



**Cable entry system
Type KDL/C and KDL/D**

Ordering chart shown from page 76
Selection table shown from page 36



**Cable entry system
Type KDL/H**

Ordering chart shown from page 80
Selection table shown from page 40



**Cable entry system
Type KDL/E**

Ordering chart shown from page 86
Selection table shown from page 42



**Cable entry system
Type KDL-Jumbo**

Ordering chart shown from page 96
Selection table shown from page 46



**Cable entry
Type KDL/M**

Ordering chart shown from page 100
Selection table shown from page 48



**KDP cable entry plate,
plastic, rectangular**

Ordering chart shown from page 106
Selection table shown from page 50



**KDP cable entry plate,
plastic, round**

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**Cable entry plate
Type KDP, metal, cablequick®**

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**Cable entry membranes
Type KDM**

Ordering chart shown from page 142
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**Cable entry plates
for railway technology**

Ordering chart shown from page 146
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Cable entry- and cable retaining systems

SPECIFICATIONS



Thermal properties
Application range



Material properties
Product Components



Fire behavior
Fire classification



General technical data
Additional information



Protection rating
International Protection

COMPLIANCE WITH



RoHS (EC Directive 2002/95/EC)

APPROVALS AND OPERATING PERMITS



Approved for EU railways



CSA approval



EX approval



GL approval
Germanischer Lloyd



UR approval



CURUS approval



Solutions for cable applications



KDL – ENTRY SYSTEM FOR CABLES WITH CONNECTORS

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

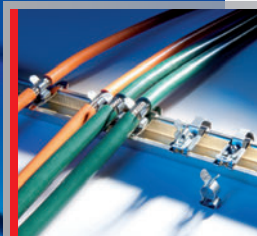
from page 76



KDP – 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 106



EMC SOLUTIONS

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

from page 155



STRAIN RELIEF / CABLE FIXING PLATE

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

from page 182



"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 202



ACCESSORIES FOR CABLE ENTRY PLATES AND RETAINING SYSTEMS / WERKZEUG 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.

from page 208



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International expertise



BY PROFESSIONALS FOR PROFESSIONALS

Over the last 25 years Murrplastik has developed a multi-line cable entry and retaining system unrivaled in its diversity and practicality.

The focus of our engineering team has always been durability, simple and time-saving assembly and disassembly, small footprint and the ability to realize high levels of packing density.

Murrplastik cable entry plates and retaining systems are compatible with the control cabinets of all leading manufacturers.

They are perfect for the robust applications needed in industrial environments and, depending on the model or version, for EX-hazards or areas with potential fire hazards.

All the systems can be equipped with the highest levels of IP and EMC protection upon request and are also offering all the approvals and certificates for international use.

A LA CARTE

Cable entry and retaining systems by Murrplastik make it possible to route and secure pre-assembled cables and pneumatic lines of all sorts at control cabinets and housings. A large part of all Murrplastik cable entry plates can be mounted completely without tools.

THE MURRPLASTIK PORTFOLIO AND ACCESSORIES FROM A TO Z:

- Cable entry plates, as splittable systems, facilitate the routing of pre-assembled cables with connectors.
- Cable entry plates for cables without connectors are the alternative to cable fittings and make efficient mass production possible.
- KDP On Demand is the first global cable entry system that can be completely customized and configured remotely.
- Cable fittings in a variety of sizes, made of plastic or metal. For EMC applications and for EX-hazardous areas.
- The extremely comprehensive accessories program contains everything from adapter plates to blanking connectors, fire-walls, lock nuts, thread expanders, tools and punching tools for exact punch-outs, all the way through to strain relief.

GLOBAL SALES NETWORK

Branch offices

- China
- Denmark
- Germany
- France
- Italy
- Austria
- Switzerland
- Spain
- USA

Distribution network

Alongside our own locations we are represented in many countries all over the world by our distributors. The most current list can be found at www.murrplastik.de.





Overview



KDL – ENTRY SYSTEM FOR CABLES WITH CONNECTORS

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

Applications:

interior use, driver's cabs, in the control cabinet, in plant or machine construction. Everywhere where pre-assembled cables have to be routed.



KDP – ENTRY SYSTEM FOR CABLES WITHOUT CONNECTORS

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

Applications:

interior use, driver's cabs, in the control cabinet, in plant or machine construction. Wherever quick, easy and cable protecting routing with high packing density are in demand.

SOLUTIONS FOR CABLE APPLICATIONS

Murrplastik Systemtechnik GmbH has offered cable entry systems, cable entry plates, strain relief systems, cable retaining systems and EMC solutions for many years now. Right from the beginning priority was given to a systematic approach. The priority today is, as it has always been, to design "products which provide definite application advantages to the customer".

The KDL cable entry system has been developed to make it much easier for end customers to route pre-assembled cables e.g. measurement, servo cables, computer cables and bus systems. During the design process, considerable emphasis was given to the need for a simple and trouble-free application.

For EMC-capable fixing systems, Murrplastik offers a very extensive portfolio of products dedicated to making assembly as easy as possible.

A further innovation is the KDP/F cable entry plate, offered as a low-cost alternative to the KDP/N variants established in the market.

Featuring rapid installation, the KDP models offer tremendous potential savings. A lower footprint and user-friendly assembly are two of the key advantages offered by these products. However, these are just some of the outstanding innovations from Murrplastik Systemtechnik GmbH.



EMC SOLUTIONS

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

- high attenuation performance
- easy assembly
- cable-friendly contact system
- very high packing density
- visible contact area

ZL STRAIN RELIEF

The strain relief plate is used wherever the strain on cables, single wires or hoses must be securely and easily relieved.

- wide variety of types
- easy assembly
- plastic or metal
- stackable



KDL Cable entry systems for cables with connectors

CABLE ENTRY SYSTEM

Cable entry system for insertion and/or feed-through of pre-fabricated conduits.
Cables with connectors can easily be inserted into enclosures.
Various systems are available for selection.



KDL/D

The KDL/D, as the KDL/C, offer a high packing density with fully-upgradeable installation. An extra center strut makes the frame even more durable.



IP65



UL Approval



UL 94 V0



KDL/C

KDL/C combines a high packing density with easy, fully-upgradeable installation. For more demanding environments, this model can be upgraded using KDL/D at any time.



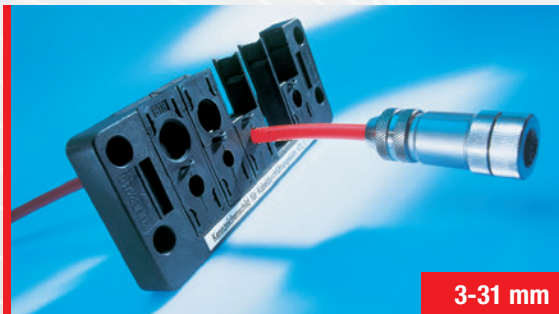
IP54



UL Approval



UL 94 V0



KDL/E

The KDL/E reflects continuing development of the KDL in its 3rd generation. Pre-fabricated cables can be inserted even more simply and quickly, e.g. into enclosures. Quicker assembly with increased capacity.



IP54



UL Approval



GL Approval



UL 94 HB



KDL/H

KDL/H is manufactured in a zinc die-cast process and is designed for feed-through of pre-assembled cables. It distinguishes itself through its especially strong construction and high degree of tightness, all the way to IP 69K.



up to IP69K



UL 94 V0



KDL/S

The KDL/S is a custom cable entry system. It is manufactured to meet the customer's specifications. Large variety of conduit shapes can be inserted using this strip.



IP54



UL 94 HB



KDL-JUMBO

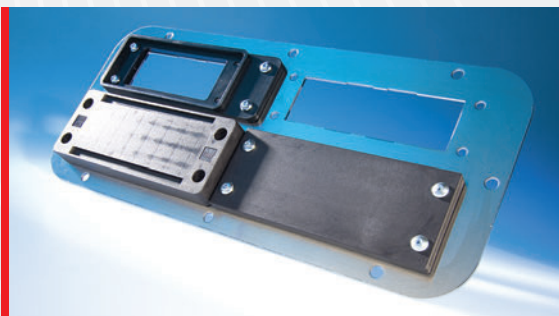
KDL-Jumbo is a cable entry system offering fully-retrofitted installation for conduits measuring 30–65 mm (1.18 – 2.56 in) in diameter. (1 mm = 0.04 in)



IP65



UL 94 V0



ACCESSORIES

Blanking plates, adapter plates and discharge plates round out the delivery program.

ADVANTAGES

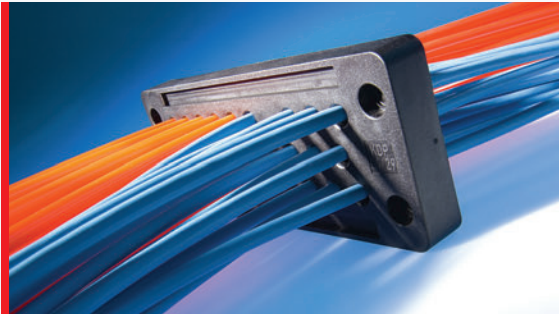
- Uninterrupted cable entry
- Easy assembly
- Strain relief
- EMC solutions
- High protection class to IP 69K
- High packaging densities
- Optional labeling
- Does not invalidate manufacturers' system warranty for cables with connectors
- Standard cut-out dimensions (Harting, Wieland connectors)
- UR
- CSA
- GL



KDP cable entry plates for cables without connectors

CABLE ENTRY PLATE

The cable entry plate is an entry and fastening system for cables without connectors and for pneumatic conduits such as those used in control cabinet, plant or machine construction. Wherever quick assembly, cable-protecting and high packing density are required, the cable insertion system is used. A real alternative to cable fittings. Various systems are available for selection.



KDP PLASTIC RECTANGULAR

Rectangular plastic cable panels for screwing in or snapping in using integrated catch hooks. With pre-punched and resealable openings.



IP65



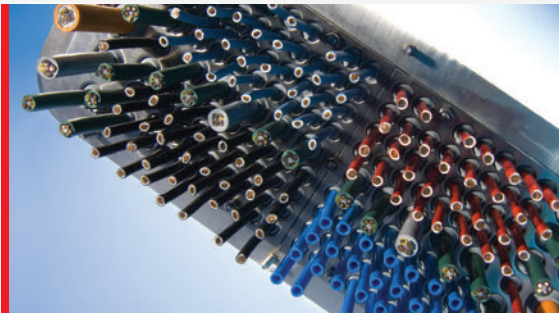
UL Approval



GL Approval



UL 94 HB



CABLEQUICK® KDP METAL

Rectangular cable entry plates made of aluminum, steel or stainless steel for screw fastening. With pre-punched and resealable openings.



IP65



UL Approval



UL 94 HB



KDP PLASTIC ROUND

Round plastic cable panels with metric threads for screwing in or snapping in using integrated catch hooks. With pre-punched and resealable openings.



IP65



UL Approval



GL Approval



UL 94 HB



KDP/F

Cable entry plate with molded-on membrane for punching through. Available in a very flexible model as well as with different grades of hole reinforcements.



IP65



UL 94 HB



KDP ON-DEMAND

Die "KDP On Demand" is manufactured individualized, as requested by the customer. Size and shape of the cut-outs, hole pattern, number of planned cable entries, cable diameters, etc. can all be freely selected.



KDP MULTI

Rectangular plastic cable entry plates for screwing in or snapping in by using the enclosed catch hooks. Additional slot for up to 8 pre-assembled cables.



KDM

Cable entry membrane to be punched through, for example, by cables without connectors and pneumatic hoses. Rounded design, M16–M50 available.



KDP/H

Plastic conduit connector for direct connection of Murrflex cable protection conduits to the rectangular KDP/N cable entry plates, as well as to KDL/C and KDL/D cable entry systems.



ADVANTAGES

- Huge time savings during assembly
- Extremely low space requirements
- High packaging densities
- Assembly without tools
- High protection class to IP 66/67
- No kinks in cables or hoses
- Standard cut-out dimensions
- Optional labeling
- High packaging densities
- Ensures a tight seal
- UR
- CSA
- GL



ZL Cable strain relief

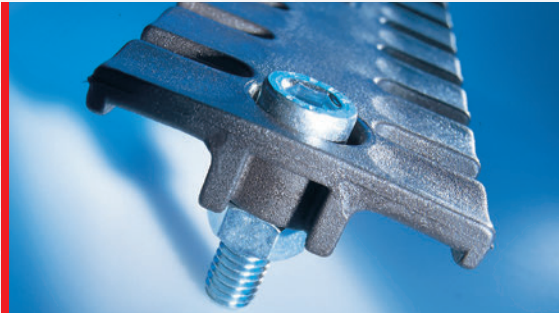
STRAIN RELIEF AND ORGANIZATION OF CONDUITS – QUICKLY, SIMPLY, SAFELY.

A large selection of strain relief plates covers a variety of potential uses. Various types are available for screw on, snapping in or sliding in. Whether in plastic or metal versions, or as EMC solutions. Anything is possible. The lines are simply fastened to the strain relief using standard cable ties.



ZL TENON BLOCKS

The ZL versions with pre-assembled tenon blocks are mounted on C-rails with a range of profile section widths.



ZL SCREWS

ZL strain relief systems are bolted-on directly and are ideal for routing or providing strain relief for cables and hoses.



ZL-FIX

The ZL-Fix Velcro holders can be bolted on directly or mounted on a rail groove. They are ideal for bundling or providing strain relief for cables and hoses.



KAF

The cable fixing plates are simply slotted onto a 35 mm top-hat rail or C-rail (Niedax 2970; 2971); no tools are required.



ZL ACCESSORIES

Some examples of accessories include brass spacer sleeves and insert bushings, which then enable the strain relief systems to be stacked.

