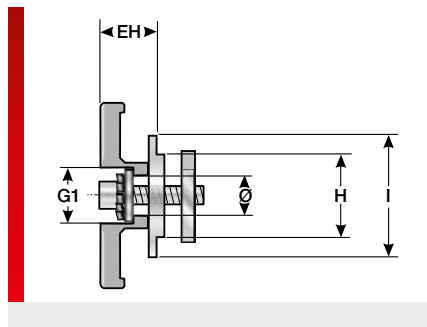


Type	Order No.	Color	No. Cables	Pack qty.
With brass grommets, assembly with M5 screws				
ZL-MH 39	87701210	Black	3	1
ZL-MH 39, VE 50	87701211	Black	3	50
ZL-MH 60	87701212	Black	4	1
ZL-MH 87	87701214	Black	6	1
ZL-MH 103	87701216	Black	7	1
ZL-MH 121	87701218	Black	8	1
ZL-MH 140	87701220	Black	9	1
ZL-MH 140, VE 50	87701221	Black	9	50
ZL-MH 180	87701222	Black	12	1
with brass grommets, assembly with M6 screws				
ZL-MH 39/6	87701270	Black	3	1
ZL-MH 60/6	87701272	Black	4	1
ZL-MH 60, VE 50	87701213	Black	4	50
ZL-MH 70/6	87701274	Black	5	1
ZL-MH 87/6	87701278	Black	6	1
ZL-MH 87, VE 50	87701215	Black	6	50
ZL-MH 103/6	87701282	Black	7	1
ZL-MH 121/6	87701284	Black	8	1
ZL-MH 140/6	87701286	Black	9	1
ZL-MH 180/6	87701288	Black	12	1

Dimension table

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

ZL-AM strain relief



PRODUCT INFORMATION

The ZL-AM strain relief plates are based on the ZL strain relief plate. The embedded brass discs hinder the cold flow deformation properties of the plastic under heavy and permanent vibration, thereby preventing the screwed connection from loosening by itself. Tenon nuts and bolts enable simple assembly on C-rails.

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Micro-encapsulated PreCOTE thread coating serves as an added locking element
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS



-40.00 – 257 °F



Polyamide 6.6



V0

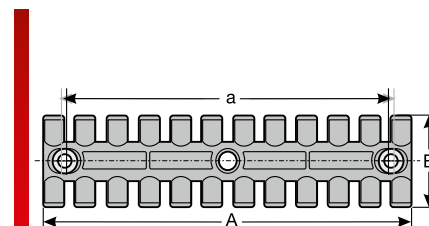
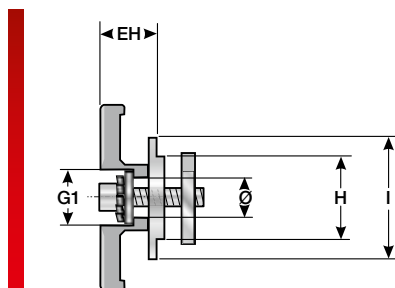


Type	Order No.	Color	No. Cables	Pack qty.
For 0.63 inch (16 mm) C-rail slot Interior width 0.87–1.06 inch (22–27 mm) Brass disc Stainless steel screw 1.4301 with UNC thread Stainless steel slot nut 1.4301				
ZL-AM 39	87702210	Black	3	1
ZL-AM 60	87702212	Black	4	1
ZL-AM 87	87702214	Black	6	1
ZL-AM 103	87702216	Black	7	1
ZL-AM 121	87702218	Black	8	1
ZL-AM 140	87702220	Black	9	1
ZL-AM 180	87702222	Black	12	1

Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 0.63 inch (16 mm) C-rail slot Interior width 0.87–1.06 inch (22–27 mm) Brass disc Stainless steel screw 1.4301 with UNC thread Stainless steel slot nut 1.4301									
ZL-AM 39	87702210	1.52	0.77	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 60	87702212	2.34	1.71	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 87	87702214	3.41	2.68	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 103	87702216	4.04	3.31	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 121	87702218	4.76	4.04	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 140	87702220	5.49	4.76	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 180	87702222	7.09	6.18	1.65	0.53	0.47	0.63	1.02	0.20

ZL-SW strain relief



PRODUCT INFORMATION

The ZL-SW strain relief plates are based on the ZL strain relief plate. The embedded brass discs hinder the cold flow deformation properties of the plastic under heavy and permanent vibration, thereby preventing the screwed connection from loosening by itself. Tenon nuts and bolts enable simple assembly on C-rails.

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Micro-encapsulated PreCOTE thread coating serves as an added locking element
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

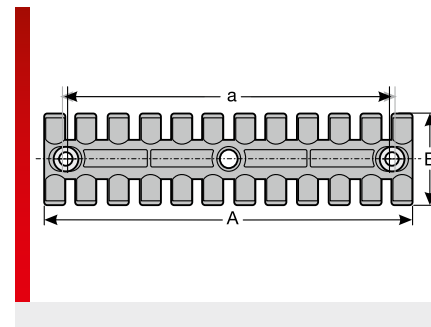
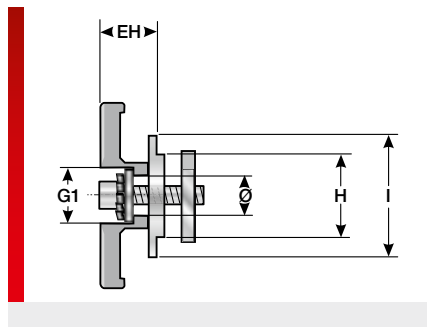
	-40.00 – 257 °F				
	Polyamide 6.6				
	V0				
					

Type	Order No.	Color	No. Cables	Pack qty.
For 0.47 inch (12 mm) C-rail slot Interior width 1.06 inch (27 mm) Brass disc 1.4301 stainless steel screw with metric thread Stainless steel slot nut 1.4301				
ZL-SW 39	87702410	Black	3	1
ZL-SW 60	87702412	Black	4	1
ZL-SW 87	87702414	Black	6	1
ZL-SW 103	87702416	Black	7	1
ZL-SW 121	87702418	Black	8	1
ZL-SW 140	87702420	Black	9	1
ZL-SW 180/6	87702422	Black	12	1

Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 0.47 inch (12 mm) C-rail slot Interior width 1.06 inch (27 mm) Brass disc 1.4301 stainless steel screw with metric thread Stainless steel slot nut 1.4301									
ZL-SW 39	87702410	1.52	0.77	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 60	87702412	2.34	1.71	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 87	87702414	3.41	2.68	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 103	87702416	4.04	3.31	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 121	87702418	4.76	4.04	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 140	87702420	5.49	4.76	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 180/6	87702422	7.09	6.18	1.65	0.53	0.47	0.46	0.71	0.24

ZL-C strain relief



PRODUCT INFORMATION

The ZL-C strain relief plates are based on the ZL strain relief plate. The embedded brass discs hinder the cold flow deformation properties of the plastic under heavy and permanent vibration, thereby preventing the screwed connection from loosening by itself. Tenon nuts and bolts enable simple assembly on C-rails.

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

	-40.00 – 257 °F				
	Polyamide 6.6				
	V0				
					

Type	Order No.	Color	No. Cables	Pack qty.
For 11 mm C-rail Slot / interior width 21 mm Brass disc Steel screw with metric thread Steel slot nut				
ZL-C 39	87702810	Black	3	1
ZL-C 60	87702812	Black	4	1
ZL-C 80	87702814	Black	6	1
ZL-C 87	87702816	Black	6	1
ZL-C 103	87702818	Black	7	1
ZL-C 121	87702820	Black	8	1
ZL-C 140	87702822	Black	9	1
ZL-C 180/6	87702824	Black	12	1

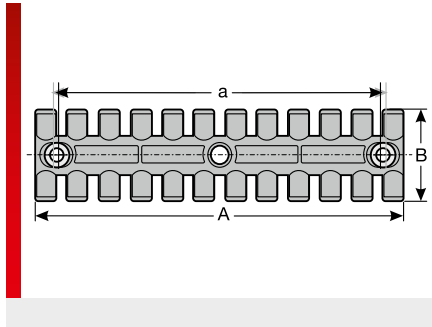
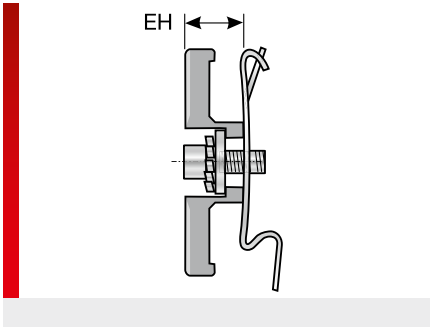
Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 11 mm C-rail Slot / interior width 21 mm Brass disc Steel screw with metric thread Steel slot nut									
ZL-C 39	87702810	1.52	0.77	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 60	87702812	2.34	1.71	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 80	87702814	3.13	2.68	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 87	87702816	3.41	2.68	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 103	87702818	4.04	3.31	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 121	87702820	4.76	4.04	1.57	0.47	0.47	0.42	0.71	0.35

ZL-C strain relief (Continued...)

[illegible]

ZL-MF strain relief



PRODUCT INFORMATION

The strain relief plate ZL-MF is based on the strain relief plate ZL. The pre-installed mounting feet enable simple, tool-free assembly on a 1.38 inch (35 mm) top-hat rail (EN 50022). The feet are made of galvanized steel plate.

- Quick and easy to assemble and disassemble without the need for tools.
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Approved for railway technology (EN 45545-2)

SPECIFICATIONS

 -40.00 – 257 °F

 Polyamide 6.6

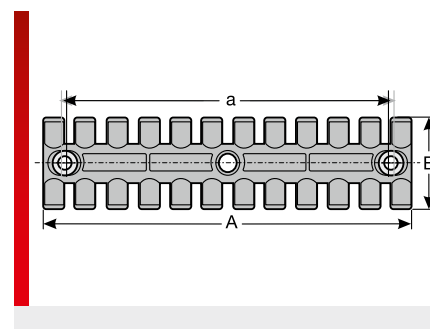
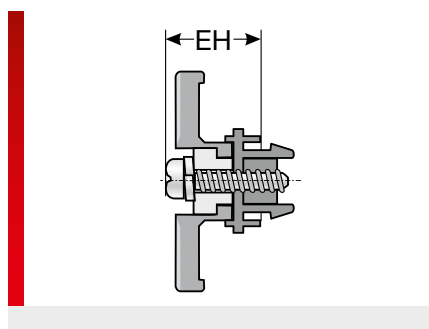
 V0

Type	Order No.	Color	No. Cables	Pack qty.
ZL-MF 39	87702610	Black	3	1
ZL-MF 70	87702614	Black	5	1
ZL-MF 140	87702622	Black	9	1

Dimension table

Type	Order No.	A inch	a inch	B inch	EH inch
ZL-MF 39	87702610	1.52	0.77	1.57	0.39
ZL-MF 70	87702614	2.74	1.71	1.57	0.39
ZL-MF 140	87702622	5.49	4.76	1.57	0.39



Technical specifications and certifications displayed on a light gray background:

- Temperature range: -40.00 – 257 °F (indicated by a thermometer icon)
- Material: Polyamide 6.6 (indicated by a molecular structure icon)
- Version: V0 (indicated by a flame icon)
- Certifications: RoHS, HF, LABS, UV, EU, and GL (indicated by their respective icons)
- Origin: Made in Germany (indicated by a German flag icon)

Type	Order No.	Color	No. Cables	Pack qty.
ZLF 39	87701410	Black	3	10
ZLF 60	87701412	Black	4	10
ZLF 87	87701414	Black	6	10
ZLF 103	87701416	Black	7	10
ZLF 121	87701418	Black	8	10
ZLF 140	87701420	Black	9	10

Type	Order No.	A inch	a inch	B inch	EH inch
ZLF 39	87701410	1.52	0.77	1.57	0.67
ZLF 60	87701412	2.34	1.71	1.57	0.67
ZLF 87	87701414	3.41	2.68	1.57	0.67
ZLF 103	87701416	4.04	3.31	1.57	0.67
ZLF 121	87701418	4.76	4.04	1.57	0.67
ZLF 140	87701420	5.49	4.76	1.57	0.67

The KDZL 24 strain relief modules is manufactured from thermoplastic rubber. When combined with KDP/F, the KDZL 24 is a strain relief for cables and pneumatic hoses such as those used in control cabinets, plant or machine construction. Strain relief is achieved e.g. by installing cable ties. Wherever quick assembly, cable-protection and high packing density are required, including good strain relief, the strain relief module is the solution.