ADVANTAGES

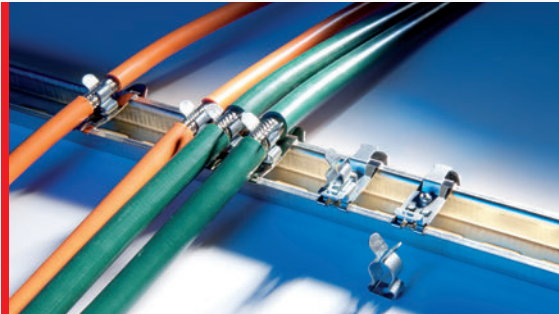
- Simple to use
- Cost-effective
- Broad range of models
- Quick assembly
- High traction
- EMC variants
- Stackable



EMC solutions

ELECTROMAGNETIC COMPATIBILITY

As electronic components continue to grow more numerous, the overall volume of electromagnetic radiation is also increasing. The integration of a sound shielding plan is fast becoming essential. Murrplastik offers a comprehensive range of EMC-related products.



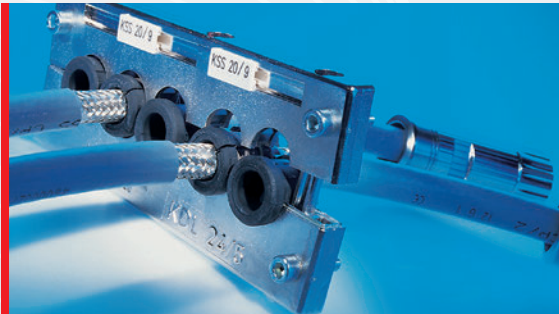
EMV-CLIP (UP TO 55 DB)

The EMC shield clips are an excellent solution for dissipating conducted fault currents. The system is characterized by its simple, flexible handling, a large-area contact system that is cable-friendly and for its highly compact form.



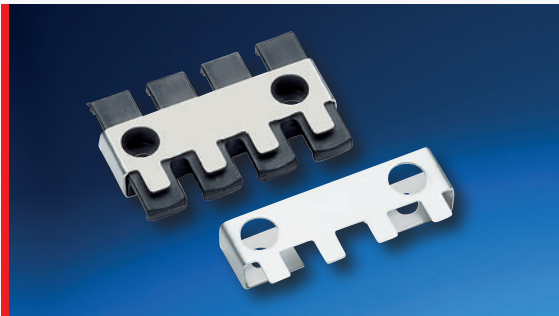
EMV-KDP

The EMC modules are used in conjunction with the KDP/N, KDP/X and KDP/E cable entry plates. They are simply bolted onto the interior surface of the cabinet.



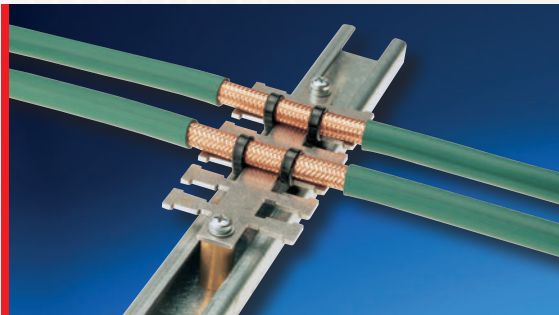
EMV-KDL

The KDL-EMV cable entry system is a splittable system for retrofitting. The system is based on our plastic KDL model and is metalized on the surface.



EMV-ZL

ZL-AB discharge plates are slide-mounted onto our ZL strain relief plates as an upgrade. Supply lines are secured using cable ties.



EMV-KAF

The metal KAF/xx-EMV cable fixing plates are either bolted-on directly or snapped onto the 35 mm (1.38 in) top-hat rail. Cables are fixed in place using cable ties.



EMC DISCHARGE PLATE

The KDL-AB and KDL/N-AB model discharge plates are an excellent choice for fault current dissipation in combination with our cable entry system.

ADVANTAGES

- Cable-friendly 360° shield contacting
- Large contact area with short distance
- Very easy assembly
- Very compact and slim design
- Clearly visible contact area
- Housing is made from V2A stainless steel (no upcharge for metalizing)
- Great attenuation performance



Cable fittings



"M-SEAL" SERIES

Our "m-seal" series is available in different versions: **Metal (normal and long thread), plastic (gray and black) and EMC.**

These cable fittings are available with a clamping range from 3.0 to 44.0 mm (0.12 to 1.73 in), thread shapes PG09 – PG48 and M12 – M63. One of the outstanding features of the "m-seal EMC" cable fitting is its simple and quick assembly.

It meets the most challenging technical requirements, with excellent shielding values that are achieved even in the presence of vibration (spring-action contact surfaces ensure optimum contact with the cable shield at all times).

Naturally, the m-seal series does have the most important approvals (CSA, UL, VDE) for cable fitting systems.

ADVANTAGES

- EMC applications / connection using new technology
- High strain relief
- Easy and quick assembly
- Very good price-performance ratio



CSA



UL Approval



UL 94 V0



M-SEAL PLASTIC

Plastic cable fittings made of high-quality PA 6 plastic in black and gray with metric and PG threading.

- IP 68
- 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262



M-SEAL METAL

Nickel plated brass threaded cable fittings
The metric and PG thread variants are also available in a long version.

- IP 68
- 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262



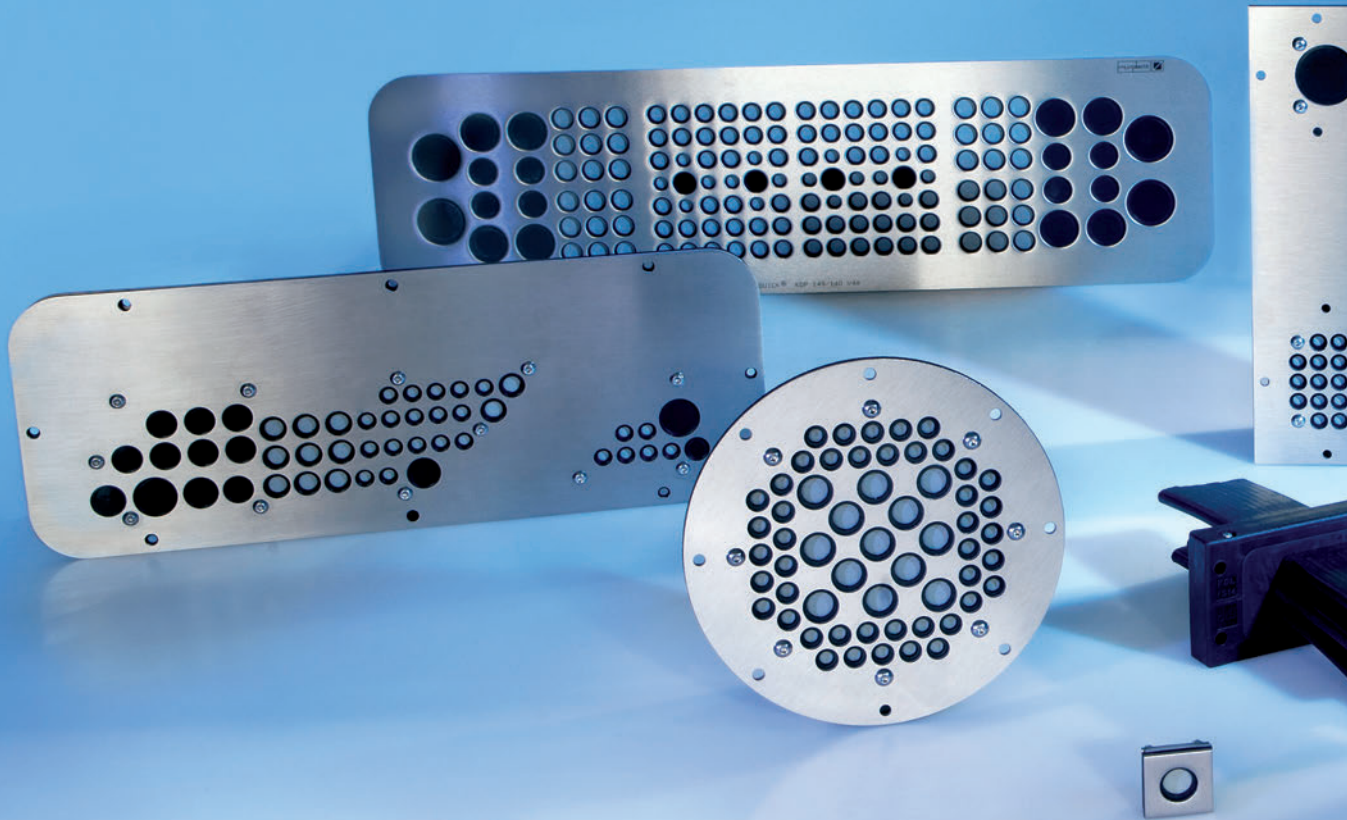
M-SEAL EMC

Nickel plated brass cable fittings with integral connection for shielded cables. A novel system of contracts provides excellent sinking values, even when vibration is present.

- IP 68
- 5 bar
- VDE / UL / CSA
- Strain relief according to DIN EN 50262
- Easy assembly for shielding components



KDP on Demand – Your customized cable entry plates



ANY NUMBER OF CABLE ENTRY VARIATIONS CAN BE REALIZED UPON REQUEST

Whether octagonal, round or oval, whether 1 x 1 cm (0.39 x 0.39 in) or 1.5 x 3 m (1.64 to 3.28 yd / 4.92 to 9.84 ft), whether for 111 cable entries and/or 888 cable fittings, whether for cables with or without connectors, whether for ribbon cables, electric high-power lines or pneumatic hoses, or for any combination of the above:

With the "Cable Entry on Demand" Murrplastik Systemtechnik offers the first cable entry system that is completely customizable in terms of size, shapes and features. Configuration can be done online at www.mp4you.de in just a few steps or alternatively by submitting a CAD drawing.

In just 24 hours, the customer is able to receive a design drawing accompanied by an offer. A few days later the "KDP On Demand" is delivered "just in time" - and this service is available from a lot size of just five.

The "KDP On Demand" is manufactured individually as requested by the customer. Size and shape of the cut-outs, the hole pattern, the number of planned cable entries, cable diameters, etc. can all be freely selected. The KDP will be completely customized to your requests.



**INNOVATIVE PRODUCTION USING
A HIGHLY FLEXIBLE MANUFACTURING PROCESS**

The "KDP On Demand" can for instance be constructed in a sandwich process from V2A stainless steel or PE. This will give the "KDP On Demand" a high degree of rigidity with just minimum thickness.

The highly flexible manufacturing process has the advantage that all sizes and shapes can be freely presented and done with the added plus of an almost burr-free vertical cut. Even complex cut-outs, filigree structures and thin cross bars can be realized with ease.

Also important: Material distortion is hardly ever an issue with this procedure. "KDP On Demand" can be made of materials other than V2A stainless steel or PE.



KDP on Demand – Your customized cable entry plates



CUSTOM PRODUCTION >> STANDARD SERIES QUALITY >> UP TO IP 69K >> PRODUCTION FROM 5 PIECES >> ANY SHAPE IS POSSIBLE >> CLOSE TO STANDARD-SERIES PRICING

A CABLE ENTRY PLATE FOR ANY TASK

The "KDP On Demand" advantages for day-to-day industrial needs are tremendous: Actually, there is no longer a need for high inventory levels of various entry plates and their cataloging with part numbers. The industrial user ultimately does not need to concern him/herself with the proper fit of a cable entry plate:

The "KDP On Demand" is our one-stop solution for any number of "cable entry challenges".

REQUEST, ORDER & DELIVERY WITHIN JUST A FEW DAYS

The "KDP On Demand" can be configured remotely in just a few steps on our MicroSite www.mp4you.de. You may also submit a CAD drawing with all the technical specifications online.

Details, such as specifications of the desired cut-out sizes and shapes, the hole pattern, the number of cables to be fed in, and all the required information about cable diameters may be transferred in this way.

Furthermore, additional information about the throughput of pre-assembled cables, an added strain relief or a firewall is always available.

Last but not least you will need to define the type and size of fastening mechanism or the housing seal you will require. Murrplastik is able to deliver a drawing and the corresponding offer within one working day. After the production order has been issued, the delivery will take place within 10 working days.

TECHNICAL SPECIFICATIONS

Materials

- V2A stainless steel
- PE 300 plastic

Plate size

- min. 10 x 10 mm (0.39 x 0.39 in)
- max. 3000 x 1500 mm (118.11 x 59.06 in)

Forms

- it's all possible

Rating

- max. \varnothing 50 mm (1.97 in)
- min. \varnothing 1 mm (0.04 in)

Assembly method

- screw-fastened

Tightness

- to IP 69K

System

- With high degree of strain relief
- Low degree of strain relief / cable can be fed in from either side