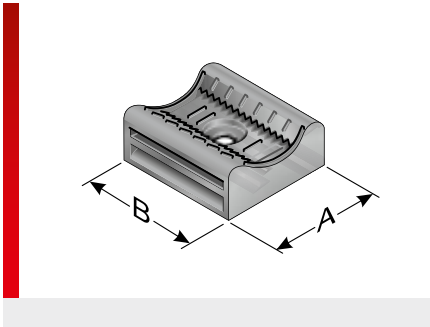
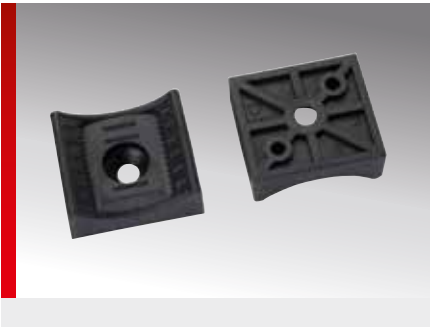
- Enormous time savings in assembly
- High packing density
- Standard cut-out dimensions
- Large wire diameter ranges
- Easy assembly
- High degree of strain relief

 -22 – 212 °F
 TPE
 HB

 RoHS
 HF
 LABS
 UV
 Made in Germany

[illegible]

KS-fix strain relief



PRODUCT INFORMATION

The Velcro base serves as installation aid for carefully fixing wires, cables and hoses. The base can be equipped at various lengths without tools by just using our Velcro strips. The Velcro base is designed for direct mounting, using countersunk screws.

- Velcro strips at variable lengths
- Gentle wire fixing without constrictions
- Reusable
- Cable bundles can easily be expanded
- Easy handling
- Reduced risk of injury compared to trimmed cable ties

SPECIFICATIONS

	Polyamide 6.6
	V0
	

Type	Order No.	Color	Suitable for	Pack qty.
KS-fix 4-20 ¹⁾	87705050	Black	KB-fix 10	10
KS-fix 8-35 ¹⁾	87705060	Black	KB-fix 20	10
KS-fix 10-60 ¹⁾	87705070	Black	KB-fix 20	10
KS-fix 20-100 ²⁾	87705080	Black	KB-fix 30	10

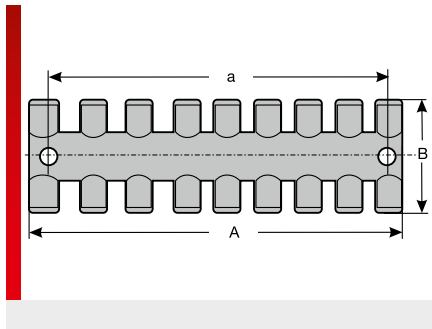
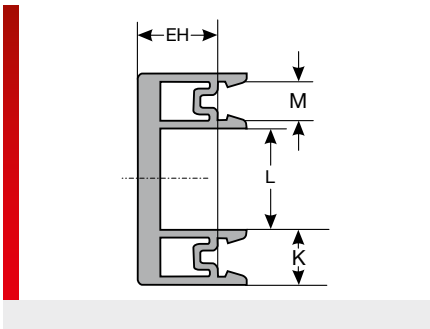
¹⁾ Mounted with M5 screws

²⁾ Mounted with M6 screws

Dimension table

Type	Order No.	A inch	B inch
KS-fix 4-20 ¹⁾	87705050	0.75	0.59
KS-fix 8-35 ¹⁾	87705060	1.14	1.02
KS-fix 10-60 ¹⁾	87705070	1.42	1.02
KS-fix 20-100 ²⁾	87705080	2.44	1.50

KAF cable fixing plate



PRODUCT INFORMATION

The cable fixing plate KAF is suitable for simultaneously holding and relieving the strain of cables in the control cabinet. Designed to be mounted on a standard 1.38 inch (35 mm) top-hat rail (EN 50022; Niedax 2934;2936) or on a C-rail (Niedax 2970;2971). Installation is a simple snap-in process.

- Approved for railway technology (EN 45545-2)

SPECIFICATIONS


-40.00 – 257 °F


Polyamide 6.6


V0



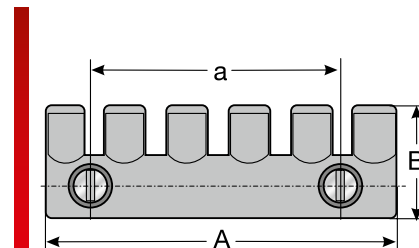
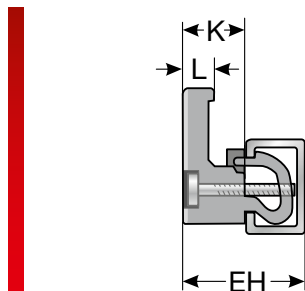




Type	Order No.	Color	No. Cables	Pack qty.
KAF 11	87201010	Black	1	1
KAF 75	87201014	Black	5	1
KAF 140	87201018	Black	9	1

Dimension table

Type	Order No.	A inch	B inch	a inch	EH inch	K inch	L inch	M inch
KAF 11	87201010	0.45	1.57		0.43	0.53	0.47	0.37
KAF 75	87201014	2.95	1.57	2.48	0.43	0.53	0.47	0.37
KAF 140	87201018	5.49	1.57	5.03	0.43	0.53	0.47	0.37



The cable fixing plate KAF is suitable for simultaneously holding and relieving the strain of cables in the control cabinet. Mounted using Niedax model 2910 C-rail. Installation is a simple snap-in process. Additional securing through pre-mounted lock screw.

 -40.00 – 257 °F
 Polyamide 6.6
 V0

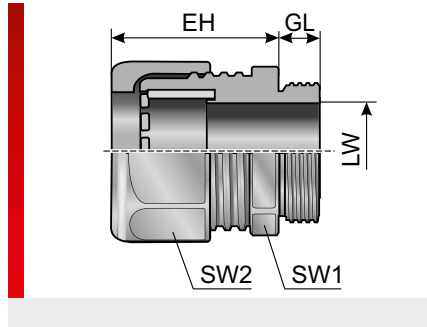
Type	Order No.	Color	No. Cables	Pack qty.
KAF/NI 100	87201006	Black	6	1

[illegible]



Cable fittings m-seal®

Cable fitting m-seal® KV (plastic version)



PRODUCT INFORMATION

The m-seal cable fittings are manufactured of specially modified Polyamide and the seal is made of NBR.

m-seal cable fittings feature the following advantages:

- Large seal and clamping area
- With integrated strain relief
- High protection class IP 68
- Simple, fast assembly without special tools.

SPECIFICATIONS

	-4 – 212 °F Short periods 302 °F
	
	i.a.w. UL94 V2 self-extinguishing
	IP 68
	Strain relief according to DIN EN 50262



Type	Order No.	Color	Connecting thread	Clamping range (LW) inch	EH inch	GL inch	SW 1 / 2 inch	Pack qty.
Metric plastic thread								
m-seal KV M12x1.5 3.0-6.5 ¹⁾	84181250	Black	M12x1,5	0.12 – 0.26	0.87	0.24	0.59	100
m-seal KV M12x1.5 4.0-8.0 ¹⁾	84181252	Black	M16x1,5	0.16 – 0.31	0.98	0.31	0.75	50
m-seal KV M20x1.5 6.0-12.0 ²⁾	84181254	Black	M20x1,5	0.24 – 0.47	1.14	0.39	0.94	50
m-seal KV M25x1.5 11.0-17.0 ²⁾	84181256	Black	M25x1,5	0.43 – 0.67	1.30	0.31	1.14	50
m-seal KV M32x1.5 15.0-21.0 ²⁾	84181258	Black	M32x1,5	0.59 – 0.83	1.54	0.39	1.42	25
m-seal KV M40x1.5 19.0-28.0 ²⁾	84181260	Black	M40x1,5	0.75 – 1.1	1.73	0.39	1.81	20
m-seal KV M50x1.5 30.0-38.0 ²⁾	84181262	Black	M50x1,5	1.18 – 1.5	1.93	0.71	2.36	10
m-seal KV M63x1.5 34.0-44.0 ²⁾	84181264	Black	M63x1,5	1.34 – 1.73	1.93	0.71	2.56	10
m-seal KV M12x1.5 3.0-6.5 ¹⁾	84181200	Gray	M12x1,5	0.12 – 0.26	0.87	0.24	0.59	100
m-seal KV M12x1.5 4.0-8.0 ¹⁾	84181202	Gray	M16x1,5	0.16 – 0.31	0.98	0.31	0.75	50
m-seal KV M20x1.5 6.0-12.0 ²⁾	84181204	Gray	M20x1,5	0.24 – 0.47	1.14	0.39	0.94	50
m-seal KV M25x1.5 11.0-17.0 ²⁾	84181206	Gray	M25x1,5	0.43 – 0.67	1.30	0.31	1.14	50
m-seal KV M32x1.5 15.0-21.0 ²⁾	84181208	Gray	M32x1,5	0.59 – 0.83	1.54	0.39	1.42	25
m-seal KV M40x1.5 19.0-28.0 ²⁾	84181210	Gray	M40x1,5	0.75 – 1.1	1.73	0.39	1.81	20
m-seal KV M50x1.5 30.0-38.0 ²⁾	84181212	Gray	M50x1,5	1.18 – 1.5	1.93	0.71	2.36	10
m-seal KV M63x1.5 34.0-44.0 ²⁾	84181214	Gray	M63x1,5	1.34 – 1.73	1.93	0.71	2.56	10
Pg plastic threading								
m-seal KV Pg 7 3.0-6.5 ¹⁾	84181050	Black	Pg 07	0.12 – 0.26	0.87	0.31	0.59	100
m-seal KV Pg 9 4.0-8.0 ¹⁾	84181052	Black	Pg 09	0.16 – 0.31	0.98	0.31	0.75	50

Cable fitting m-seal® KV (plastic version) (Continued...)

Type	Order No.	Color	Connecting thread	Clamping range (LW) inch	EH inch	GL inch	SW 1 / 2 inch	Pack qty.
m-seal KV Pg 11 5.0-10.0 ³⁾	84181054	Black	Pg 11	0.2 – 0.39	1.10	0.31	0.87	50
m-seal KV Pg 13.5 6.0-12.0 ²⁾	84181056	Black	Pg 13.5	0.24 – 0.47	1.14	0.35	0.94	50
m-seal KV Pg 16 10.0-14.0 ⁴⁾	84181058	Black	Pg 16	0.39 – 0.55	1.22	0.39	1.06	50
m-seal KV Pg 21 13.0-18.0 ²⁾	84181060	Black	Pg 21	0.51 – 0.71	1.38	0.43	1.3	25
m-seal KV Pg 29 18.0-25.0 ⁴⁾	84181062	Black	Pg 29	0.71 – 0.98	1.57	0.43	1.65	20
m-seal KV Pg 36 22.0-32.0 ²⁾	84181064	Black	Pg 36	0.87 – 1.26	1.93	0.51	2.09	10
m-seal KV Pg 42 30.0-38.0 ²⁾	84181066	Black	Pg 42	1.18 – 1.5	1.93	0.51	2.36	10
m-seal KV Pg 48 34.0-44.0 ²⁾	84181068	Black	Pg 48	1.34 – 1.73	1.93	0.55	2.56	10
m-seal KV Pg 7 3.0-6.5 ¹⁾	84181000	Gray	Pg 07	0.12 – 0.26	0.87	0.31	0.59	100
m-seal KV Pg 9 4.0-8.0 ¹⁾	84181002	Gray	Pg 09	0.16 – 0.31	0.98	0.31	0.75	50
m-seal KV Pg 11 5.0-10.0 ³⁾	84181004	Gray	Pg 11	0.2 – 0.39	1.10	0.31	0.87	50
m-seal KV Pg 13.5 6.0-12.0 ²⁾	84181006	Gray	Pg 13.5	0.24 – 0.47	1.14	0.35	0.94	50
m-seal KV Pg 16 10.0-14.0 ⁴⁾	84181008	Gray	Pg 16	0.39 – 0.55	1.22	0.39	1.06	50
m-seal KV Pg 21 13.0-18.0 ²⁾	84181010	Gray	Pg 21	0.51 – 0.71	1.38	0.43	1.3	25
m-seal KV Pg 29 18.0-25.0 ⁴⁾	84181012	Gray	Pg 29	0.71 – 0.98	1.57	0.43	1.65	20
m-seal KV Pg 36 22.0-32.0 ²⁾	84181014	Gray	Pg 36	0.87 – 1.26	1.93	0.51	2.09	10
m-seal KV Pg 42 30.0-38.0 ²⁾	84181016	Gray	Pg 42	1.18 – 1.5	1.93	0.51	2.36	10
m-seal KV Pg 48 34.0-44.0 ²⁾	84181018	Gray	Pg 48	1.34 – 1.73	1.93	0.55	2.56	10

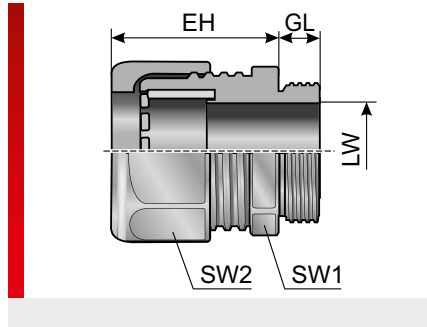
¹⁾ With UR approval

²⁾ With UL approval

³⁾ With cURus- approval

⁴⁾ With cULus- approval

Cable fitting m-seal® MV (metal version)



PRODUCT INFORMATION

The m-seal cable fittings are made of nickel-plated brass and the sealing ring of neoprene. The fittings offer excellent strain relief and have a cap nut that is resistant to vibration.

m-seal cable fittings feature the following advantages:

- Large seal and clamping area
- With integrated strain relief
- High protection class IP 68
- Simple, fast assembly without special tools.

SPECIFICATIONS

	-4 – 212 °F Short periods 302 °F
	
	i.a.w. UL94 V2 self-extinguishing
	IP 68
	Strain relief according to DIN EN 50262



Type	Order No.	Connecting thread	Clamping range (LW) inch	EH inch	GL inch	SW 1 / 2 inch	Pack qty.
Metric metal thread							
m-seal MV M12x1.5 3.0-6.5 ¹⁾	84201600	M12x1,5	0.12 – 0.26	0.85	0.24	0.55	50
m-seal MV M16x1.5 5.0-10.0 ²⁾	84201602	M16x1,5	0.2 – 0.39	1	0.28	0.79	50
m-seal MV M20x1.5 6.0-12.0 ¹⁾	84201604	M20x1,5	0.24 – 0.47	1	0.31	0.87	50
m-seal MV M25x1.5 11.0-17.0 ³⁾	84201606	M25x1,5	0.43 – 0.67	1.22	0.31	1.06	25
m-seal MV M32x1.5 15.0-21.0 ³⁾	84201608	M32x1,5	0.59 – 0.83	1.32	0.31	1.34	10
m-seal MV M40x1.5 19.0-28.0 ³⁾	84201610	M40x1,5	0.75 – 1.1	1.65	0.35	1.69	10
m-seal MV M50x1.5 27.0-38.0 ³⁾	84201612	M50x1,5	1.06 – 1.5	1.97	0.35	2.28	5
m-seal MV M63x1.5 34.0-44.0 ¹⁾	84201614	M63x1,5	1.34 – 1.73	2.06	0.55	2.52 / 2.68	5
Pg metal thread							
m-seal MV Pg 7 3.0-6.5 ¹⁾	84201000	Pg 07	0.12 – 0.26	0.86	0.24	0.55	50
m-seal MV Pg 9 4.0-8.0 ¹⁾	84201002	Pg 09	0.16 – 0.31	0.89	0.24	0.67	50
m-seal MV Pg 11 5.0-11.0 ¹⁾	84201004	Pg 11	0.2 – 0.43	1	0.24	0.79	50
m-seal MV Pg 13.5 6.0-12.0 ¹⁾	84201006	Pg 13.5	0.24 – 0.47	0.95	0.26	0.87	50
m-seal MV Pg 16 10.0-14.0 ¹⁾	84201008	Pg 16	0.39 – 0.55	1.08	0.26	0.94	25
m-seal MV Pg 21 13.0-18.0 ¹⁾	84201010	Pg 21	0.51 – 0.71	1.23	0.28	1.18	20
m-seal MV Pg 29 18.0-25.0 ¹⁾	84201012	Pg 29	0.71 – 0.98	1.55	0.31	1.57	10
m-seal MV Pg 36 22.0-32.0 ¹⁾	84201014	Pg 36	0.87 – 1.26	1.86	0.35	1.97	5
m-seal MV Pg 42 30.0-38.0 ¹⁾	84201016	Pg 42	1.18 – 1.5	1.88	0.47	2.28	5
m-seal MV Pg 48 34.0-44.0 ¹⁾	84201018	Pg 48	1.34 – 1.73	2.05	0.55	2.52	5
Long, metal metric threading							
m-seal MV M12x1.5-L 3.0-6.5	84201400	M12x1,5	0.12 – 0.26	0.85	0.47	0.55	50

Cable fitting m-seal® MV (metal version) (Continued...)

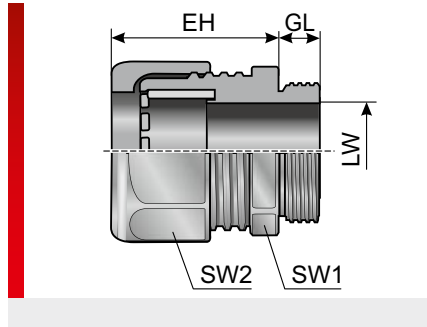
Type	Order No.	Connecting thread	Clamping range (LW) inch	EH inch	GL inch	SW 1 / 2 inch	Pack qty.
m-seal MV M16x1.5-L 5.0-10.0	84201402	M16x1,5	0.2 – 0.39	1	0.47	0.79	50
m-seal MV M20x1.5-L 6.0-12.0	84201404	M20x1,5	0.24 – 0.47	1	0.47	0.87	50
m-seal MV M25x1.5-L 11.0-17.0	84201406	M25x1,5	0.43 – 0.67	1.22	0.47	1.06	25
m-seal MV M32x1.5-L 15.0-21.0	84201408	M32x1,5	0.59 – 0.83	1.32	0.59	1.34	10
m-seal MV M40x1.5-L 19.0-28.0	84201410	M40x1,5	0.75 – 1.1	1.65	0.59	1.69	10
m-seal MV M50x1.5-L 27.0-38.0	84201412	M50x1,5	1.06 – 1.5	1.97	0.59	2.28	5
m-seal MV M63x1.5-L 34.0-44.0	84201414	M63x1,5	1.34 – 1.73	2.06	0.59	2.52 / 2.68	5
Long, metal PG threading							
m-seal MV Pg 7-L 3.0-6.5	84201200	Pg 07	0.12 – 0.26	0.86	0.39	0.55	50
m-seal MV Pg 9-L 4.0-8.0	84201202	Pg 09	0.16 – 0.31	0.89	0.39	0.67	50
m-seal MV Pg 11-L 5.0-11.0	84201204	Pg 11	0.2 – 0.43	1	0.39	0.79	50
m-seal MV Pg 13.5-L 6.0-12.0	84201206	Pg 13.5	0.24 – 0.47	0.95	0.39	0.87	50
m-seal MV Pg 16-L 10.0-14.0	84201208	Pg 16	0.39 – 0.55	1.08	0.39	0.94	25
m-seal MV Pg 21-L 13.0-18.0	84201210	Pg 21	0.51 – 0.71	1.23	0.47	1.18	20
m-seal MV Pg 29-L 18.0-25.0	84201212	Pg 29	0.71 – 0.98	1.55	0.47	1.57	10
m-seal MV Pg 36-L22.0-32.0	84201214	Pg 36	0.87 – 1.26	1.86	0.55	1.97	5
m-seal MV Pg 42-L 30.0-38.0	84201216	Pg 42	1.18 – 1.5	1.88	0.63	2.28	5
m-seal MV Pg 48-L 34.0-44.0	84201218	Pg 48	1.34 – 1.73	2.05	0.71	2.52	5

¹⁾ With CSA approval

²⁾ With CSA- and cURus- approval

³⁾ With CSA- and cULus- approval

Cable fitting m-seal® EMC (EMV)



PRODUCT INFORMATION

With the m-seal EMC (EMV) cable fittings, simple radial and axial movement of the cable are possible, even at contact location. The contact finger surfaces with rounded edges prevent damage to the conductor. In addition, the large surface on the contact finger makes low contact resistance possible, even on loosely woven cables (the contact area does not press into the conductor).

The m-seal EMC (EMV) cable fitting features the following advantages:

- Large seal and clamping area
- With integrated strain relief
- High protection class IP 68
- High contract rating, even at vibration conditions
- Very simple and rapid assembly without tools
- Suitable for the highest requirements of today's technology
- Very good shielding attenuation