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CUSTOM
CONFIGURATION



DESIGN &
PROPOSAL



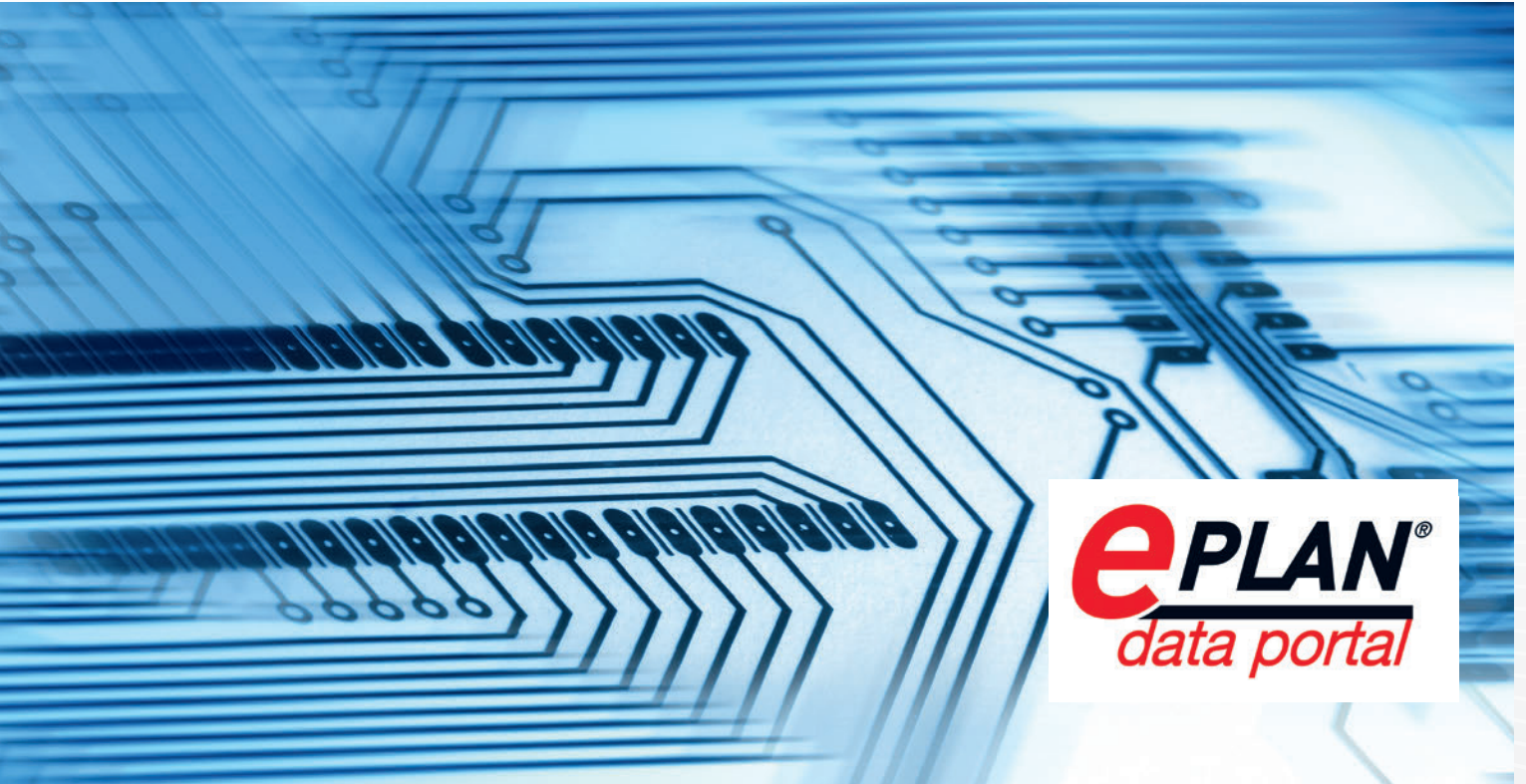
PLACING
THE ORDER



QUICK
DELIVERY



EPLAN Data Portal



EPLAN SOFTWARE & SERVICE

EPLAN Software & Service has developed CAE solutions and provides consulting services for companies with the goal of optimizing their engineering processes.

The customer benefits from this increase in product development efficiency as a result of standardized procedures, automated processes and consistent workflows. EPLAN delivers customized concepts for system implementation and setup, as well as tailor-made integration into the IT/PLM system landscape, based on standard engineering solutions.

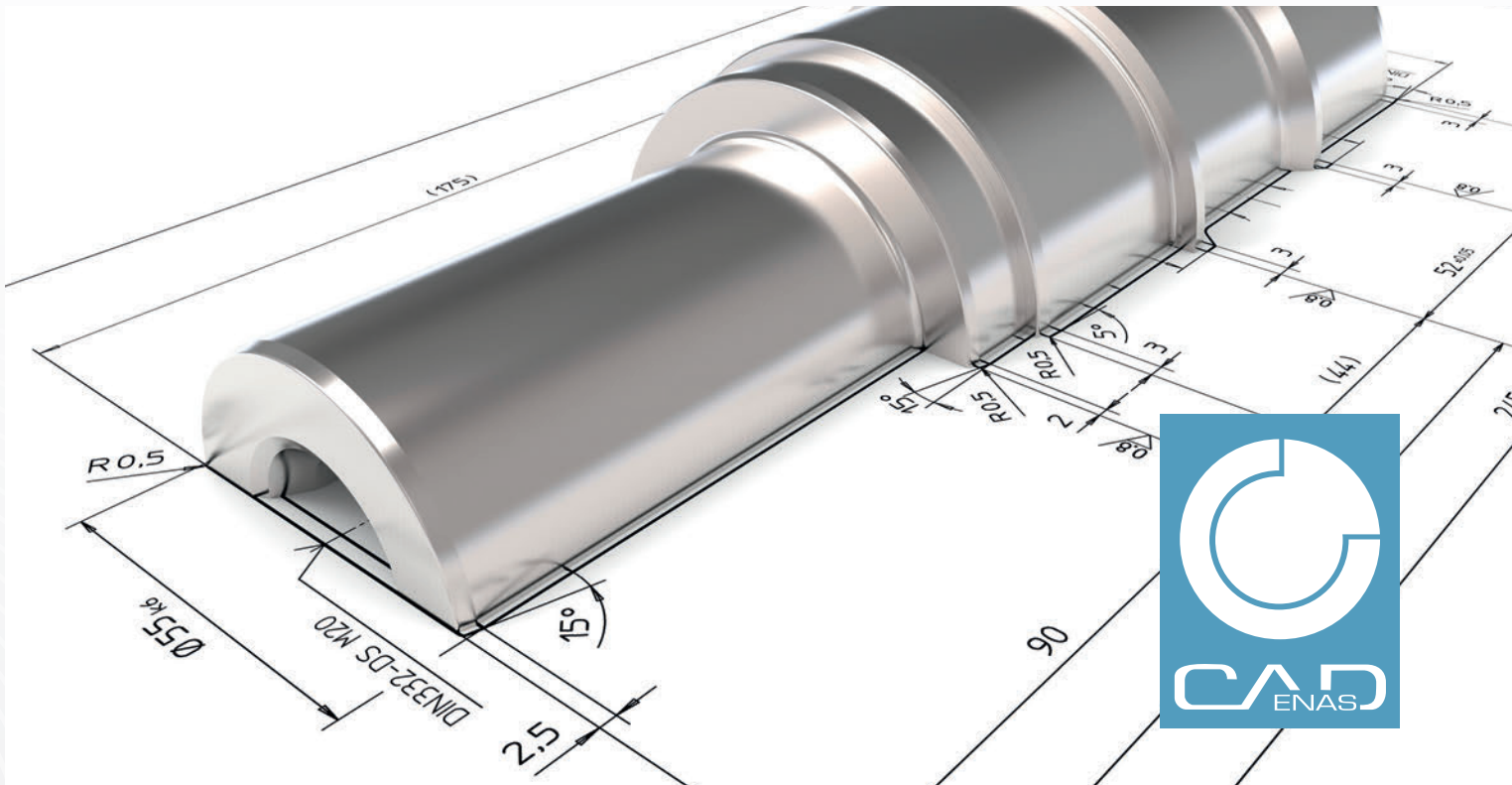
The service portfolio also includes customization, consulting and training. Developing individual and standardized interfaces to ERP, PDM and PLM will ensure data consistency in the product development process. Thorough customer orientation, global support and innovation expertise in development and interfaces are clear trademarks of their success.

EPLAN is part of Rittal Software Systems and therefore a member of the Friedhelm Loh Group, which is well known for continuity and investment security.

EPLAN DATA PORTAL

EPLAN Data Portal is an integrated, online data platform supplying up-to-date product specifications of leading component manufacturers for the direct application in planning with EPLAN software solutions.

CADENAS



MORE ABOUT CADENAS GMBH

CADENAS is a leading software provider in the areas of Strategic Parts Management and reduction of piece parts (PARTsolutions), as well as electronic product catalogs (eCATALOGsolutions). The company and its customized software solutions has developed into the connecting link between the component manufacturers and their products, as well as their customers.

The name CADENAS (span. for process chains) with their 300 employees at 16 international locations has been synonymous with success, creativity, consulting and process optimization since 1992.

CADENAS has established many innovations and trends by being the initiator and by thinking ahead.

www.murrplastik.partcommunity.com

PARTsolutions Innovations:

PURCHINEERING The goal of this strategy is to optimize collaboration between the purchasing and engineering departments.

The intelligent approach to sourcing components: Search for geometric similarities, search by means of a 2D sketch, full text search, topology search, Cloud Navigator search, unprocessed piece/blank search, color search, partial search

eCATALOGsolutions Innovations:

Smart Parts: Intelligent 3D CAD models

3D CAD Model App – Mobile access to millions of 3D CAD models

PARTcommunity Embedded – Seamless integration of the 3D-CAD-Download portals into a company's website

Smart Catalog – The printed catalog goes digital

ePRODUCTplacement – Setting aside the right part at the right time and for the right person.

Supporting Augmented Reality-Technology Engineering Knowledge Database and Engineering Challenges



Rail technology – Murrplastik Clears the Way



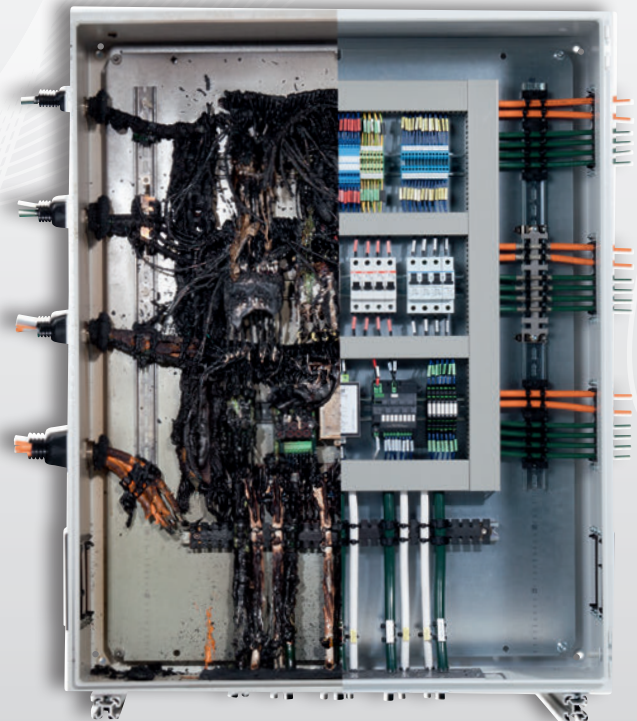
**Inspection to
EN 45545-2:2013
with room
integrity**

MURRPLASTIK AS ONE OF THE LEADING MANUFACTURERS OF:

- Cable protection conduit and fitting systems
- Cable retaining systems
- Cable entry systems
- Labeling systems
- Cable drag chain systems

has explored the challenges of the new EN Norm 45545 early on. By the end of 2013 the Murrplastik product range could be tested according to the new EN-standard, building on the experiences gained during the tests to the national standards. The people responsible at Murrplastik realized from the very beginning that only the HL3 values, (highest ranking) i.a.w. the hazard level table, could be considered for Murrplastik products, in order to ensure the highest degree of certainty to design engineers of the vehicle manufacturing industry.

Even for closing spaces (room integrity) according to DIN EN 1363-1:2012-10 for conduit fittings and cable entry systems, the requirements of $t = 20 \text{ min}$ (E 20) and $t = 30 \text{ min}$ (E 30) were heeded.



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ROOM INTEGRITY ACCORDING TO DIN EN 1363-1:2012-10

Special significance as per EN 45545-2:2013 has been put on room integrity as defined in DIN EN 1363-1:2012-10.

It defines over what period a control cabinet or a component must be fire proof. The RAB 30 room integrity strip, in conjunction with the M-Top fitting system, allowed Murrplastik to pass testing at the MPA Dresden. The requirement was a minimum of E20.

This ensures that a control cabinet or a component will meet the room integrity requirements as specified in DIN EN 1363-1:2012-10, when using RAB 30 and a M-Top fitting.

Rugged support brackets round out the system. They may be mounted linked together and therefore take up less space. Since their tops swivel or may be completely removed, they have clear installation benefits compared to the competition.

This product also meets the requirements of EN 45545-2:2013 3x HL3.



Cable protection conduit and screw connection systems

CABLE PROTECTION CONDUIT AND FITTING SYSTEMS

The products are utilized, wherever there are cable and lines to be protected against mechanical damage and to integrate them in control cabinets or components with the highest possible protection ratings. We developed the PAT series conduit especially for rail technology applications.

- **EWL-PAT**
flexible, lightweight version for static interior applications
- **EW-PAT**
flexible, medium weight version for static interior applications

All protective conduit meets the specifications of EN 45545-2:2013 with a Class R22 and R23 ranking according to hazard level 3x HL3.

The M-Top conduit fitting series is the system of choice for this area. The series was developed in collaboration with users from the railway technology sector.

Featured advantages of the conduit fitting systems:

- High level of tightness at IP 68 to 6 bar and at the same time IP 69 K without any add-on components to DIN EN 60529
- Resistant to vibration due to lockable cap nut
- Quick assembly: Insert conduit, screw top tight --> ready
- No parts can get lost > Delivered completely assembled.
- Clamping along entire circumference, ensuring maximum tensile strength

All fittings meet the specifications of EN 45545-2:2013 with a Class R22 and R23 ranking according to hazard level 3x HL3.

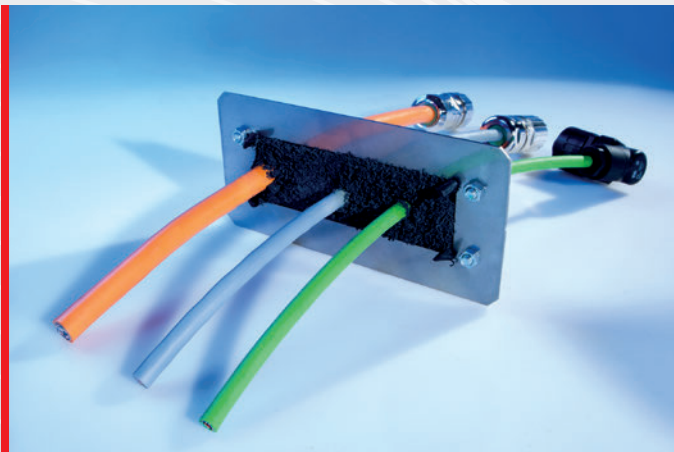
Rail technology – Murrplastik Clears the Way

CABLE ENTRY SYSTEMS

These systems are used wherever there is a high packing density of cables and lines that need to be led through control cabinets or component walls.