SPECIFICATIONS



-4 – 212 °F
Short periods 302 °F





i.a.w. UL94 V2 self-extinguishing



IP 68



Strain relief according to DIN EN 50262







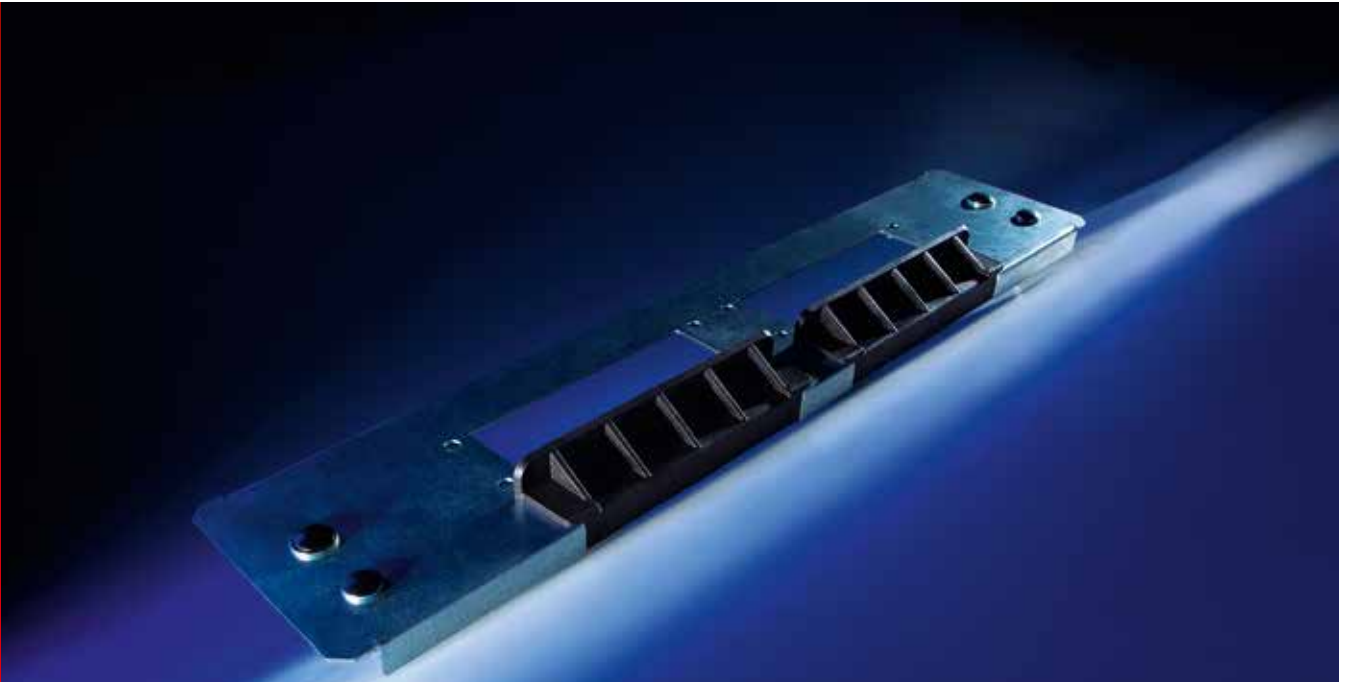




Type	Order No.	Connecting thread	Clamping range (LW) inch	Contact diameter inch	EH inch	GL inch	SW 1 / 2 inch	Pack qty.
Metric metal thread / EMC version								
m-seal EMC M12x1.5 3.0-6.5 ¹⁾	84201800	M12x1,5	0.12 – 0.26	0.08 – 0.2	1.10	0.24	0.55	50
m-seal EMC M16x1.5 5.0-10.0 ¹⁾	84201802	M16x1,5	0.2 – 0.39	0.14 – 0.31	1.34	0.24	0.79	50
m-seal EMC M20x1.5 6.0-12.0	84201804	M20x1,5	0.24 – 0.47	0.18 – 0.39	1.50	0.24	0.94	50
m-seal EMC M25x1.5 10.0-18.0 ¹⁾	84201806	M25x1,5	0.39 – 0.71	0.28 – 0.55	1.65	0.31	1.18	25
m-seal EMC M32x1.5 16.0-25.0 ²⁾	84201808	M32x1,5	0.63 – 0.98	0.47 – 0.79	1.97	0.35	1.57	10
m-seal EMC M40x1.5 22.0-32.0 ²⁾	84201810	M40x1,5	0.87 – 1.26	0.71 – 1.06	2.24	0.35	1.97	5
m-seal EMC M50x1.5 30.0-38.0 ²⁾	84201812	M50x1,5	1.18 – 1.5	1.02 – 1.34	2.68	0.35	2.28	5
m-seal EMC M63x1.5 34.0-44.0 ²⁾	84201814	M63x1,5	1.34 – 1.73	1.18 – 1.57	2.72	0.55	2.52 / 2.68	5

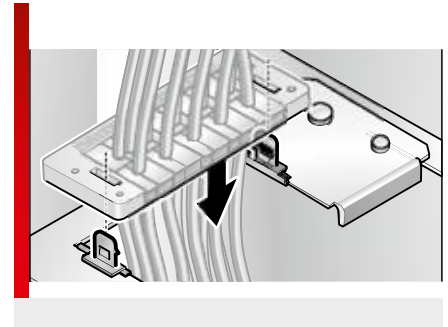
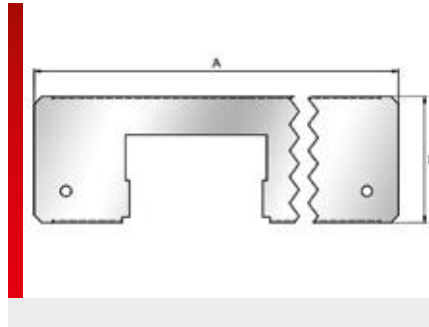
¹⁾ With cURus- approval

²⁾ With cULus- approval



Accessories

SBB control cabinet floor plate



PRODUCT INFORMATION

The control cabinet floor plate can be installed in Rittal (type CM and TS8) control cabinets. Up to 5 cable entry systems can be installed.

Locking plates of Type VP 24 or VP/N 24 are included with the supply of the control cabinet floor plates. These are required to lock the floor sheeting into place.

Non-required cut-outs can be closed with the BP/H 24 blanking plate.

- Protection category IP 54 when properly assembled as a system (control cabinet + floor plate)
- Can be installed entirely retrospectively
- Earthing points (M6 and M8) available on both side

SPECIFICATIONS

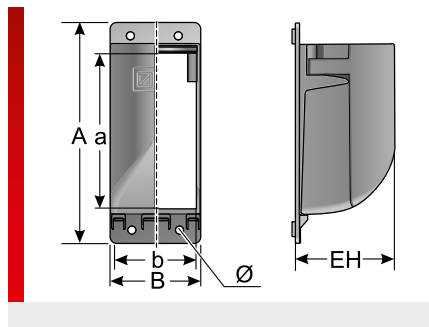
	-40.00 – 257 °F
	Floor sheeting: Galvanized sheet steel Locking plates: Polyamide 6.6
	V0
	IP 54 when installed correctly



Type	Order No.	For control cabinet width inch	No. Location spaces	Plate thickness inch	A inch	B inch	Pack qty.
and M5 threads							
SBB-M5 420-2000 ¹⁾	87821012	39.37	2x 24-pin	0.06	16.69	3.94	1
SBB-M5 460-2000	87821022	23.62	2x 24-pin	0.06	18.27	3.94	1
SBB-M5 520-3000 ¹⁾	87821032	47.24	3x 24-pin	0.06	20.63	3.94	1
SBB-M5 660-3000	87821042	31.50	3x 24-pin	0.06	26.14	3.94	1
with through-hole							
SBB 420 - 2000 ¹⁾	87821010	39.37	2x KDL/E 24 BPH	0.06	16.69	3.94	1
SBB 460 - 2000	87821020	23.62	2x KDL/E 24 BPH	0.06	18.27	3.94	1
SBB 520 - 3000 ¹⁾	87821030	47.24	3x KDL/E 24 BPH	0.06	20.63	3.94	1
SBB 660 - 3000	87821040	31.50	3x KDL/E 24 BPH	0.06	26.14	3.94	1
SBB 860 - 5000 ²⁾	87821050	39.37	5x KDL/E 24 BPH	0.06	34.02	3.94	1
Replacement part: Locking plates							
VP24	87821090						5
suitable for KDL/E 24							
VP/N 24	87821092						5
suitable for KDP, KDL/C and KDL/D 24							

¹⁾ Cabinet width with central strut

²⁾ Cabinet width without central strut



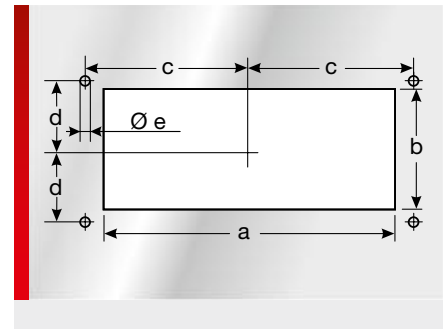
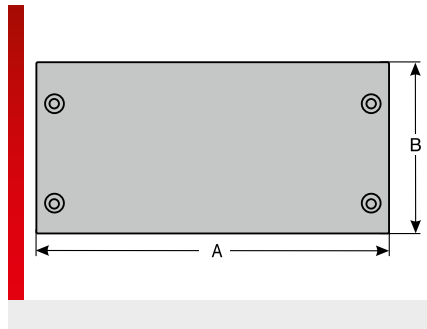
The KDP/H conduit connection enables a connection to our Murrflex M50/P48 cable protection conduits with standard corrugation on the cable entry plates of Types KDP/N 24, KDP/X 24 and KDP/E 24. The conduit connection is comprised of a lower part that is screwed together with the cable entry plate and an upper part that engages with the lower part after the cables have been feed through the cable entry plate without tools.

- Line protection
- Contaminant water and water jet protection
- Easy assembly and disassembly
- Compact design
- For all Murrflex conduits of sizes M50/P48 with standard corrugation

 -40.00 – 230.00 °F
 Polyamide 6
 V0

[illegible]

Blanking plate (plastic version)



PRODUCT INFORMATION

The blanking plates are suited for sealing cut-outs for 16- or 24-pole connectors.

- Integrated seal
- BP/N can be snap-fitted or screw-fastened
- BP/H snap-fit assembly

SPECIFICATIONS

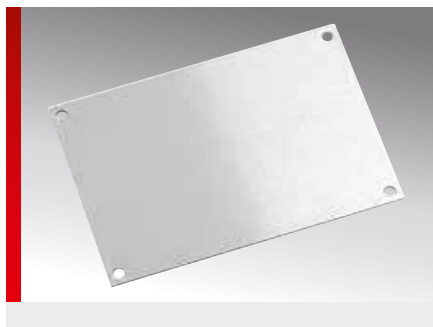
	-40.00 – 257 °F
	BP, BP/N: Polyamide 6.6 BP/H: TPE
	V0 BP, BP/N: HB BP/H:
	IP 54 BP: IP 65 BP/N: IP 42 BP/H:



Type	Order No.	Color	Pack qty.
Reinforced version			
BP 16	87171620	Black	10
BP 24	87171622	Black	10
High design, latchable from plate thickness 1.5–2.0 mm			
BP/N 24	87171624	Black	1
Flexible version			
BP/H 24	87171626	Black	1

Dimension table

Type	Order No.	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
Reinforced version									
BP 16	87171620	0.31	4.57	2.28	3.39	1.42	2.03	0.63	0.22
BP 24	87171622	0.31	5.75	2.28	4.41	1.42	2.56	0.63	0.22
High design, latchable from plate thickness 1.5–2.0 mm									
BP/N 24	87171624	0.61	5.75	2.28	4.41	1.42	2.56	0.63	0.22
Flexible version									
BP/H 24	87171626	0.18	5.75	1.89	4.41	1.42	2.56	0.63	0.22



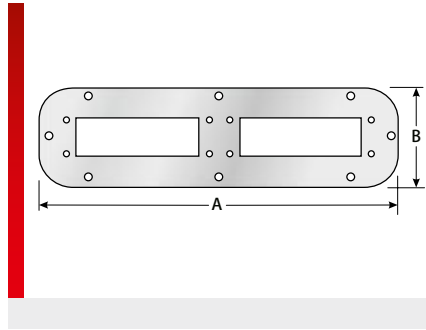
Blanking plate for closing off unused adapter positions and cut-outs.
The stainless steel version is particularly suitable for applications in the food and chemical industry.
Integrated threaded bolts mean that no screws are visible from outside.
Mounting set included in delivery.



Plate: See article
Seal: NBR

[illegible]

Rittal adapter plate



PRODUCT INFORMATION

The Rittal adapter plates can be directly mounted into the prefabricated cut-outs from Rittal casings. They are used to accommodate various Murrplastik cable entry systems. Unused adapter spaces can be closed off using blanking plates.

SPECIFICATIONS

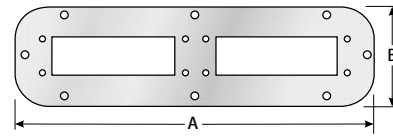


Stainless steel V2A (1.4301)
V4A (1.4571)
Steel (1.1203)



Type	Order No.	Color	Location spaces	Cutting	Plate thickness inch	A inch	B inch	Pack qty.
With integral M5/M6 threads								
AP/RI-TS/1+1-M6 St-vz	87663220	Gray	1x KDL-Jumbo 1	TS8	0.08	13.31	6.61	1
			1x KDL-Jumbo 2					
AP/RI-TS/1+2-M5/M6 St-vz	87663216	Gray	1x KDL-Jumbo 1	TS8	0.08	13.31	6.61	1
			2x 24-pole					
AP/RI-TS/2-M6 St-vz	87663218	Gray	2x KDL-Jumbo 1	TS8	0.08	13.31	6.61	1
APM/RI-2 1x24-M5, RAL 7035 ¹⁾	87823080	RAL 7035	1x 24-pole	2	0.06	8.70	3.54	1
APM/RI-3 1x24-M5, RAL 7035 ¹⁾	87823070	RAL 7035	1x 24-pole	3	0.06	12.99	3.54	1
APM/RI-3 2x24-M5, RAL 7035 ¹⁾	87823072	RAL 7035	2x 24-pole	3	0.06	12.99	3.54	1
APM/RI-4 2x24-M5, RAL 7035 ¹⁾	87823050	RAL 7035	2x 24-pole	4	0.06	13.35	5.87	1
APM/RI-4 4x24-M5, RAL 7035 ¹⁾	87823052	RAL 7035	4x 24-pole	4	0.06	13.35	5.87	1
APM/RI-5 3x24-M5, RAL 7035 ¹⁾	87823060	RAL 7035	3x 24-pole	5	0.06	21.02	5.87	1
APM/RI-5 6x24-M5, RAL 7035 ¹⁾	87823062	RAL 7035	6x 24-pole	5	0.06	21.02	5.87	1
KDP AP/RI-TS/3-M5	87663212	Smoothed	3x 24-pole	TS8	0.08	13.31	6.61	1
KDP AP/RI-TS/4-M5	87663214	Smoothed	4x 24-pole	TS8	0.08	13.31	6.61	1
With 24-pin cut-outs								
APM/RI-2 1x24, RAL 7035 ¹⁾	87823040	RAL 7035	1x 24-pole	2	0.06	8.70	3.54	1
APM/RI-3 1x24, RAL 7035 ¹⁾	87823030	RAL 7035	1x 24-pole	3	0.06	12.99	3.54	1
APM/RI-3 2x24, RAL 7035 ¹⁾	87823032	RAL 7035	2x 24-pole	3	0.06	12.99	3.54	1
APM/RI-4 2x24, RAL 7035 ¹⁾	87823010	RAL 7035	2x 24-pole	4	0.06	13.35	5.87	1
APM/RI-4 4x24, RAL 7035 ¹⁾	87823012	RAL 7035	4x 24-pole	4	0.06	13.35	5.87	1
APM/RI-5 3x24, RAL 7035 ¹⁾	87823020	RAL 7035	3x 24-pole	5	0.06	21.02	5.87	1
APM/RI-5 6x24, RAL 7035 ¹⁾	87823022	RAL 7035	6x 24-pole	5	0.06	21.02	5.87	1
KDP AP/RI-TS/3	87663202	Smoothed	3x 24-pole	TS8	0.08	13.31	6.61	1
KDP AP/RI-TS/4	87663204	Smoothed	4x 24-pole	TS8	0.08	13.31	6.61	1
KDP 24/AP/RI-KL/1	87663073	Smoothed	1x 24-pole	2	0.08	8.70	3.54	1
KDP 24/AP/RI-BG/2	87663074	Smoothed	2x 24-pole	BG 1558.510	0.08	13.98	3.62	1

Rittal adapter plate (Continued...)

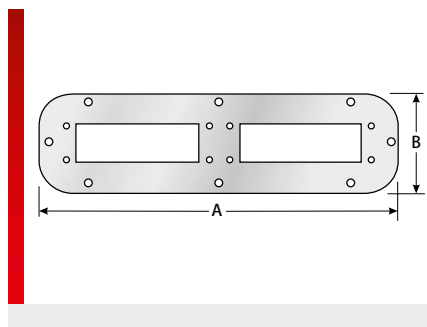


Type	Order No.	Color	Location spaces	Cutting	Plate thickness inch	A inch	B inch	Pack qty.
KDP 24/AP/RI-AE/2	87663072	Smoothed	2x 24-pole	3	0.08	12.99	3.54	1
KDP 24/AP/RI-BG/3+4	87663075	Smoothed	3x 24-pole	BG 1559.510	0.08	21.85	3.62	1
			2x M20					
			2x M25					
KDP 24/AP/RI-AE/4 ²⁾	87663070	Smoothed	4x 24-pole	4	0.08	13.35	5.87	1
KDP 24/AP/RI-AE/6+2 ²⁾	87663071	Smoothed	6x 24-pole	5	0.08	21.02	5.87	1
			2x M32					
For metal KDP								
KDP AP 149/105/3 St ¹⁾	87663084	RAL 7035	3x KDP 105/xx	5	0.10	21.02	5.87	1
KDP AP 149/100/2 V4A	87663080	Smoothed	2x KDP 100/xx	4	0.10	13.35	5.87	1
KDP AP 149/100/3 V4A	87663082	Smoothed	3x KDP 100/xx	5	0.10	21.02	5.87	1
With M50 cut-out								
AP/RI-TS/3x50	87663208	Smoothed	3x M50	TS8	0.08	13.31	6.61	1
AP/RI-TS/5x50	87663206	Smoothed	5x M50	TS8	0.08	13.31	6.61	1
BP RI-TS/338x168	87663210	Smoothed		TS8	0.08	13.31	6.61	1

¹⁾ Material steel (1.1203)

²⁾ The KDL/E 24/xx cable entry system is mounted in a staggered pattern on the cut-outs. As a result, KDL/E 24/xx units cannot be positioned on top of one another. The configuration plan illustrates the possible layouts for the KDL/E 24/xx cable entry system.

Sarel adapter plate



PRODUCT INFORMATION

Adapter plate can be fitted directly into the standard cut-outs of Sarel cabinets. They are used to accommodate various Murrplastik cable entry systems. Unused adapter spaces can be closed off using blanking plates. A blade terminal L6.3 is available for grounding the adapter plate. Adapter plate without sealing. The seal is part of the cabinet accessories.

SPECIFICATIONS

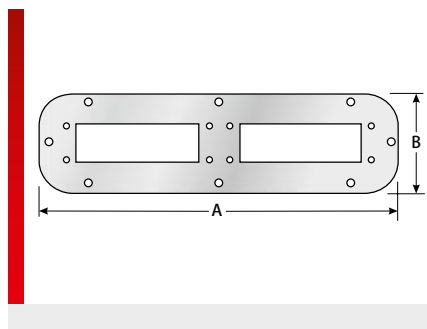


Stainless steel 1.4301
(V2A)



Type	Order No.	Color	Location spaces	Cutting	Plate thickness inch	A inch	B inch	Pack qty.
With 24-pin cut-outs								
KDP 24/AP/SA/2+0	87663102	Smoothed	2x 24-pole	515X4	0.08	13.58	5.12	1
KDP 24/AP/SA/2+4	87663112	Smoothed	2x 24-pole	515X5	0.08	17.52	5.12	1
			4x M32					
KDP 24/AP/SA/3+2	87663108	Smoothed	3x 24-pole	515X6	0.08	21.46	5.12	1
			2x M32					
KDP 24/AP/SA/5+4	87663100	Smoothed	5x 24-pole	515X7	0.08	19.49	8.66	1
			2x M25					
			2x M50					
For metal KDP								
KDP AP/SA/130/100/2	87663130	Smoothed	2x KDP 100/xx	515X4	0.10	13.58	5.12	1
KDP AP/SA/130/100/2+4	87663128	Smoothed	2x KDP 100/xx	515X5	0.10	17.52	5.12	1
			4x M32					
KDP AP/SA/130/100/3+2	87663126	Smoothed	2x KDP 100/xx	515X6	0.10	21.46	5.12	1
			3x M32					
For KDP/R								
KDP/R AP/SA-1	87663106	Smoothed	6x M63	515X6	0.08	21.46	5.12	1
KDP/R AP/SA-2	87663110	Smoothed	5x M63	515X5	0.08	17.52	5.12	1
KDP/R AP/SA-3	87663114	Smoothed	3x M63	515X4	0.08	13.58	5.12	1
KDP/R AP/SA-4	87663104	Smoothed	2x M32	515X3	0.08	9.65	5.12	1
			2x M63					

Ensto adapter plate



PRODUCT INFORMATION

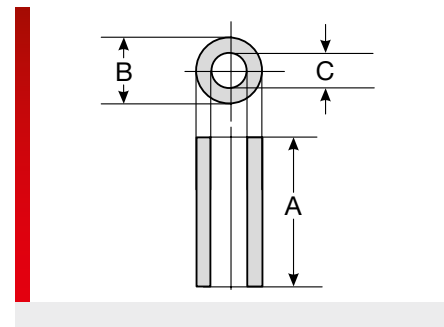
The Ensto adapter plates can be directly mounted into the prefabricated cut-outs from Ensto casings. They serve to retain various Murrplastik cable entry systems. Unused adapter spaces can be closed off using blanking plates. A blade terminal L6.3 is available for grounding the adapter plate. Adapter plate without sealing. The seal is part of the cabinet accessories.

SPECIFICATIONS

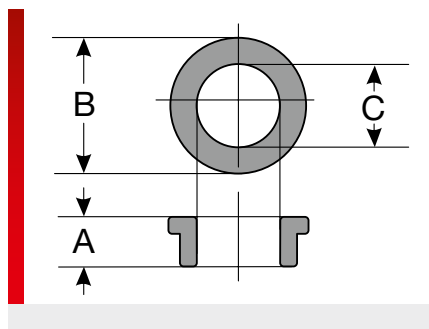


Stainless steel 1.4301
(V2A)

[illegible]



¹⁾for ZL 180/8 only



The ELB insert bushing can be laid into the strain relief plate type ZL. It prevents cold flow of the plastic at the fixing point during heavy strain or permanent movement.



Brass

[illegible]

RoHS
Made in
Germany

[illegible]

KB/KBM cable tie



PRODUCT INFORMATION

Cable ties are a reliable method for the economic bundling and fastening of cables, cable harnesses, tubes, conduits and other components.

The Black cable ties are suitable for outdoor applications.

The cable tie KKB 28 is equipped with a special locking mechanism and is especially suitable for heavy-duty applications.

The KBM metal cable tie is ideally used for EMC solutions. It creates greater contact surface area for discharging sheath currents.