A large number of different lines with greatly varying diameters may be led through a very tight space through the walls of a control cabinet with a high degree of protection (IP 65). For instance, our plastic solutions have the dimensions of a 24-pin connector feed-through. The supply range does include a wide variety of diameters. The metal versions (aluminum or stainless steel) are manufactured to customer specifications. Even small runs are possible (KDP On Demand).

The cable entry system meets the room integrity requirements of DIN EN 1363-1:2012-10. The minimum requirement is E30. In this case, a special cable entry plate facilitates the room integrity. The material does not swell until a certain temperature is reached. The cable entry plate will remain unchanged until then and can be installed or removed as needed. Cable entry plates with the add-on designation of ...EN meet the requirements of EN 45545-2:2013 3x HL3.



Cable entry systems

CABLE RETAINING SYSTEMS

These retainers, also called "cable combs" facilitate the defined routing and mounting of cables and lines. With a variety mounting options:

- Screw-mount
- Mounting on top-hat rails
- Mounting on C-rails

this system has universal use for cable retention. Integral metal sheaths prevent the cold flow properties of plastic. The T-grooved block version facilitates quick and universal C-rail mounting. Fire protection properties were of high consideration here as well. All our cable retaining system products, ZL... and KAF..., are in compliance with the requirements of EN 45545-2:2013 3x HL3.

CABLE DRAG CHAINS - SYSTEM

These products are used wherever there are lines and cables that have to be flexibly guided.

For example, automatically opening battery trays and door controls. Upon request, these products may be manufactured of a material that meets the requirements of EN 45545-2:2013 3x HL3.



CABLE DRAG CHAINS - SYSTEM

LABELING SYSTEMS

The Murrplastik Systemtechnik labeling systems meet the standards of EN EN 60204 (VDE 0113 part1). This standard mandates the clear and durable labeling of wires, components, and terminals.

Our labeling products are part of the products described in EN 45545-2:2013, in table 2, section EL10. The materials used for our labels are PC and TPU for the labeling sleeves; they are halogen-free and categorized in fire classification V0 according to UL94.



Labeling systems

MURRPLASTIK SYSTEMTECHNIK GMBH PRODUCTS MUST MEET THE FOLLOWING VALUES IN ACCORDANCE WITH THE NEW EN STANDARD 45545:

- Toxicity to T 12 NF X70-100-1 and -2 600 ° C (1112 °F)
- Smoke-proof tightness to T 10.03 EN ISO 5659: 25 kWm²
- Oxygen index to TO1 EN ISO 4589-2:01

The values are recorded in the classes R 22 and R 23 depending on their portions. Classifications are according to Hazard Levels HL1; HL2; HL3. Hazard level HL3 is the class with the highest requirements.



Labeling systems

Abbreviations of requirements	Reference to test procedures	Parameter unit	Requirement, definition	HL1	HL2	HL3
R 22	T01 EN ISO 4589.2:01	Oxygen content Vol.-%	Minimum	28	28	32
	T10.03 EN ISO 5659-2: 25 kWm ²	DS max. no dimensions	Maximum	600	300	150
	T12 NF X70-100-1 and -2 600 °C (1112 °F)	CITNLP no dimensions	Maximum	1.2	0.9	0.75
R 23	T01 EN ISO 4589.2:01	Oxygen content Vol.-%	Minimum	28	28	32
	T10.03 EN ISO 5659-2: 25 kWm ²	DS max. no dimensions	Maximum	-	600	300
	T12 NF X70-100-1 and -2 600 °C (1112 °F)	CITNLP no dimensions	Maximum	-	1.8	1.5

Hazard Levels table



Selection tables
Cable Entry Systems
Cable entry plates





Selection tables for cable entry systems and plates

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?

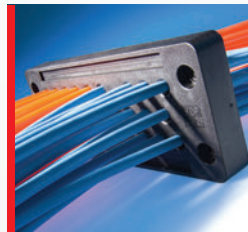
Get an overview of our systems and the corresponding accessories.



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 36



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

from page 50



Cable entry system Type KDL/H

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

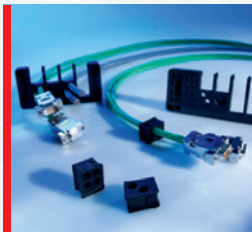
from page 41



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 58



Cable entry system Type KDL/E

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

from page 42



Cable entry plate Type KDP, metal, cablequick®

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

from page 60



Cable entry system Type KDL-Jumbo

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

from page 46



Cable entry membranes Type KDM

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

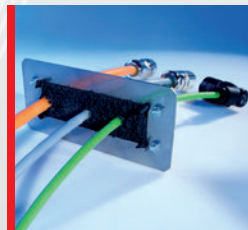
from page 68



Cable entry Type KDL/M

Splittable cable entry for cables with connectors and diameters of 3 – 31 mm (0.12 – 1.22 in).

from page 48



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.

from page 72

Overview of grommets for cable entry systems

POSSIBLE COMBINATIONS OF VARIOUS GROMMETS AND CABLE ENTRY SYSTEMS

The most varied combinations of cables and hoses 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.

						
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/X small	KDT/X small	KDT/Z jumbo	KDT/Z small
	KDT/ZE large	KDT/X large	KDT/X large			KDT/ZN large
Variable cable grommet	Grommets with variable diameter for round cables					
	KDT/VE small					
ASI-/USB cable grommet	Special grommets					
	KDT/ZE ASI small	KDT/X ASI large	KDT/X ASI large			KDT/ASI small
	KDT/ZE 2xASI	KDT/X 2xASI large	KDT/X 2xASI large			
		KDT/X-USB large	KDT/X-USB large			
Multi-line grommet	High-capacity grommets with several openings					
	KDT/ZE 2x/4x small	KDT/X 2x/4x small	KDT/X 2x/4x small	KDT/X 2x/4x small		KDT/Z 2x small
		KDT/X 2x/4x large	KDT/X 2x/4x large			
Conduit grommet	Grommets for the feed-through of cable protection conduits					
	SDT/ZE small					SDT/Z small
	SDT/ZE large					
Dummy grommet	Grommets for closing off unused slots					
	BTK/E small	BTK/X small	BTK/X small	BTK/X small	BT-Jumbo	BTK small
	BTG/E large	BTG/X large	BTG/X large			BTG/N large



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

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 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 2–12 mm (0.08 to 0.47 in)

Number of grommets: 4 (in ATG/X adapter grommet)

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: 8

KDT/X cable grommet

KDT/X 2x/4x multi-line grommet

BTK/X dummy grommet

Number of grommets: 12

KDT/X cable grommet

KDT/X 2x/4x multi-line grommet

BTK/X dummy grommet

B Large grommets 12–22 mm (0.47 to 0.87 in)

Number of grommets: 4

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: 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: 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: 0

Fitting grommets for all variants of KDL/C and KDL/D

A

Small grommets



KDT/X

B

Large grommets



KDT/X



KDT/X2x/4x



KDT/X2x/4x



BTK/X



BTG/X



KDT/X ASI



KDT/X-USB



ATG/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 design covers cable diameters of between 2 to 12 mm (0.08 to 0.47 in), the large design is for 12 to 22 mm (0.47 to 0.87 in) versions. The lengthwise slotted grommet, made of thermoplastic natural rubber is placed around the line and pushed into the grommet block.

MULTI-LINE CABLE ENTRY GROMMET

The KDT/X2x/4x multi-line cable entry grommet in their small version (for slots of type **A**) and in the larger 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.

DUMMY GROMMET

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

ASI CABLE BUSHING

The KDT/X ASI large 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.

USB CABLE GROMMET

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

ADAPTER GROMMET

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

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

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 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 2–12 mm (0.08 to 0.47 in)

Number of grommets: 3 (in ATG/X adapter grommet)
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

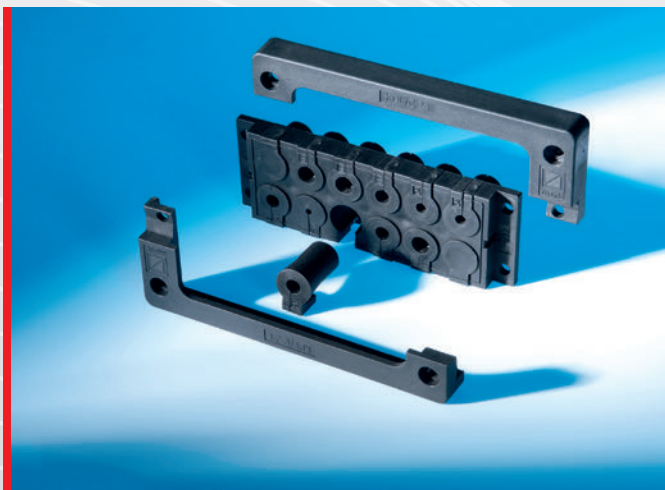
Number of grommets: 8
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTK/X dummy grommet

B Large grommets 12–22 mm (0.47 to 0.87 in)

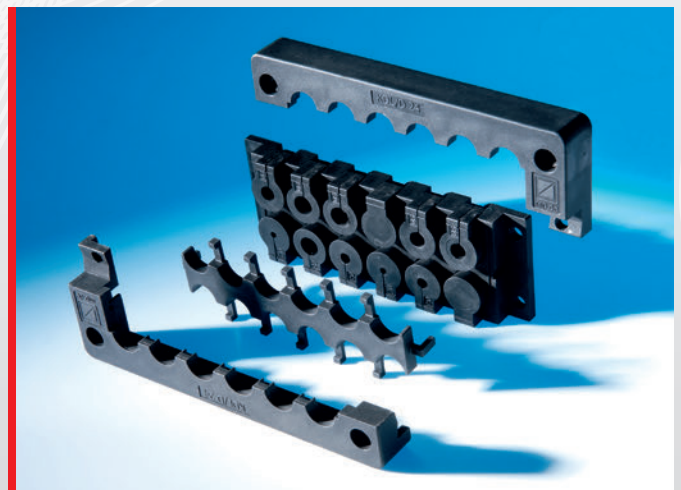
Number of grommets: 3
KDT/X cable grommet
KDT/X 2x/4x multi-line grommet
BTG/X dummy grommet
KDT/X ASI, ASI cable bushing
KDT/X USB USB cable grommet
ATG/X adapter grommet

Number of grommets: 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: 0



KDL/C: Two-piece frame plus grommet block



KDL/D: Three-piece frame plus grommet block

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

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 large 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 2–12 mm (0.08 to 0.47 in)

Number of grommets: 2 (in ATG/X adapter grommet)
KDT/X cable grommet
KDT/X 2 x / 4 x multi-line grommet
BTK/X dummy grommet

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

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

B Large grommets 12–22 mm (0.47 to 0.87 in)

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

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: 0



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, equipped with large 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. The KDL/D-R M50/4 is designed for installation into 50 mm (1.97 in) Ø circular cut-outs.

- X Number of grommets
- X Suitable grommets



A Small grommets 2–12 mm (0.08 to 0.47 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

B Large grommets 12–22 mm (0.47 to 0.87 in)

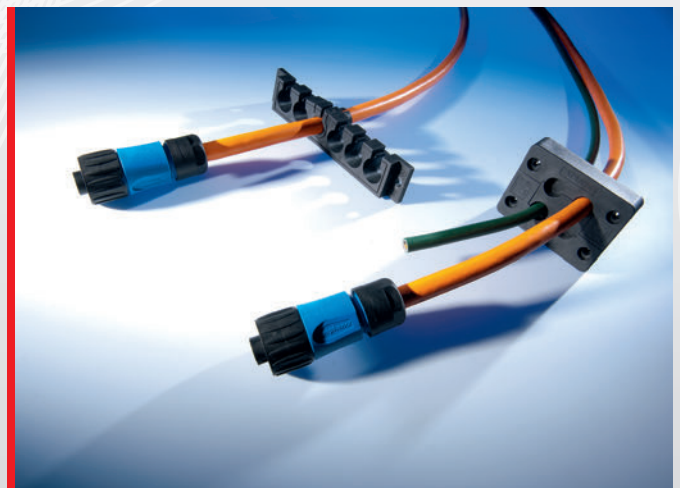
Number of grommets: 0

Number of grommets: 0

Number of grommets: 0



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 for cables with connectors

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The KDL/H cable entry system is manufactured in a zinc die cast version and facilitates the entry, sealing off and strain-relief for pre-assembled cables and hoses, e.g. in control cabinets and junction boxes. The clamping ranges for cables spans from 2 to 12 mm (0.08 to 0.47 in). 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.

<input checked="" type="checkbox"/> Number of grommets <input checked="" type="checkbox"/> Suitable grommets	A Small grommets 2–12 mm (0.08 to 0.47 in)	B Large grommets 12–22 mm (0.47 to 0.87 in)
 <p>KDL/H 24 Article number: 87141450</p>	<p>Number of grommets: 12</p> <p>KDT/X cable grommet</p> <p>KDT/X 2x/4x multi-line grommet</p> <p>BTK/X dummy grommet</p>	<p>Number of grommets: 0</p>

Grommets to fit KDL/H

A Small grommets	B Large grommets
----------------------------	----------------------------



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 2 to 12 mm (0.08 to 0.47 in). The lengthwise slotted grommet, made of thermoplastic natural rubber is placed around the line and pushed into the grommet block.



MULTI-LINE CABLE ENTRY GROMMET

The KDT/X 2x/4x multi-line cable entry grommet in their small version (for slots of Type **A**) facilitate easy cable entry for two or four round pre-assembled cables, e.g. entry into or feed-through at a control cabinet. The grommet is made of thermoplastic rubber.



DUMMY GROMMET

The BTK/X dummy grommets (for slots of Type **A**) can tightly seal unused openings.



Selection table KDL/E 16/xx for cables with connectors

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 3 – 16 mm (0.12 to 0.63 in). Large grommets (marked with **B** in the picture) can be used for the installation of cables with diameters of 16 – 31 mm (0.63 to 1.22 in).