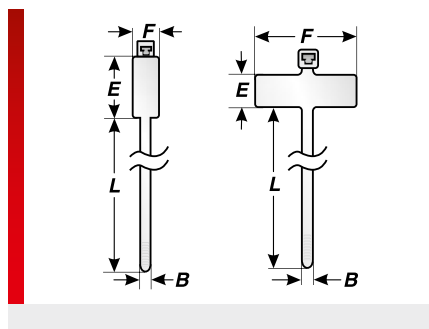
SPECIFICATIONS

	KB: Polyamide 6.6 KBM: Stainless steel 1.4301
	V2 for Type KB Black only V2 for Type KKB only
	Black cable ties are UV stabilized
	

Type	Order No.	Color	Length inch	Width inch	Bundle range inch	Tensile strength max.	Pack qty.
Plastic cable ties							
KB 15 ¹⁾	87661251	Black	2.95	0.09	0.59	60.00	1000
KB 20 ¹⁾	87661252	Black	3.86	0.10	0.79	60.00	1000
KB 22 ¹⁾	87661254	Black	4.72	0.10	1.18	80.00	1000
KB 25 ¹⁾	87661256	Black	5.51	0.14	1.30	130.00	1000
KB 30 ¹⁾	87661260	Black	6.30	0.18	1.50	180.00	1000
KB 45 ¹⁾	87661262	Black	7.01	0.19	1.77	220.00	1000
KB 50 ¹⁾	87661264	Black	7.87	0.11	1.97	80.00	1000
KB 55 ¹⁾	87661266	Black	7.87	0.19	1.97	220.00	1000
KB 75 ¹⁾	87661268	Black	11.42	0.19	2.95	220.00	100
KB 100 ¹⁾	87661270	Black	14.17	0.19	3.94	220.00	100
KB 110 ¹⁾	87661272	Black	14.57	0.31	4.13	540.00	100
KB 15 ¹⁾	87661210	Natural color	2.95	0.09	0.59	60.00	1000
KB 20 ¹⁾	87661214	Natural color	3.86	0.10	0.79	60.00	1000
KB 22 ¹⁾	87661218	Natural color	5.12	0.10	1.18	80.00	1000
KB 25 ¹⁾	87661222	Natural color	5.51	0.14	1.30	130.00	1000
KB 30 ¹⁾	87661226	Natural color	6.30	0.18	1.50	180.00	1000
KB 45 ¹⁾	87661230	Natural color	7.01	0.19	1.77	220.00	1000
KB 50 ¹⁾	87661234	Natural color	7.87	0.11	1.97	80.00	1000
KB 55 ¹⁾	87661238	Natural color	7.87	0.19	1.97	220.00	1000
KB 75 ¹⁾	87661242	Natural color	11.42	0.19	2.95	220.00	100
KB 100 ¹⁾	87661246	Natural color	14.17	0.19	3.94	220.00	100
KB 110 ¹⁾	87661248	Natural color	14.57	0.31	4.13	540.00	100
Power cable tie with special lock							
KKB 28 ²⁾	87661258	Black	7.09	0.31	1.57	360.00	100

[illegible]

BF cable tie



PRODUCT INFORMATION

Cable tie with title block.

For use with ink pens or permanent water-proof markers.

BF20 (Fig. right)

Labeling field lengthwise on cable.

BF45 (Fig. left)

Labeling field across the cable.

SPECIFICATIONS



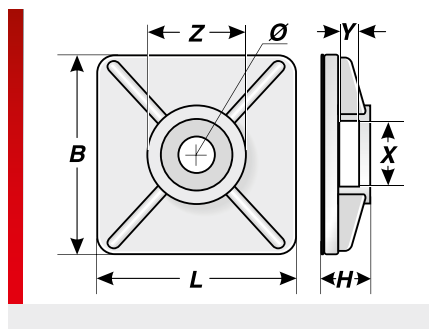
-13 - 185 °F



Polyamide



Type	Order No.	Color	B inch	E inch	F inch	L inch	Bundle range inch	Tensile strength max.	Pack qty.
BF 20	87681010	White	0.10	0.31	0.98	3.39	0.75	80.00	100
BF 45	87681012	Natural color	0.19	1.10	0.51	6.18	1.77	222.00	100



Adhesive holder, plastic. The retention force can be increased by additional fastening with a screw. If pressure sensitive adhesives are used, the surface must be smooth and free of dust and grease. Contaminated surfaces must be cleaned with proper cleaning agents.



RoHS

RoHS

Type	Order No.	Color	L inch	B inch	H inch	X inch	Y inch	Z inch	Ø inch	Pack qty.
KH 1	87681220	White	0.75	0.75	0.24	0.16	0.07	0.30	0.17	100
KH 2	87681222	White	1.06	1.06	0.30	0.24	0.09	0.38	0.19	100

[illegible]

[illegible]



Tools

Sturdy cable shears KS1. Suitable for removing cable sheathing and braided shields. EW-PAP cable protection conduit with metal braiding can be processed with these shears.

A blue folding utility knife with a serrated blade extended. The knife is shown at an angle against a light gray background. The handle is blue plastic, and the blade is silver metal with a serrated edge. A small red button is visible on the handle near the blade.

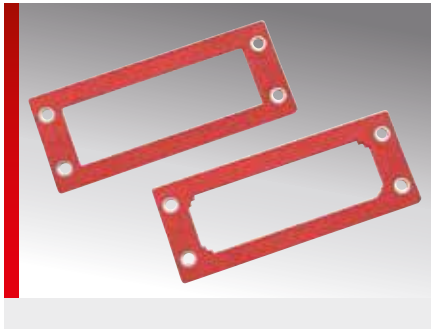
KKBW



Cable tie tool KBM and KKBW for mounting of plastic cable ties.

- KBW 1K with adjustable automated cutting mechanism, plastic casing, automated metal cutting mechanism
- KKBW is full metal with manual cutting mechanism

Type	Order No.	Approx. Length inch	Pack qty.
For plastic cable ties			
KBW 1K	87661012	6.69	1
With adjustable automatic cutting device			
Suitable for cable ties of up to 0.24 inch (6 mm) wide			
For plastic cable ties type KKB			
KKBW	87669094	7.48	1
Ties with manual cutting mechanism			
Cable tie tool suitable for plastic cable ties KKB 28 / KB 110.			
Also suitable for plastic cable ties up to 0.31 inch (8 mm) wide			
Quantity: 10000			
Estimated price: 12000,00 USD			
Total price: 12000,00 USD			





Punching tools

A black and white photograph of a pneumatic ratchet wrench resting in its open, foam-lined carrying case. The wrench has a long handle and a ratchet head. The case is open, showing the interior compartments.

- Hydraulic punch made of high-strength aluminum
- Overload protection via overpressure valve
- Ergonomic handle, springs back automatically

Made in Germany

[illegible]

Practical manual punch without additional conduit and cylinder, ideal for workshop and assembly.

- Hydraulic punch made of high-strength aluminum
- Overload protection via overpressure valve
- Ergonomic handle, springs back automatically
- The angle head can be pivoted 360° for better handling.

Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

SW-HF hydraulic foot pump



PRODUCT INFORMATION

Practical hydraulic punch with foot pump; ideal for use in the workshop. The foot pump does not require use of the hands, leaving both hands free for exact positioning and punching at the control cabinet. The support frame of the foot pump is splayed. This provides for stable, anti-tip working.

- Overload protection via installed pump safety valve
- Better punching performance than with a manual punch
- For larger punching tools

SPECIFICATIONS



Type	Order No.	Weight kg / piece	Punching force kN	Operating pressure bar	Pack qty.
Hydraulic punch with foot pump					
SW-HF hydraulic punch with foot pump	87801014	13.92	100	10152.64	1
consisting of:					
1 pce. hydraulic cylinder with quick coupling					
1 pce. hydraulic conduit 9.19 ft (2.8 m)					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (5-parts)					
1 pce. tap drill 0.43 inch (11.0 mm)					
1 pce. sheet steel transport case					
Punching performance, round hole perforator:					
0.08 inch (2.0 mm) sheet steel (St37) Ø max. 5.91 inch (150 mm)					
0.12 inch (3.0 mm) sheet steel (St37) Ø max. 3.94 inch (100 mm)					
0.08 inch (2.0 mm) stainless steel (V2A) Ø max. 3.94 inch (100 mm)					
Punching performance for square hole punch:					
0.08 inch (2.0 mm) sheet steel (St37) max. 5.43 x 5.43 inch (138 x 138 mm)					
0.08 inch (2.0 mm) stainless steel sheet (V2A) max. 3.62 x 3.62 inch (92 x 92 mm)					
Spare part see chapter "spare part for punching tool"					

SW-WR punching tools (rectangular)



PRODUCT INFORMATION

Several punching tools for the creation of square or rectangular cut-outs. These hole punches are delivered a plastic transport case. Also ideal for mounting use. Corresponding tension bolt is included in the delivery. The attachment points for the screw holes can be punch-marked during the punching process.

SPECIFICATIONS



Steel



Type	Order No.	Punching inch	Tensioning screw Type	Cut-out for	Steel type	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
Hole puncher (rectangular) for sheet steel with centering tips							
SW-WR 17.0x19.0 ¹⁾	87801330	0.67 x 0.75	G		Sheet steel	• / •	1
SW-WR 21,8x25,8 ¹⁾	87801332	0.86 x 1.02	K		Sheet steel	• / •	1
SW-WR 22,0x30,0 ¹⁾	87801334	0.87 x 1.18	K		Sheet steel	• / •	1
SW-WR 22,0x42,0 ¹⁾	87801336	0.87 x 1.65	K		Sheet steel	• / •	1
SW-WR 23,0x57,0 ¹⁾	87801339	0.91 x 2.24	K		Sheet steel	• / •	1
SW-WR 25,0x50,0 ¹⁾	87801340	0.98 x 1.97	K		Sheet steel	• / •	1
SW-WR 36.0x52.0 ¹⁾	87801350	36.0 x 2.05	D	Industrial Connectors 6 pole	Sheet steel	• / •	1
SW-WR 36,0x46,0 ¹⁾	87801358	1.42 x 1.81	D	KDL/C & KDL/D 6	Sheet steel	• / •	1
SW-WR 36,0x65,0 ¹⁾	87801352	1.42 x 2.56	D	KDL/C & KDL/D 10	Sheet steel	• / •	1
SW-WR 45,0x92,0 ¹⁾	87801342	1.77 x 3.62	D		Sheet steel	• / •	1
SW-WR 46,0x112,0 ¹⁾	87801356	1.81 x 4.41	E		Sheet steel	- / •	1
SW-WR 46,0x86,0 ¹⁾	87801354	1.81 x 3.39	D		Sheet steel	• / •	1
SW-WR 46,0x92,0 ¹⁾	87801344	1.81 x 3.62	D		Sheet steel	• / •	1
SW-WR 68.0x138.0 ²⁾	87801346	2.68 x 5.43	E		Sheet steel	- / •	1
SW-WR 82,0x132,0 ²⁾	87801382	3.23 x 5.2	E	cablquick Type 100	Sheet steel	- / •	1
SW-WR 86,0x36,0 ¹⁾	87801292	3.39 x 1.42	D	KDL/xx 16 (screw fastened)	Sheet steel	• / •	1
SW-WR 91,0x36,0 ¹⁾	87801294	3.58 x 1.42	D	KDL/E 16 (snap fastened)	Sheet steel	• / •	1
SW-WR 112,0x36,0 ¹⁾	87801290	4.41 x 1.42	D	KDP/xx 24, KDL/xx 24	Sheet steel	• / •	1
SW-WR-VA 112.0x36.0 ³⁾	87801291	4.41 x 1.42	D	KDP/xx 24, KDL/xx 24	Stainless sheet steel	• / •	1

¹⁾ suitable for sheet steel <= 2 mm (0.12 in)

²⁾ suitable for sheet steel <= 3 mm (0.12 in)

³⁾ suitable for steel and stainless steel sheets <= 2 mm (0.08 in)

SW-WQ punching tools (square)



PRODUCT INFORMATION

Several punching tools for the creation of square or rectangular cut-outs. These hole punches are delivered a plastic transport case. Also ideal for mounting use. Corresponding tension bolt is included in the delivery. The attachment points for the screw holes can be punch-marked during the punching process.

SPECIFICATIONS



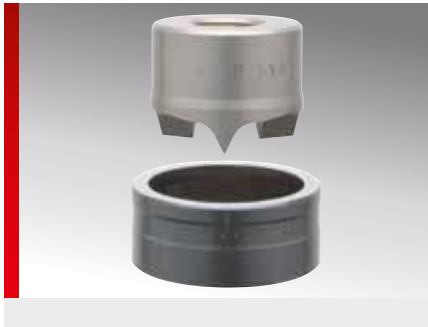
Steel



Type	Order No.	Punching inch	Tensioning screw Type	Steel type	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
Hole perforator (rectangular) for sheet steel with centering tips						
SW-WQ 12,7x12,7 ¹⁾	87801300	0.5 x 0.5	H	Sheet steel	• / •	1
SW-WQ 15,8x15,8 ¹⁾	87801302	0.62 x 0.62	H	Sheet steel	• / •	1
SW-WQ 19,0x19,0 ¹⁾	87801304	0.75 x 0.75	G	Sheet steel	• / •	1
SW-WQ 22,2x22,2 ¹⁾	87801306	0.87 x 0.87	G	Sheet steel	• / •	1
SW-WQ 24,0x24,0 ¹⁾	87801308	0.94 x 0.94	G	Sheet steel	• / •	1
SW-WQ 25,4x25,4 ¹⁾	87801310	1.0 x 1.0	K	Sheet steel	• / •	1
SW-WQ 45,5x45,5 ¹⁾	87801312	1.79 x 1.79	F	Sheet steel	• / •	1
SW-WQ 46.0x46.0 ¹⁾	87801314	1.81 x 1.81	F	Sheet steel	• / •	1
SW-WQ 50,8x50,8 ¹⁾	87801316	2.0 x 2.0	D	Sheet steel	• / •	1
SW-WQ 68,0x68,0 ¹⁾	87801318	2.68 x 2.68	D	Sheet steel	• / •	1
SW-WQ 92,0x92,0 ¹⁾	87801320	3.62 x 3.62	E	Sheet steel	- / •	1
SW-WQ 125,0x125,0 ¹⁾	87801322	4.92 x 4.92	E	Sheet steel	- / •	1
SW-WQ 138,0x138,0 ¹⁾	87801324	5.43 x 5.43	E	Sheet steel	- / •	1

¹⁾ suitable for sheet steel ≤ 2 mm (0.12 in)

SW-WE punching tools (round)



PRODUCT INFORMATION

Round hole punch, individual tools for steel or stainless steel plates. Versions for punching holes in metric or Pg threaded connections.

- Metric sizes from M16 to M63
- Pg sizes from Pg9 to Pg48

SPECIFICATIONS

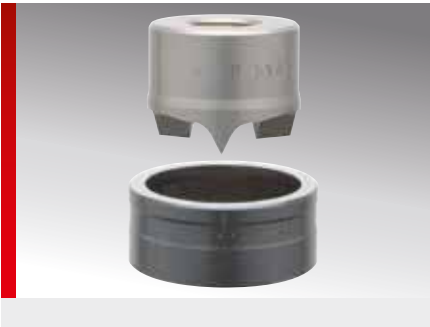


Steel



Type	Order No.	Dimension	Punching inch	Tensioning screw Type	Cut-out for	Steel type	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
Hole perforator (round) for steel sheets								
SW-WE-NS M16 ¹⁾	87801210	M16	0.64	A		Sheet steel	• / •	1
SW-WE-NS M20 ¹⁾	87801212	M20	0.80	A		Sheet steel	• / •	1
SW-WE-NS M25 ¹⁾	87801214	M25	1	A		Sheet steel	• / •	1
SW-WE-NS M32 ²⁾	87801216	M32	1.28	C		Sheet steel	• / •	1
SW-WE-NS M40 ²⁾	87801218	M40	1.59	C	KDPR/F M40/xx	Sheet steel	• / •	1
SW-WE-NS M50 ²⁾	87801220	M50	1.99	C	KDP/R M50/x, KDL/D-R M50/xx	Sheet steel	• / •	1
SW-WE-NS M63 ²⁾	87801222	M63	2.50	C	KDP/R M63/x	Sheet steel	• / •	1
SW-WE-NS Pg09 ¹⁾	87801238	Pg09	0.60	A		Sheet steel	• / •	1
SW-WE-NS Pg11 ¹⁾	87801240	Pg11	0.73	A		Sheet steel	• / •	1
SW-WE-NS Pg13 ¹⁾	87801242	Pg13	0.80	A		Sheet steel	• / •	1
SW-WE-NS Pg16 ¹⁾	87801244	Pg16	0.89	A		Sheet steel	• / •	1
SW-WE-NS Pg21 ¹⁾	87801246	Pg21	1.11	A		Sheet steel	• / •	1
SW-WE-NS Pg29 ²⁾	87801248	Pg29	1.46	C		Sheet steel	• / •	1
SW-WE-NS Pg36 ²⁾	87801250	Pg36	1.85	C		Sheet steel	• / •	1
SW-WE-NS Pg42 ²⁾	87801252	Pg42	2.13	C		Sheet steel	• / •	1
SW-WE-NS Pg48 ²⁾	87801254	Pg48	2.36	C		Sheet steel	• / •	1
Hole perforator (round) for Steel and stainless steel								
SW-WE-VA M16 ³⁾	87801224	M16	0.64	B		Steel and stainless steel	• / •	1
SW-WE-VA M20 ³⁾	87801226	M20	0.80	B		Steel and stainless steel	• / •	1
SW-WE-VA M25 ³⁾	87801228	M25	1	B		Steel and stainless steel	• / •	1
SW-WE-VA M32 ⁴⁾	87801230	M32	1.28	C		Steel and stainless steel	• / •	1
SW-WE-VA M40 ⁴⁾	87801232	M40	1.59	C	KDPR/F M40/xx	Steel and stainless steel	• / •	1
SW-WE-VA M50 ⁴⁾	87801234	M50	1.99	C	KDP/R M50/x, KDL/D-R M50/xx	Steel and stainless steel	• / •	1
SW-WE-VA M63 ⁴⁾	87801236	M63	2.50	C	KDP/R M63/x	Steel and stainless steel	• / •	1
SW-WE-VA Pg09 ³⁾	87801256	Pg09	0.60	B		Steel and stainless steel	• / •	1
SW-WE-VA Pg11 ³⁾	87801258	Pg11	0.73	B		Steel and stainless steel	• / •	1

SW-WE punching tools (round) (Continued...)



Type	Order No.	Di- men- sion	Punch- ing inch	Tension- ing screw Type	Cut-out for	Steel type	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
SW-WE-VA Pg13 ³⁾	87801260	Pg13	0.80	B		Steel and stainless steel	• / •	1
SW-WE-VA Pg16 ³⁾	87801262	Pg16	0.89	B		Steel and stainless steel	• / •	1
SW-WE-VA Pg21 ⁴⁾	87801264	Pg21	1.11	C		Steel and stainless steel	• / •	1
SW-WE-VA Pg29 ⁴⁾	87801266	Pg29	1.46	C		Steel and stainless steel	• / •	1
SW-WE-VA Pg36 ⁴⁾	87801268	Pg36	1.85	C		Steel and stainless steel	• / •	1
SW-WE-VA Pg42 ⁴⁾	87801270	Pg42	2.13	C		Steel and stainless steel	• / •	1
SW-WE-VA Pg48 ⁴⁾	87801272	Pg48	2.36	C		Steel and stainless steel	• / •	1
SW-WE-VA 30,5 ⁴⁾	87801231		1.20	C		Steel and stainless steel	• / •	1

¹⁾ suitable for sheet steel <= 2 mm (0.12 in)
²⁾ suitable for sheet steel <= 3 mm (0.12 in)
³⁾ suitable for steel and stainless steel sheets <= 2 mm (0.08 in)
⁴⁾ suitable for steel and stainless steel sheets <= 2.5 mm (0.08 in)

SPECIFICATIONS

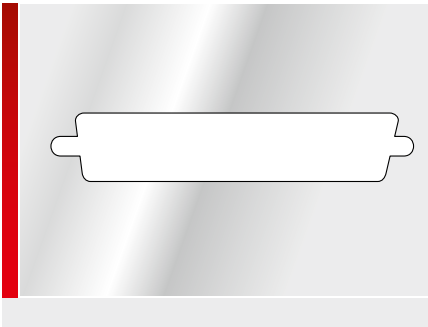
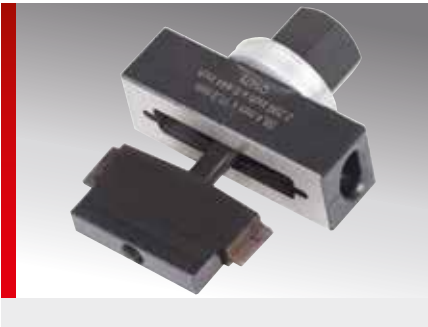


Steel



Courtesy of Steven Engineering, Inc - (800) 258-9200 - sales@steveneng.com - www.stevenengineering.com

SW-WD punching tool (SUB-MIN-D)



PRODUCT INFORMATION

Punching tool for creation of SUB-MIN-D plug cut-outs (9 to 50 poles). Simple and quick creation of these cut-outs, e.g. for connection of data transmission cables. Corresponding tension bolt is included in the delivery.

SPECIFICATIONS



Steel



Made in Germany

Type	Order No.	Tensioning screw Type	Punching for	Steel type	Pack qty.
Hole perforator for SUB-MIN-D plug					
SW-WD 9-pole ¹⁾	87801360	L	SUB-MIN-D 9-pole	Sheet steel	1
SW-WD 15-pole ¹⁾	87801362	L	SUB-MIN-D 15-pole	Sheet steel	1
SW-WD 25-pole ²⁾	87801364	L	SUB-MIN-D 25-pole	Sheet steel	1
SW-WD 37-pole ²⁾	87801366	L	SUB-MIN-D 37-pole	Sheet steel	1
SW-WD 50-pole ²⁾	87801368	L	SUB-MIN-D 50-pole	Sheet steel	1

¹⁾ suitable for sheet steel <= 2 mm (0.12 in)

²⁾ suitable for sheet steel <= 1.65 mm (0.06 in)

SW-ASN universal punching tool



PRODUCT INFORMATION

Universal punching tool for creation of various cut-out sizes and shapes. Tools with hole punch width 15 and 20 mm.

SPECIFICATIONS



Steel

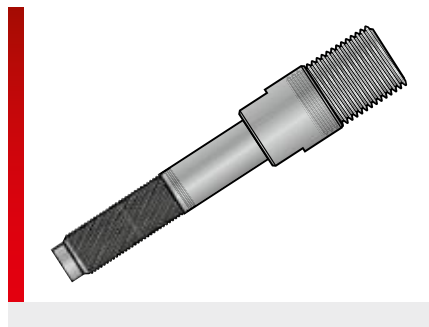


Made in Germany

Type	Order No.	Hole punch width inch	Hole punch Length inch	Hole diameter inch	Steel type	Pack qty.
Special ASN nibbling tool						
SW-ASN 15 ¹⁾	87801370	0.59	0.26	0.85	Sheet steel	1
SW-ASN 20 ¹⁾	87801372	0.79	0.35	1.12	Sheet steel	1

¹⁾ suitable for sheet steel <= 2 mm (0.12 in)

Spare parts list for punching tools



PRODUCT INFORMATION

Spare parts for the entire punching tool system.