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



A Small grommets 3 – 16 mm (0.12 to 0.63 in)

Number of grommets: 2 (in ATG/E adapter grommet)

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

B Large grommets 16 – 31 mm (0.63 to 1.22 in)

Number of grommets: 2

- KDT/ZE cable grommet
- SDT/ZE hose grommet
- ATG/E adapter grommet
- BTG/E dummy grommet

Number of grommets: 0

Number of grommets: 1

- KDT/ZE cable grommet
- SDT/ZE hose grommet
- ATG/E adapter grommet
- BTG/E dummy grommet

Grommets to fit KDL/E 16/xx

A

Small grommets

B

Large grommets



KDT/ZE



KDT/ZE



KDT/VE



KDT/ZE ASI



KDT/ZE 2x/4x



SDT/ZE



SDT/ZE



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.

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 3 to 16 mm (0.12 to 0.63 in), the large design is for 16 to 31 mm (0.63 to 1.22 in) 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.

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 lines, e.g. for entry into or feed-through at control cabinets. Two different diameter ranges can be serviced:

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

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

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 line. Strain relief can be achieved by installing cable ties.

MULTI-LINE CABLE ENTRY GROMMET

The KDT/ZE 2x/4x 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.

HOSE GROMMET FOR MURRFLEX CABLE PROTECTION CONDUITS

For example, the SDT/ZE hose 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 hoses. Strain relief can be achieved by installing cable ties.



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

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 3 – 16 mm (0.12 to 0.63 in). Large grommets (marked with **B** in the picture) can be used for the installation of cables with diameters of 16 – 31 mm (0.63 to 1.22 in).

- X Number of grommets
- X Suitable grommets



A Small grommets 3 – 16 mm (0.12 to 0.63 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 hose grommet
BTK/E dummy grommet

B Large grommets 16 – 31 mm (0.63 to 1.22 in)

Number of grommets: 2
KDT/ZE cable grommet
SDT/ZE hose 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 hose grommet
BTK/E dummy grommet

Number of grommets: 1
KDT/ZE cable grommet
SDT/ZE hose 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 hose grommet
BTK/E dummy grommet

Number of grommets: 0



KDL/E 24 for cables with connectors in applications

Grommets to fit KDL/E 24/xx

A

Small grommets

B

Large grommets



KDT/ZE



KDT/ZE



KDT/VE



KDT/ZE ASI



KDT/ZE 2x/4x



SDT/ZE



SDT/ZE



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.

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 3 to 16 mm (0.12 to 0.63 in), the large design is for 16 to 31 mm (0.63 to 1.22 in) 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.

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 lines, e.g. for entry into or feed-through at control cabinets. Two different diameter ranges can be serviced:

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

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

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 line. Strain relief can be achieved by installing cable ties.

MULTI-LINE CABLE ENTRY GROMMET

The KDT/ZE 2x/4x 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.

HOSE GROMMET FOR MURRFLX CABLE PROTECTION CONDUITS

For example, the SDT/ZE hose 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 hoses. Strain relief can be achieved by installing cable ties.



Selection table KDL - Jumbo for cables with connectors

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 splittable system that enables the quick and simple installation of 1 or 2 pre-assembled cables with a diameter of between 30 and 65 mm (1.18 to 2.56 in) in control cabinets and terminal boxes.

- X Number of grommets
- X Suitable grommets

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



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

Grommets to fit KDL-Jumbo

A

Jumbo grommets



KDT/Z jumbo

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 30 to 65 mm (1.18 to 2.56 in) are accommodated 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.



BT-Jumbo

DUMMY GROMMET

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



Selection table KDL/M for cables with connectors

POSSIBLE COMBINATIONS OF CABLE ENTRY SYSTEMS AND GROMMETS

The KDL/M cable entry system facilitates the entry, sealing off and strain-relief of pre-assembled cables and hoses, e.g. in control cabinets and junction boxes. The clamping range for cables spans from 3 to 31 mm (0.12 to 1.22 in). Multi-line cable entry grommets increase the capacity.

- X Number of grommets
- X Suitable grommets



A Small grommets 3–16 mm (0.12 to 0.63 in)

Number of grommets: 1	
KDT/Z cable grommet	
KDT/ASI, ASI cable bushing	
KDT/Z 2 x multi-line grommet	
SDT/ZE hose grommet	
BTK 17 dummy grommet	

Number of grommets: 1 (in ATG/M adapter grommet)	
KDT/Z cable grommet	
KDT/ASI, ASI cable bushing	
KDT/Z 2 x multi-line grommet	
SDT/ZE hose grommet	
BTK 17 dummy grommet	

B Large grommets 15–31 mm (0.59 to 1.22 in)

Number of grommets: 0	
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Number of grommets: 1	
KDT/ZN cable grommet	
ATG/M adapter grommet	
BTG/N 32 dummy grommet	



KDL/M M32 and KDL/M M50 in applications

Grommets to fit KDL/M

A

Small grommets



B

Large grommets



CABLE GROMMET FOR ROUND CABLES

The KDT/Z (small variant, Type **A**) and the KDT/ZN (large variant, Type **B**), can easily accommodate round, pre-assembled cables, e.g. for entry into or feed-through at control cabinets. The small design covers cable diameters of between 3 to 16 mm (0.12 to 0.63 in), the large design is for 15 to 31 mm (0.59 to 1.22 in) versions. The grommet, made of thermoplastic rubber is slotted and is positioned around the cable. Strain relief can be achieved by installing cable ties.

ASI CABLE BUSHING

The KDT/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. The grommet, made of thermoplastic rubber is slotted and is positioned around the cables. Strain relief can be achieved by installing cable ties.

HOSE GROMMET FOR MURRFLEX CABLE PROTECTION CONDUITS

For example, the SDT/Z hose grommet, small version (Type **A**), is perfect for Murrplastik cable protection conduit infeed or feed-through at control cabinets. The smaller variants accommodate hose sizes of M10/P7 to M16/P11. The grommet, made of thermoplastic rubber is slotted and is positioned around the cable. Strain relief can be achieved by installing cable ties.

DUMMY GROMMET

The BTK dummy grommets (for Type **A**) and BTG/N (for Type **B**) are able to seal unused openings tightly.







ADAPTER GROMMET

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








Selection table KDP/N 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0		
 KDP/N 24/10 Article number: 87301108				2 3.0 – 6.5 mm (0.12 – 0.26 in)				1 5.0 – 9.2 mm (0.20 – 0.36 in)							5 9 – 14 mm (0.35 – 0.55 in)					2 14 – 20 mm (0.55 – 0.79 in)					
 KDP/N 24/11 Article number: 87301110				4 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)												3 14 – 20 mm (0.55 – 0.79 in)					
 KDP/N 24/12 Article number: 87301120															12 8 – 12 mm (0.31 – 0.47 in)										
 KDP/N 24/13 Article number: 87301130				2 3.0 – 5.5 mm (0.12 – 0.22 in)					6 4.1 – 8.1 mm (0.16 – 0.32 in)						4 9 – 14 mm (0.35 – 0.55 in)					1 14 – 20 mm (0.55 – 0.79 in)					
 KDP/N 24/14 Article number: 87301140				6 3.0 – 6.5 mm (0.12 – 0.26 in)					4 5.0 – 9.2 mm (0.20 – 0.36 in)															4 9.6 – 15.9 mm (0.38 – 0.63 in)	
 KDP/N 24/17 Article number: 87301150																								17 5.0 – 9.2 mm (0.20 – 0.36 in)	

Selection table KDP/N 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	
 <p>KDP/N 24/17-1 Article number: 87301151</p>				11 3.0 – 6.5 mm (0.12 – 0.26 in)		1 4.1 – 8.1 mm (0.16 – 0.32 in)							5 8.0 – 12.5 mm (0.31 – 0.49 in)											
 <p>KDP/N 24/22 Article number: 87301160</p>				16 3.0 – 6.5 mm (0.12 – 0.26 in)			4 5.0 – 9.2 mm (0.20 – 0.36 in)						2 8.0 – 12.5 mm (0.31 – 0.49 in)											
 <p>KDP/N 24/23 Article number: 87301170</p>						23 4.1 – 8.1 mm (0.16 – 0.32 in)																		
 <p>KDP/N 24/29 Article number: 87301180</p>				29 3.0 – 6.5 mm (0.12 – 0.26 in)																				
 <p>KDP/N 24/80 Article number: 87301190</p>	1.5–2.6		78 (0.06 – 0.10 in)																					
		2 2.5 – 5.0 mm (0.10 – 0.20 in)																						



Selection table KDP/X 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	
 KDP/X 24/10 Article number: 87301305			2 3.0 – 6.5 mm (0.12 – 0.26 in)				1 5.0 – 9.2 mm (0.20 – 0.36 in)						5 9 – 14 mm (0.35 – 0.55 in)					2 14 – 20 mm (0.55 – 0.79 in)						
 KDP/X 24/11 Article number: 87301315			4 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)												3 14 – 20 mm (0.55 – 0.79 in)					
 KDP/X 24/12 Article number: 87301325														12 8 – 12 mm (0.31 – 0.47 in)										
 KDP/X 24/13 Article number: 87301335			2 3.0 – 5.5 mm (0.12 – 0.22 in)					6 4.1 – 8.1 mm (0.16 – 0.32 in)					4 9 – 14 mm (0.35 – 0.55 in)					1 14 – 20 mm (0.55 – 0.79 in)						
 KDP/X 24/14 Article number: 87301345			6 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)							4 9.6 – 15.9 mm (0.38 – 0.63 in)										
 KDP/X 24/17 Article number: 87301355																								17 5.0 – 9.2 mm (0.20 – 0.36 in)

Selection table KDP/X 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0		
 KDP/X 24/17-1 Article number: 87301356				11	3.0 – 6.5 mm (0.12 – 0.26 in)							1	4.1 – 8.1 mm (0.16 – 0.32 in)												
												5	8.0 – 12.5 mm		(0.31 – 0.49 in)										
 KDP/X 24/22 Article number: 87301365				16	3.0 – 6.5 mm (0.12 – 0.26 in)							4	5.0 – 9.2 mm (0.20 – 0.36 in)												
												2	8.0 – 12.5 mm		(0.31 – 0.49 in)										
 KDP/X 24/23 Article number: 87301375												23	4.1 – 8.1 mm (0.16 – 0.32 in)												
 KDP/X 24/29 Article number: 87301385																									
				29	3.0 – 6.5 mm (0.12 – 0.26 in)																				



Selection table KDP/E 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0			
 KDP/E 24/11 Article number: 87301310			4 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)												3 14 – 20 mm (0.55 – 0.79 in)							
 KDP/E 24/12 Article number: 87301320																								12 8 – 12 mm (0.31 – 0.47 in)		
 KDP/E 24/13 Article number: 87301330			2 3.0 – 5.5 mm (0.12 – 0.22 in)					6 4.1 – 8.1 mm (0.16 – 0.32 in)																	4 9 – 14 mm (0.35 – 0.55 in)	1 14 – 20 mm (0.55 – 0.79 in)
 KDP/E 24/14 Article number: 87301340			6 3.0 – 6.5 mm (0.12 – 0.26 in)					4 5.0 – 9.2 mm (0.20 – 0.36 in)																	4 9.6 – 15.9 mm (0.38 – 0.63 in)	
 KDP/E 24/17 Article number: 87301350																									17 5.0 – 9.2 mm (0.20 – 0.36 in)	
 KDP/E 24/17-1 Article number: 87301351			11 3.0 – 6.5 mm (0.12 – 0.26 in)																						1 4.1 – 8.1 mm (0.16 – 0.32 in)	5 8.0 – 12.5 mm (0.31 – 0.49 in)

Selection table KDP/E 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)



KDP/E 24/22
 Article number: 87301360



KDP/E 24/23
 Article number: 87301370



KDP/E 24/29
 Article number: 87301380

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	
16			3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)					2 8.0 – 12.5 mm (0.31 – 0.49 in)												
23				4.1 – 8.1 mm (0.16 – 0.32 in)																				
29			3.0 – 6.5 mm (0.12 – 0.26 in)																					



Selection table KDP 24/xx/02 for cables with or without connectors

X Number of openings
 X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)