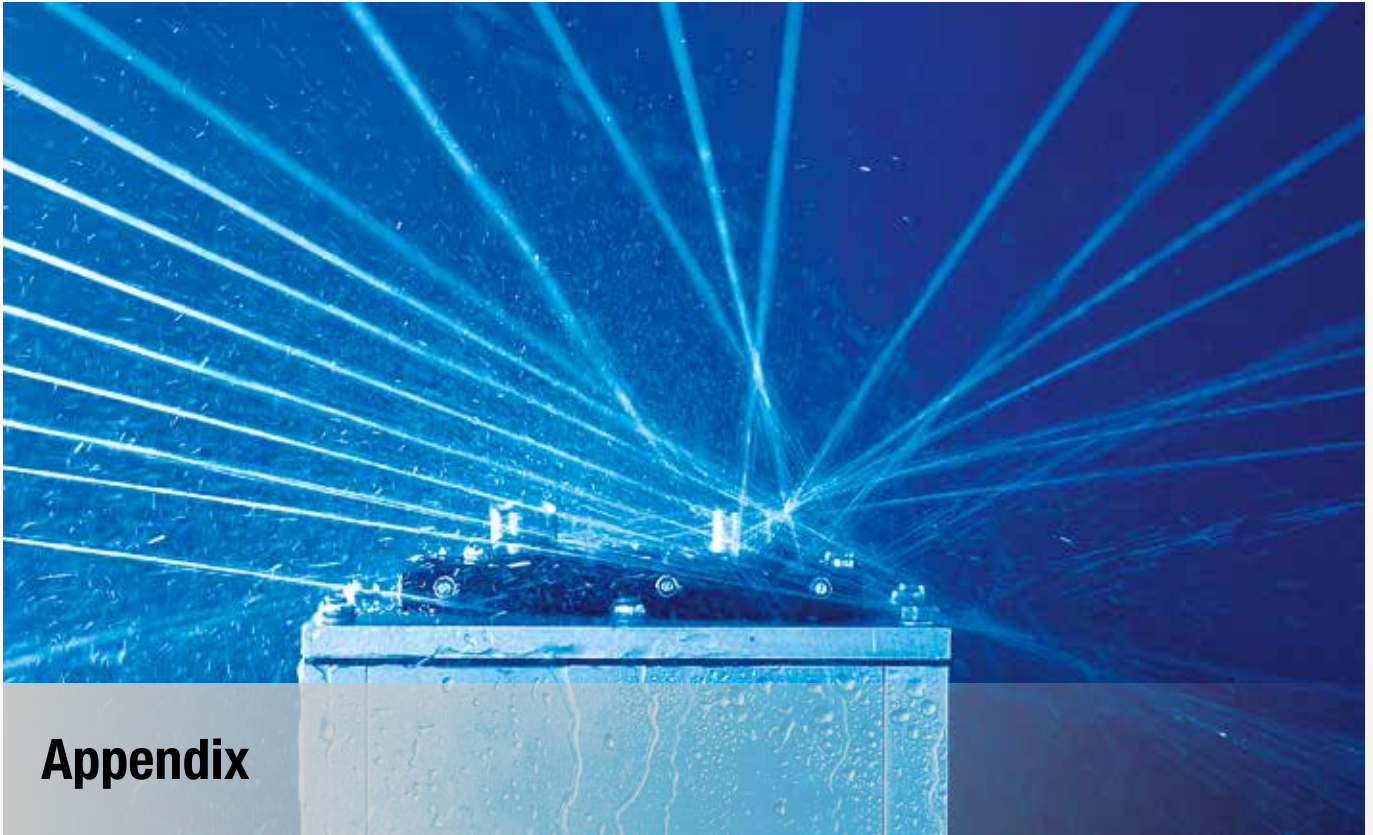
SPECIFICATIONS



Steel



Type	Order No.	Tensioning screw Version	Length inch	Pilot hole inch	Pack qty.
Tensioning screw					
SW-WE-ZS Type A	87801410	A	3.94	0.39	1
SW-WE-ZS Type B	87801412	B	3.94	0.45	1
SW-WE-ZS Type C	87801414	C	4.72	0.79	1
SW-WE-ZS Type D	87801416	D	6.50	0.94	1
SW-WE-ZS Type E	87801434	E	6.81	1.18	1
SW-WE-ZS Type F	87801436	F	5.55	0.79	1
SW-WE-ZS Type G	87801438	G	4.17	0.55	1
SW-WE-ZS Type H	87801440	H	3.43	0.39	1
SW-WE-ZS Type K	87801442	K	4.17	0.67	1
SW-WE-ZS Type L	87801444	L	3.43	0.39	1
Spacer bushing set					
SW-WS-DS 3-pce.	87801430				1
SW-WS-DS 5-pce.	87801432				1
Pre-drill					
SW-WE-VB 0.39 inch (10.0 mm)	87801420				1
SW-WE-VB 11.0 mm	87801422				1
SW-WE-VB 11.5 mm	87801424				1
Replacement stamp for special nibbling tool					
SW-ASN 15 stamp	87801374				1
SW-ASN 20 stamp	87801376				1



Protection classes in accordance with DIN EN 60529

An important element for housings is protection of integrated elements against drilling, foreign particles and water. The various protection properties are divided into IP classes (IP = international protection). The framework conditions that a protection class must guarantee are laid out in DIN 40050 and IEC-EN 60529.

IP protection classes are indicated through a two digit code (IPXX). The first digit indicates protection against contact and foreign particles, the second the water protection factor. Accordingly the class IP65 is completely protected against contacts, dustproof (1st digit = 6) and is protected against jets of water from a nozzle in all directions (2nd digit = 5).

First index number	Contact protection	Foreign particle protection	Second index number	Brief description	Water protection
0	No protection		0	No protection	
1	Protected against solid foreign objects of 50 mm (1.97 in) and larger	The object probe, a sphere of 50 mm (0.49 in) in diameter, must not fully penetrate. 	1	Protected against vertical falling drops of water	Drops which fall vertically must not have any harmful effect. 
2	Protected against solid foreign substances of 12.5 mm diameter and above	The object probe, a sphere of 12.5 mm (0.49 in) in diameter, must not fully penetrate. 	2	Protected against diagonally falling (up to 15°) drops of water	Drops which fall vertically must not have any harmful effects if the housing is inclined at an angle of up to 15° at either side of the perpendicular. 
3	Protected against solid foreign substances of 2.5 mm diameter and above	The object probe of 2.5 mm, shall in no way penetrate. 	3	Protected against diagonally falling spray (up to 60°)	Water which is sprayed at an angle of up to 60° from either side of the perpendicular must not have any harmful effects. 
4	Protected against solid foreign substances of 1.0 mm diameter and above	The object probe of 1.0 mm, shall in no way penetrate. 	4	Protected against spray from all directions	Water splashing against the enclosure from one direction shall have no harmful effect. 
5	Dust-protected	The ingress of dust is not fully prevented; however, it must not penetrate to such an extent that satisfactory operation or safety are impaired. 	5	Protected against jets of water (nozzle)	Water which is sprayed in a jet against the housing from any direction must not have any harmful effects. 
6	Impervious to dust	No ingress of dust. 	6	Protected against strong water jets (flooding)	Water projected in powerful jets from any direction against the housing shall have no harmful effects. 
			7	Protected against the effect of temporary immersion in water	Water must not penetrate to an extent that will cause harmful effects if the housing is temporarily submerged in water under pressure and under time conditions. 
			8	Protected against the effect of temporary submersion in water	Water must not penetrate to such an extent that it will cause harmful effects if the housing is permanently submerged in water. 
			9k	Protection against highly pressurized water/steam jet cleaning	IP x9K according to DIN 40050 Water jet at 0°, 30°, 60° and 90° Cycle: 30 seconds each Distance: 10 – 15 cm (3.94 – 5.91 in) Water volume: 14 – 16 liters (3.70 – 4.22 gal) per minute Water temperature: 80 °C +/- 5 °C (176 °F +/- 9 °F) Water pressure: 80-100 bar 

Description of fire classifications according to UL 94

FIRE CLASSIFICATION HB

The material burns slowly in the horizontal combustion test. The rate of combustion must not exceed 3 inches/min. for wall thicknesses of up to 3 mm (0.12 in), and 1.5 inches/min. for wall thicknesses over 3 mm (0.12 in). Any materials exceeding these combustion rate limits are not registered by UL.

FIRE CLASSIFICATION V2

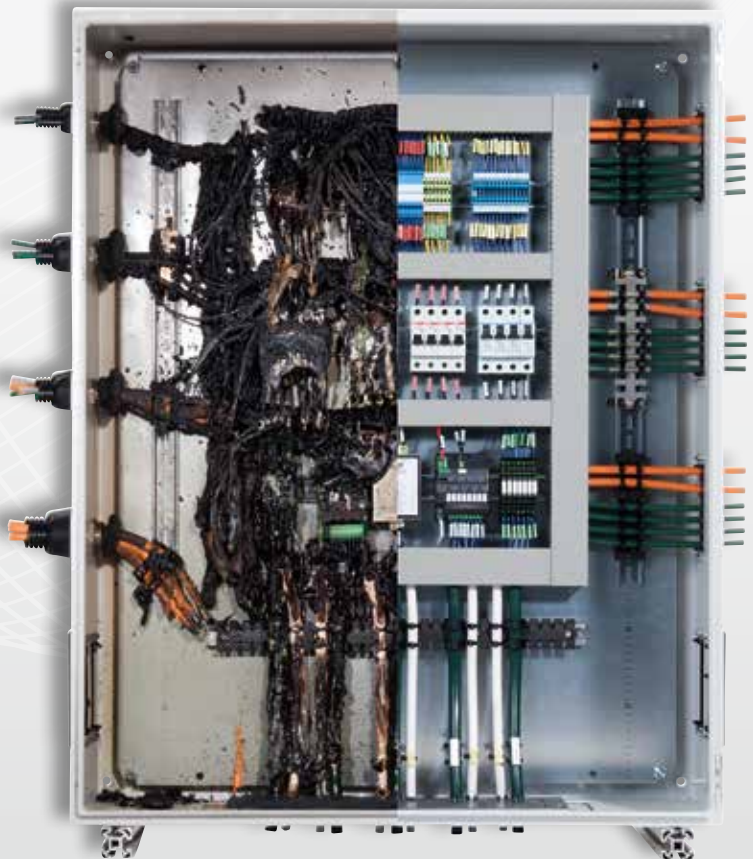
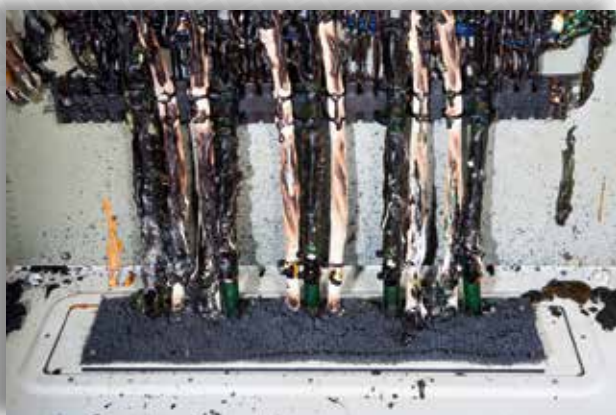
In the vertical combustion test, self-extinguishing must occur after an average of 25 seconds (individual values not to exceed 30 seconds). Any dripping material may ignite cotton wool located underneath. However, any afterglow must not exceed 60 seconds.

FIRE CLASSIFICATION V1

In the vertical combustion test, self-extinguishing must occur also after an average of 25 seconds (individual values are not to exceed 30 seconds). However, any material dropping off must not ignite cotton wool placed underneath. Any afterglow must not exceed 30 seconds.

FIRE CLASSIFICATION V0

In the vertical combustion test, self-extinguishing must occur after an average of less than 5 seconds (individual values not to exceed 10 seconds). However, any dripping material must not ignite the cotton wool and any afterglow must not exceed 30 seconds.





General information



Approved for EU railways



CSA approval



EX approval



UR approval



CURUS approval



General technical data
Additional information



CE (EU Directive 765/2008)



RoHS (EC Directive 2002/95/EC)



WEEE (EC Directive 2002/96/EC)

MATERIALS

The use and combination of widely varied materials like plastics of all types, elastomer or metals means that Murrplastik products can be used in a variety of situations.



CHEMICAL PROPERTIES

Reactions with chemical substances differ according to the individual plastics and elastomers.



FIRE BEHAVIOR

Self-extinguishing materials and material alloys allow for the use of plastics in critical areas.

The products or the raw material are usually certified and classified according to UL 94.



TEMPERATURES SPECIFICATIONS

The temperature ranges quoted for the individual products must be noted in application.



APPROVALS

Our products boast a large number of approvals and certifications, e.g. GL, UL/UR, CSA, DIN EN. Note the specifications in the catalog and product data sheets.



IP PROTECTION CLASS

The IP protection class indicates the tightness of products against solids and water.

The values are also related to static applications. With dynamic applications, the protection class may change.



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MMH	1040
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SBB	1015
SC-EMV	960
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