KDP 24/10/02
 Article number: 87301076

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								



KDP 24/14/02
 Article number: 87301078

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								



KDP 24/15/02
 Article number: 87301080

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								



KDP 24/17/02
 Article number: 87301082

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								



KDP 24/20/02
 Article number: 87301084

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								

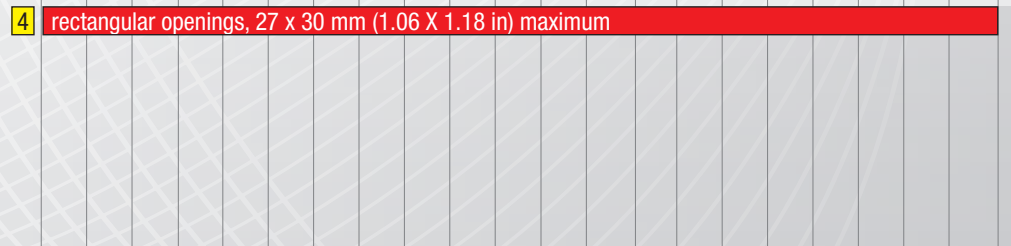
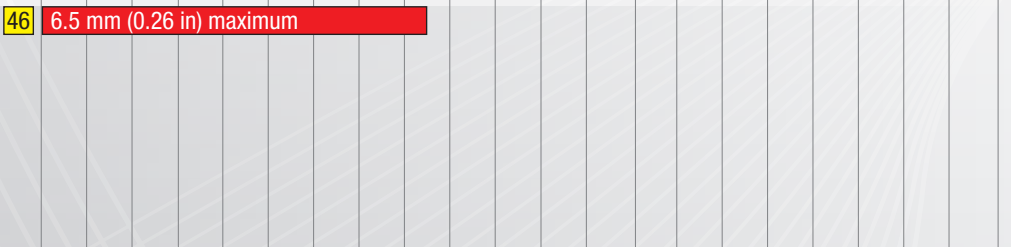
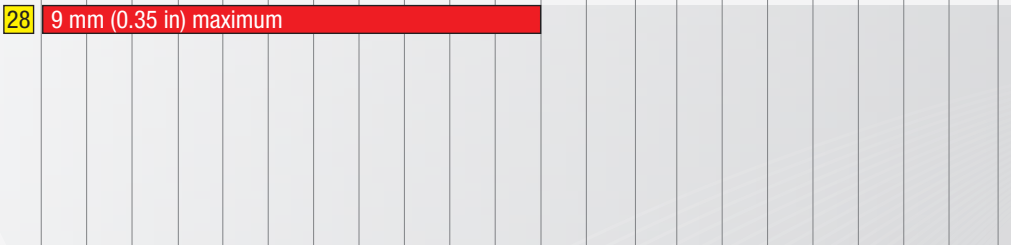
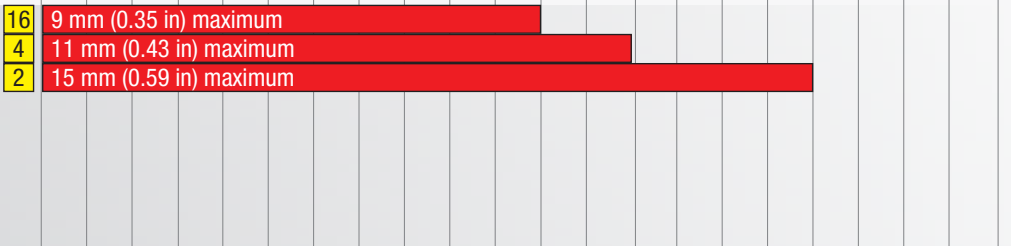
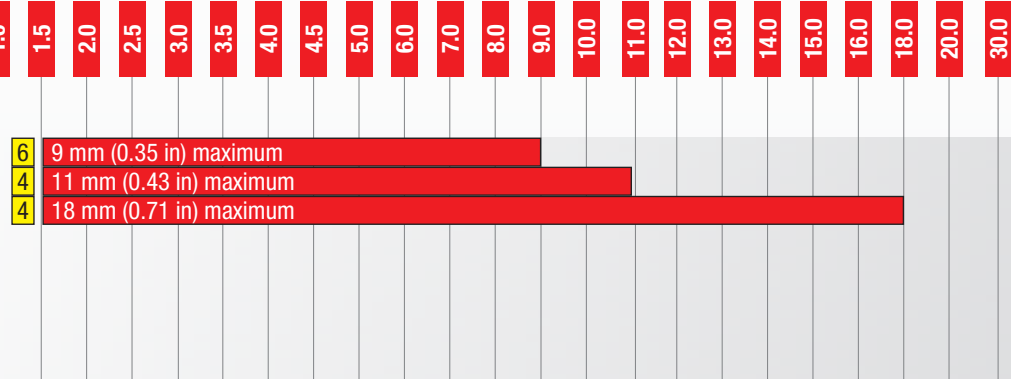


KDP 24/21/02
 Article number: 87301086

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	13.0	
A = Slot for small cable entry grommet, see KDL/E 24																								

Selection table KDP/F for cables without connectors







X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)





Selection table KDP/R for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	14.0	16.0				
 KDP/R M50/4 Article number: 87301030																								3	6 – 10 mm (0.24 – 0.39 in)		
																									1	9.6 – 15.9 mm (0.38 – 0.63 in)	
 KDP/R M50/6 Article number: 87301032																									1	3.0 – 5.5 mm (0.12 – 0.22 in)	
																										5	5.0 – 9.2 mm (0.20 – 0.36 in)
 KDP/R M50/8 Article number: 87301034																										7	3.5 – 6.5 mm (0.14 – 0.26 in)
																										1	6 – 10 mm (0.24 – 0.39 in)
 KDP/R M50/31 Article number: 87301038																										31	1.5 – 3.1 mm (0.06 – 0.12 in)
 KDP/R M63/8 Article number: 87301040																										2	3.0 – 6.5 mm (0.12 – 0.26 in)
																										4	5.0 – 9.2 mm (0.20 – 0.36 in)
																										2	9.6 – 15.9 mm (0.38 – 0.63 in)
 KDP/R M63/13 Article number: 87301042																										6	3.0 – 5.5 mm (0.12 – 0.22 in)
																										6	3.5 – 6.5 mm (0.14 – 0.26 in)
																										1	6 – 10 mm (0.24 – 0.39 in)

Selection table KDP/R for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)



	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	14.0	16.0	
19					3.0 – 5.0 mm (0.12 – 0.20 in)																			
46		1.5 – 3.1 mm (0.06 – 0.12 in)																						

Selection table KDPR/F for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

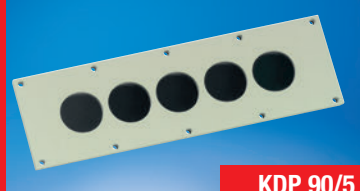
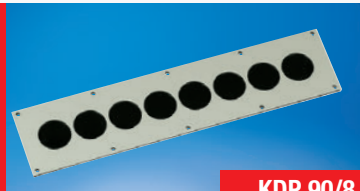






	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	11.0	12.0	14.0	16.0						
2	semi-circular, maximum \varnothing for 13.5 mm (0.53 in) cables																												
8	8.5 mm (0.33 in) maximum																												



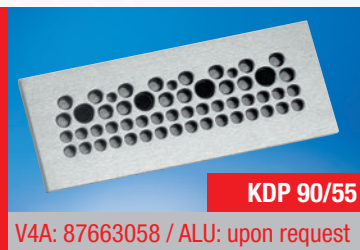
Selection table for cablequick® KDP Metal 90 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	24.0	28.0	
 KDP 90/5 V4A: upon request / ALU: 87663029																			5	16 – 28 mm (0.63 – 1.10 in)				
 KDP 90/8 V4A: upon request / ALU: 87663026																			8	16 – 28 mm (0.63 – 1.10 in)				
 KDP 90/13 V4A: 87663118 / ALU: upon request			3.0 – 6.2 mm (0.12 – 0.24 in)	4	4.5 – 8.5 mm (0.18 – 0.33 in)		4	6 – 10 mm			2	9 – 14 mm										1	14 – 18 mm (0.55 – 0.71 in)	
 KDP 90/25 V4A: upon request / ALU: 87663022			3.0 – 5.0 mm	9	4 – 8 mm (0.16 – 0.31 in)																			
 KDP 90/28 V4A: upon request / ALU: 87663032				14	4 – 8 mm (0.16 – 0.31 in)			10	6 – 10 mm			2	9 – 14 mm									2	12 – 18 mm (0.47 – 0.71 in)	
 KDP 90/39+3 V4A: 87663038 / ALU: 87663036			3 – 6 mm (0.12 – 0.24 in)	12	4 – 8 mm (0.16 – 0.31 in)						24	8 – 12 mm												

Selection table for cablequick® KDP Metal 90 for cables without connectors

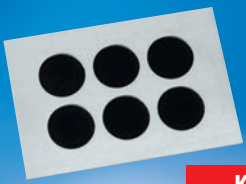





X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)




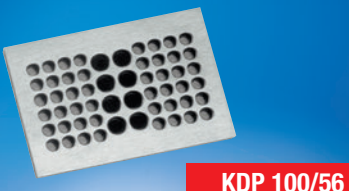


	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	24.0	28.0	
14		3.5 – 6.5 mm (0.14 – 0.26 in)																						
28			4.5 – 8.5 mm (0.18 – 0.33 in)																					
4							7 – 11 mm																	
1													11 – 16 mm											
3	3.0 – 5.0 mm																							
32		3.5 – 6.5 mm (0.14 – 0.26 in)																						
16			4 – 8 mm (0.16 – 0.31 in)																					
4									8 – 12 mm															



Selection table for cablequick® KDP Metal 100 for cables without connectors




	1.0	2.0	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	24.0			
X Number of openings X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)																										
 KDP 100/6 V4A: 87663116 / ALU: upon request																					6			16 – 24 mm (0.63 – 0.94 in)		
 KDP 100/15 V4A: 87663120 / ALU: upon request													3											8 – 12 mm (0.31 – 0.47 in)		
 KDP 100/18 V4A: 87663122 / ALU: upon request																								12	11 – 16 mm (0.43 – 0.63 in)	
 KDP 100/24 V4A: 87663124 / ALU: upon request																									18	8 – 12 mm (0.31 – 0.47 in)
 KDP 100/30 V4A: 87663062 / ALU: upon request																									24	6.0 – 10.5 mm (0.24 – 0.41 in)
 KDP 100/30B V4A: 87663063 / ALU: upon request																									12	3.5 – 6.5 mm (0.14 – 0.26 in)
																									12	6 – 10 mm (0.24 – 0.39 in)
																									6	9 – 14 mm (0.35 – 0.55 in)
																									12	3.5 – 6.5 mm (0.14 – 0.26 in)
																									12	6 – 10 mm (0.24 – 0.39 in)
																									4	9 – 14 mm (0.35 – 0.55 in)
																									2	12 – 18 mm (0.47 – 0.71 in)

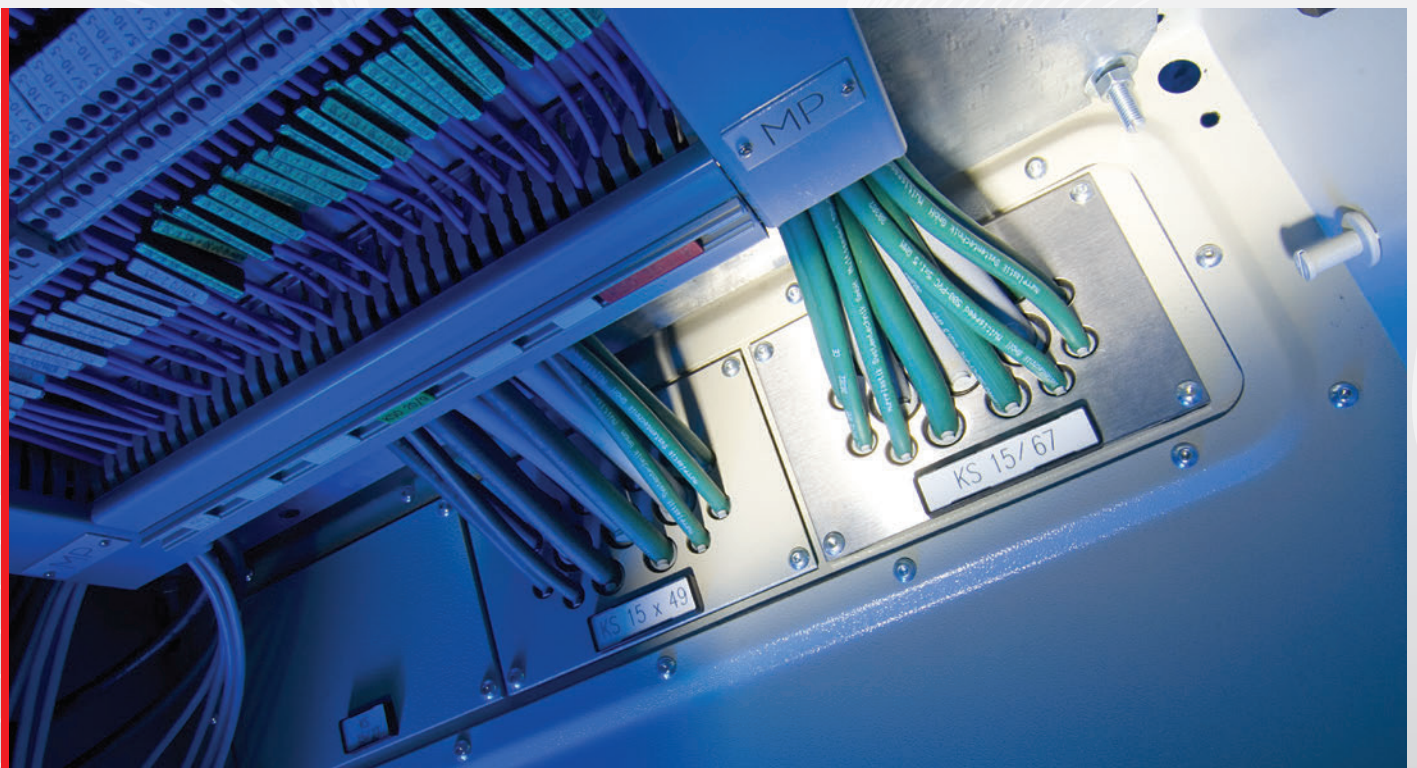
Selection table for cablequick® KDP Metal 100 for cables without connectors

	1.0	2.0	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	24.0
<p>X Number of openings</p> <p>X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)</p>  <p>KDP 100/40 V4A: 87663061 / ALU: upon request</p>						40	4.5 – 8.5 mm (0.18 – 0.33 in)																
 <p>KDP 100/56 V4A: 87663060 / ALU: upon request</p>			48	3.5 – 6.5 mm (0.14 – 0.26 in)					8	6 – 10 mm (0.24 – 0.39 in)													
 <p>KDP 100/56B V4A: 87663065 / ALU: upon request</p>	1.0 – 3.5 mm		48	0.04 – 0.14 in					8	3.5 – 6.5 mm (0.14 – 0.26 in)													
 <p>KDP 100/56C V4A: 87663067 / ALU: upon request</p>	1.0 – 3.5 mm		48	0.04 – 0.14 in					4	3.5 – 6.5 mm (0.14 – 0.26 in)				4	6 – 10 mm (0.24 – 0.39 in)								








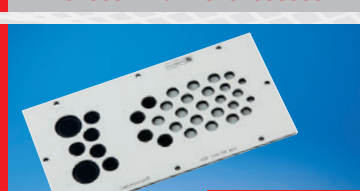
Selection table for cablequick® KDP Metal 105 for cables without connectors

	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	24.0	26.0	
X Number of openings X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)																								
 KDP 105/12 V4A: 87663057 / ALU: 87663056											9	9 – 14 mm (0.35 – 0.55 in)			2	12 – 18 mm (0.47 – 0.71 in)			1	18 – 25 mm (0.71 – 0.98 in)				
 KDP 105/15 V4A: 87663016 / ALU: 87663014							8	6 – 10 mm (0.24 – 0.39 in)			4	9 – 14 mm (0.35 – 0.55 in)			3	12 – 18 mm (0.47 – 0.71 in)								
 KDP 105/32 V4A: 87663012 / ALU: 87663010	3.0 – 5.0 mm						16	0.12 – 0.20 in																
		12	4 – 8 mm (0.16 – 0.31 in)								4	6 – 10 mm (0.24 – 0.39 in)												



KDP 105/15 in the control cabinet

Selection table for cablequick® KDP Metal 120/134 for cables without connectors

	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	24.0	28.0	32.0	36.0	40.0	44.0	49.0		
X Number of openings X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)																									
 KDP 120/2 V4A: 87663140 / ALU: 87663001															2	18 – 36 mm								(0.71 – 1.42 in)	
 KDP 120/2B V4A: 87663141 / ALU: 87663002																					2	36 – 49 mm		(1.42 – 1.93 in)	
 KDP 120/2C V4A: 87663142 / ALU: 87663003															1	18 – 36 mm						1	36 – 49 mm		(0.71 – 1.42 in) (1.42 – 1.93 in)
 KDP 120/17 V4A: 87663143 / ALU: 87663004			6	6 – 10 mm			4	9 – 14 mm		3	12 – 18 mm				4	18 – 25 mm								(0.24 – 0.39 in) (0.35 – 0.55 in) (0.47 – 0.71 in) (0.71 – 0.98 in)	
 KDP 120/35 V4A: 87663144 / ALU: 87663005				3.5 – 6.5 mm	8	0.14 – 0.26 in	18	6 – 10 mm		7	9.6 – 15.9 mm		2	14 – 20 mm										(0.24 – 0.39 in) (0.38 – 0.63 in) (0.55 – 0.79 in)	
 KDP 134/34 V4A: upon request / ALU: 87663024				3 – 5 mm	2	0.12 – 0.20 in	6	4 – 8 mm		15	6 – 10 mm		4	8 – 12 mm		5	9 – 14 mm		2	14 – 20 mm					(0.16 – 0.31 in) (0.24 – 0.39 in) (0.31 – 0.47 in) (0.35 – 0.55 in) (0.55 – 0.79 in)



Selection table for cablequick® KDP Metal 149 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)



KDP 149/46
 V4A: upon request / ALU: 87663064



KDP 149/56
 V4A: 87663086 / ALU: 87663097



KDP 149/78
 Steel: 87663771



KDP 149/140
 V4A: 87663088 / ALU: 87663095



KDP 149/158
 V4A: 87663068 / ALU: 87663089

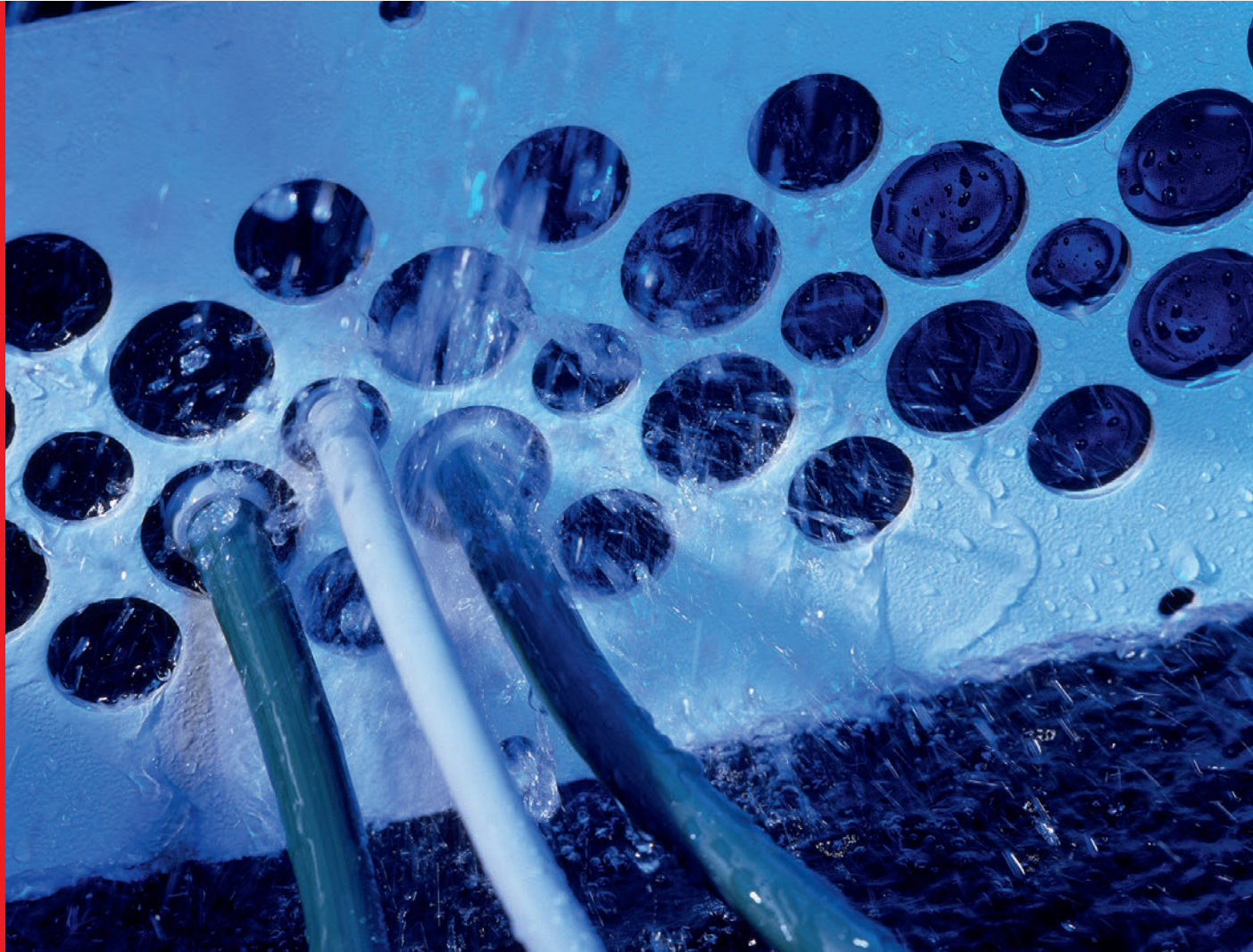


KDP 149/292
 V4A: 87663066 / ALU: 87663079

	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	
KDP 149/46						8	6 – 10 mm				16	10 – 14 mm												
KDP 149/56																								
KDP 149/78																								
KDP 149/140																								
KDP 149/158																								
KDP 149/292																								

Selection table for cablequick® KDP Metal 160 for cables without connectors

	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0		
X Number of openings																									
X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)	3.5 – 6.5 mm (0.14 – 0.26 in)							16											9.0 – 14.0 mm (0.35 – 0.55 in)		12 – 18 mm (0.47 – 0.71 in)				







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



Selection table KDM for cables without connectors





X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

	1.0	3.0	5.0	7.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0	33.0	35.0
 <p>KDM M16 Article number: 87401010</p>	1 – 9 mm Ø max. 1 (0.04 – 0.35 in Ø max.)																						
 <p>KDM M20 Article number: 87401012</p>	1 – 13 mm (0.04 – 0.51 in) Ø max. 1																						
 <p>KDM M25 Article number: 87401014</p>	1 – 18 mm (0.04 – 0.71 in) Ø max. 1																						
 <p>KDM M32 Article number: 87401016</p>	1 – 25 mm (0.04 – 0.71 in) Ø max. 1																						










Type KDM cable entry membrane and its applications

Selection table KDM/F for cables without connectors

	1.0	3.0	5.0	7.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0	33.0	35.0
 <p>KDM/F M16 Article number: 87401050</p>	1 – 9 mm Ø max. 1 (0.04 – 0.35 in Ø max.)																						
 <p>KDM/F M20 Article number: 87401052</p>	1 – 13 mm (0.04 – 0.51 in) Ø max. 1																						
 <p>KDM/F M25 Article number: 87401054</p>	1 – 18 mm (0.04 – 0.71 in) Ø max. 1																						
 <p>KDM/F M32 Article number: 87401056</p>	1 – 25 mm (0.04 – 0.71 in) Ø max. 1																						



Selection table KDM for cables without connectors







	4.0	5.0	6.0	7.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0	33.0	35.0	
X Number of openings X clamping area in mm (1 in = 25.4 mm; 1 mm = 0.04 in)																								
 KDM/G M12 Article number: 87401020	4 - 7 mm Ø max. 1 (0.16 - 0.28 in Ø max.)																							
 KDM/G M16 Article number: 87401022	1 5 - 10 mm Ø max. (0.20 - 0.39 in Ø max.)																							
 KDM/G M20 Article number: 87401024	1 8 - 13 mm Ø max. (0.31 - 0.51 in Ø max.)																							
 KDM/G M25 Article number: 87401026	1 11 - 17 mm Ø max. (0.43 - 0.67 in Ø max.)																							
 KDM/G M32 Article number: 87401028	1 15 - 21 mm Ø max. (0.59 - 0.83 in Ø max.)																							
 KDM/G M40 Article number: 87401030	1 19 - 28 mm Ø max. (0.75 - 1.10 in Ø max.)																							
 KDM/G M50 Article number: 87401032	1 27 - 35 mm Ø max. (1.06 - 1.38 in Ø max.)																							









Selection table KDP/EN and KDP/EN-RA 24 for cables without connectors

X Number of openings
X clamping area in mm
 (1 in = 25.4 mm; 1 mm = 0.04 in)

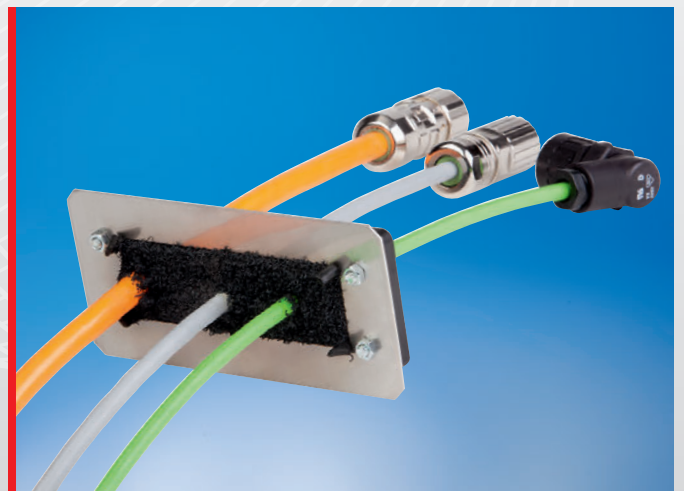
	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0	
 KDP/EN 24/11 EN: 87301210 / EN-RA: 87301215			4 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)												3 14 – 20 mm (0.55 – 0.79 in)					
 KDP/EN 24/12 EN: 87301220 / EN-RA: 87301225													12 8 – 12 mm (0.31 – 0.47 in)											
 KDP/EN 24/13 EN: 87301230 / EN-RA: 87301235			2 3.0 – 5.5 mm (0.12 – 0.22 in)		6 4.1 – 8.1 mm (0.16 – 0.32 in)								4 9 – 14 mm (0.35 – 0.55 in)					1 14 – 20 mm (0.55 – 0.79 in)						
 KDP/EN 24/14 EN: 87301240 / EN-RA: 87301245			6 3.0 – 6.5 mm (0.12 – 0.26 in)				4 5.0 – 9.2 mm (0.20 – 0.36 in)							4 9.6 – 15.9 mm (0.38 – 0.63 in)										
 KDP/EN 24/17 EN: 87301250 / EN-RA: 87301255													17 5.0 – 9.2 mm (0.20 – 0.36 in)											
 KDP/EN 24/17-1 EN: 87301251 / EN-RA: 87301256			11 3.0 – 6.5 mm (0.12 – 0.26 in)		1 4.1 – 8.1 mm (0.16 – 0.32 in)								5 8.0 – 12.5 mm (0.31 – 0.49 in)											

Selection table KDP/EN and KDP/EN-RA 24 for cables without connectors

	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	18.0	20.0	22.0		
 <p>KDP/EN 24/22 EN: 87301260 / EN-RA: 87301265</p>			16	3.0 – 6.5 mm (0.12 – 0.26 in)			4	5.0 – 9.2 mm (0.20 – 0.36 in)				2	8.0 – 12.5 mm (0.31 – 0.49 in)												
 <p>KDP/EN 24/23 EN: 87301270 / EN-RA: 87301275</p>																									
 <p>KDP/EN 24/29 EN: 87301280 / EN-RA: 87301285</p>																									
 <p>KDP/EN 24/80 EN: 87301290 / EN-RA: 87301295</p>																									



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

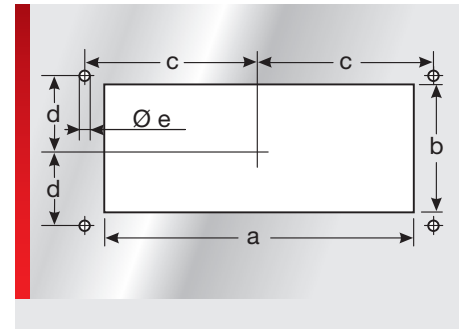
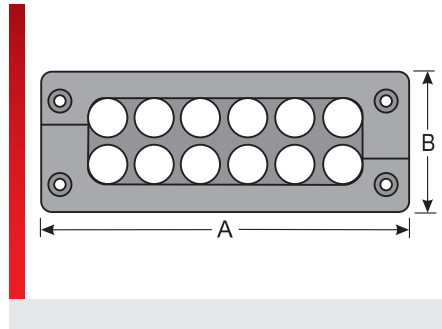


Expanded room integrity mat after heat application





Cable entry system type KDL/C



PRODUCT INFORMATION

The KDL/C cable entry system is used for inserting pre-assembled cables. The KDL/C 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.

- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- Fits standard cut-out dimensions
- Protection class IP 54.

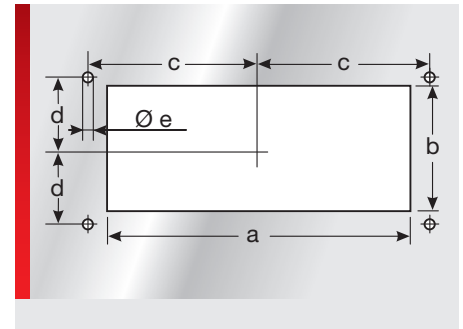
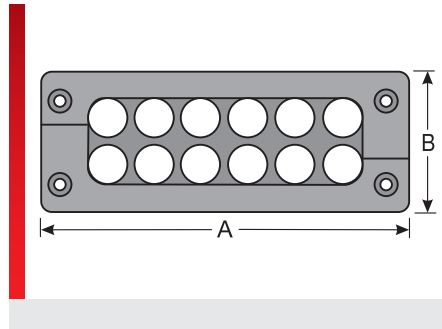
SPECIFICATIONS

	-22.00 – 212.00 °F
	Frame: Polypropylene (PP) Block: TPE
	V0
	(with suitable grommets and cables) IP 54

Type	Part number	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/C 24/12	87141012	black	12 / 0	1.00
KDL/C 24/9	87141024	black	8 / 1	1.00
KDL/C 24/8	87141020	black	6 / 2	1.00
KDL/C 24/4	87141016	black	0 / 4	1.00
For standard cut-out size 16				
KDL/C 16/8	87141028	black	8 / 0	1.00
KDL/C 16/7	87141032	black	6 / 1	1.00
KDL/C 16/3	87141036	black	0 / 3	1.00
For standard cut-out size 10				
KDL/C 10/6	87141040	black	6 / 0	1.00
KDL/C 10/5	87141043	black	4 / 1	1.00
KDL/C 10/2	87141041	black	0 / 2	1.00
For standard cut-out size 6				
KDL/C 6/4	87141046	black	4 / 0	1.00

KDL/C -/D -/H cable entry system

Cable entry system type KDL/D



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.

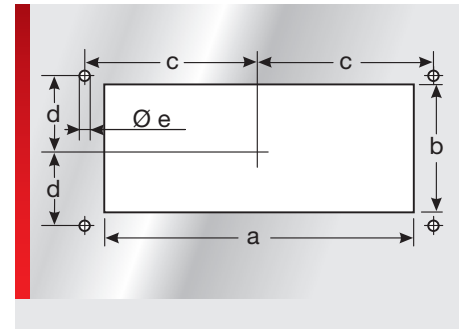
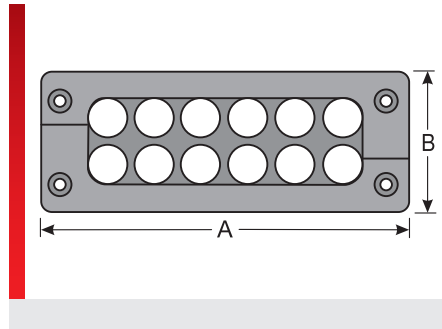
- Uninterrupted cable guidance
- Easy assembly
- Integrated strain relief
- Fits standard cut-out dimensions
- High protection class IP65
- KDL/D-R M50/4:
Cut-out 50.5 mm (1.99 in.) (round)

SPECIFICATIONS

	-22.00 – 212.00 °F
	Frame: Polypropylene (PP) Block: TPE
	V0
	(with suitable grommets and cables) IP 65

Type	Part number	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/D 24/12	87141010	black	12 / 0	1.00
KDL/D 24/9	87141022	black	8 / 1	1.00
KDL/D 24/8	87141018	black	6 / 2	1.00
KDL/D 24/4	87141014	black	0 / 4	1.00
For standard cut-out size 16				
KDL/D 16/8	87141026	black	8 / 0	1.00
KDL/D 16/7	87141030	black	6 / 1	1.00
KDL/D 16/3	87141034	black	0 / 3	1.00
For standard cut-out size 10				
KDL/D 10/6	87141038	black	6 / 0	1.00
KDL/D 10/5	87141042	black	4 / 1	1.00
KDL/D 10/2	87141039	black	0 / 2	1.00
For standard cut-out size 6				
KDL/D 6/4	87141044	black	4 / 0	1.00
Special size				
KDL/D 1/6	87141048	black	6 / 0	1.00
KDL/D-R M50/4	87141002	black	4 / 0	1.00

Type 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

SPECIFICATIONS

	-22.00 – 212.00 °F
	Frame: ZN Block: TPE
	(with suitable grommets and cables) IP 66/67
	RoHS
	Made in Germany

Type	Part number	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/H 24/12	87141410	black	12 / 0	1.00

Dimension table

Type	Part number	Installation height 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

Cable entry grommets type KDT/X



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

- 22.00 – 212.00 °F
- TPE
- V0

- RoHS
- cURus
- Made in Germany

Type	Part number	Color	For Ø inch	For opening small / large	No. of openings	Pack qty.
Grommet, small						
KDT/X 02	87141210	black	0.08 – 0.12	• / -	1	12.00
KDT/X 03	87141212	black	0.12 – 0.16	• / -	1	12.00
KDT/X 04	87141214	black	0.16 – 0.20	• / -	1	12.00
KDT/X 05	87141216	black	0.20 – 0.24	• / -	1	12.00
KDT/X 06	87141218	black	0.24 – 0.28	• / -	1	12.00
KDT/X 07	87141220	black	0.28 – 0.31	• / -	1	12.00
KDT/X 08	87141222	black	0.31 – 0.35	• / -	1	12.00
KDT/X 09	87141224	black	0.35 – 0.39	• / -	1	12.00
KDT/X 10	87141226	black	0.39 – 0.43	• / -	1	12.00
KDT/X 11	87141228	black	0.43 – 0.47	• / -	1	12.00
Grommet, large						
KDT/X 12	87141230	black	0.47 – 0.51	- / •	1	4.00
KDT/X 13	87141232	black	0.51 – 0.55	- / •	1	4.00
KDT/X 14	87141234	black	0.55 – 0.59	- / •	1	4.00
KDT/X 15	87141236	black	0.59 – 0.63	- / •	1	4.00
KDT/X 16	87141238	black	0.63 – 0.67	- / •	1	4.00
KDT/X 17	87141240	black	0.67 – 0.71	- / •	1	4.00
KDT/X 18	87141242	black	0.71 – 0.75	- / •	1	4.00
KDT/X 19	87141244	black	0.75 – 0.79	- / •	1	4.00
KDT/X 20	87141246	black	0.79 – 0.83	- / •	1	4.00
KDT/X 21	87141248	black	0.83 – 0.87	- / •	1	4.00

Cable entry grommets type KDT/X (Continued...)

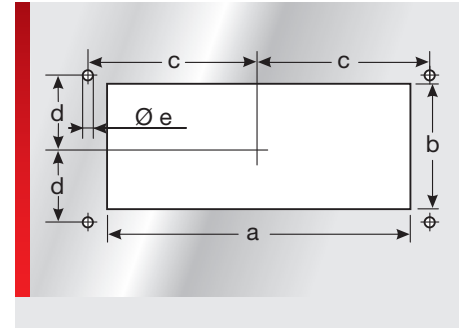
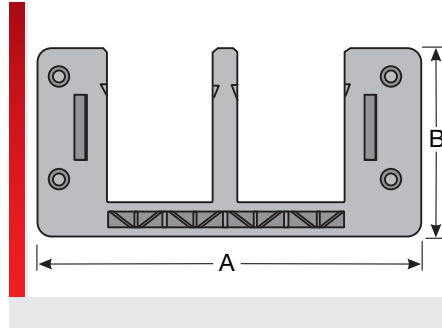
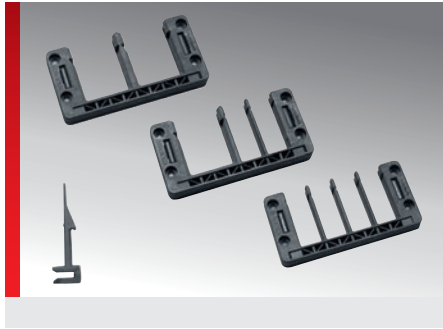


Type	Part number	Color	For Ø inch	For opening small / large	No. of openings	Pack qty.
Dummy grommet						
BTK/X (dummy grommet)	87141270	black		• / -	1	12.00
BTG/X dummy grommet	87141266	black		- / •	1	4.00
Double cable grommet						
KDT/X 2x2 ¹⁾	87141275	black	0.08	• / -	2	12.00
KDT/X 2x3 ¹⁾	87141277	black	0.12	• / -	2	12.00
KDT/X 2x4 ¹⁾	87141279	black	0.16	• / -	2	12.00
KDT/X 2x5 ¹⁾	87141281	black	0.20	- / •	2	4.00
KDT/X 2x6 ¹⁾	87141283	black	0.24	- / •	2	4.00
KDT/X 2x7 ¹⁾	87141285	black	0.28	- / •	2	4.00
KDT/X 2x8 ¹⁾	87141287	black	0.31	- / •	2	4.00
Multi-line sleeve						
KDT/X 4x2 ¹⁾	87141276	black	0.08	• / -	4	12.00
KDT/X 4x3 ¹⁾	87141278	black	0.12	• / -	4	12.00
KDT/X 4x4 ¹⁾	87141280	black	0.16	• / -	4	12.00
KDT/X 4x5 ¹⁾	87141282	black	0.20	- / •	4	4.00
KDT/X 4x6 ¹⁾	87141284	black	0.24	- / •	4	4.00
KDT/X 4x7 ¹⁾	87141286	black	0.28	- / •	4	4.00
KDT/X 4x8 ¹⁾	87141288	black	0.31	- / •	4	4.00
Grommet adapter (adapter for small grommet)						
ATG/X ²⁾	87141268	black		- / •		4.00
ASI bushing (for ASI line)						
KDT/X 1xASI ²⁾	87141274	black		- / •		4.00
KDT/X 2xASI ²⁾	87141272	black		- / •		4.00
USB grommet						
KDT/X-USB 0.5m ²⁾	87141294	black		- / •		1.00
KDT/X-USB 1.0m ²⁾	87141296	black		- / •		1.00



Cable entry system KDL/E

Cable entry system type KDL/E



KDL/E cable entry system

PRODUCT INFORMATION

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

- Even quicker mounting of pre-assembled cables.
- Snap in, meaning screwing on is no longer absolutely necessary

- Catch hook for 1.5 – 2.0 mm (0.06 – 0.08 in.) plate thickness included with delivery, additional catch hooks for up to 4.1 mm (0.16 in.) plate thickness available
- Fits standard cut-outs for connectors (e.g. Harting, Wieland and Rittal)
- Simple realization of EMC solution with discharge plate.

SPECIFICATIONS

- 40.00 – 176.00 °F
- Polyamide 6.6
- V0
- (with suitable grommets and cables) IP 54

RoHS
 SE
 GL
 UL
 Made in Germany

Type	Part number	Color	No. of openings small / large	Pack qty.
For standard cut-out size 16				
KDL/E 16/2 ¹⁾	87121010	black	0 / 2	1.00
KDL/E 16/4 ¹⁾	87121011	black	4 / 0	1.00
KDL/E 16/5 ¹⁾	87121012	black	4 / 1	1.00
KDL/E 16/8 ¹⁾	87121014	black	8 / 0	1.00
For standard cut-out size 24				
KDL/E 24/4 ²⁾	87121016	black	2 / 2	1.00
KDL/E 24/7 ²⁾	87121018	black	6 / 1	1.00
KDL/E 24/10 ²⁾	87121020	black	10 / 0	1.00

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	Part number	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

Cable entry grommet, type KDT/xE



KDL/E cable entry system

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

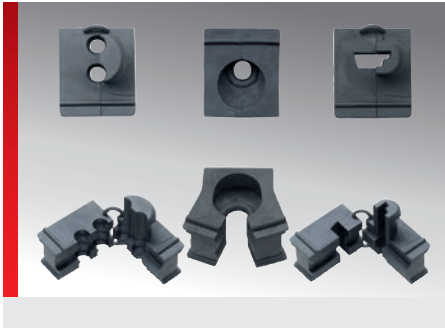
- 40.00 – 176.00 °F
- Thermoplastic rubber
- HB

Type	Part number	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		10.00
KDT/ZE 04	87121212	black	0.16 – 0.20	• / -	1		10.00
KDT/ZE 05	87121214	black	0.20 – 0.24	• / -	1		10.00
KDT/ZE 06	87121216	black	0.24 – 0.28	• / -	1		10.00
KDT/ZE 07	87121218	black	0.28 – 0.31	• / -	1		10.00
KDT/ZE 08	87121220	black	0.31 – 0.35	• / -	1		10.00
KDT/ZE 09	87121222	black	0.35 – 0.39	• / -	1		10.00
KDT/ZE 10	87121224	black	0.39 – 0.43	• / -	1		10.00
KDT/ZE 11	87121226	black	0.43 – 0.47	• / -	1		10.00
KDT/ZE 12	87121228	black	0.47 – 0.51	• / -	1		10.00
KDT/ZE 13	87121230	black	0.51 – 0.55	• / -	1		10.00
KDT/ZE 14	87121232	black	0.55 – 0.59	• / -	1		10.00
KDT/ZE 15	87121234	black	0.59 – 0.63	• / -	1		10.00
Grommet, large							
KDT/ZE 16	87121236	black	0.63 – 0.67	- / •	1		10.00
KDT/ZE 17	87121238	black	0.67 – 0.71	- / •	1		10.00
KDT/ZE 18	87121240	black	0.71 – 0.75	- / •	1		10.00
KDT/ZE 19	87121242	black	0.75 – 0.79	- / •	1		10.00
KDT/ZE 20	87121244	black	0.79 – 0.83	- / •	1		10.00
KDT/ZE 21	87121246	black	0.83 – 0.87	- / •	1		10.00
KDT/ZE 22	87121248	black	0.87 – 0.91	- / •	1		10.00
KDT/ZE 23	87121250	black	0.91 – 0.94	- / •	1		10.00

Cable entry grommet, type KDT/xE (Continued...)

Type	Part number	Color	For Ø inch	For opening small / large	No. of openings	Suitable for Conduit	Pack qty.
KDT/ZE 24	87121252	black	0.94 – 0.98	- / •	1		10.00
KDT/ZE 25	87121254	black	0.98 – 1.02	- / •	1		10.00
KDT/ZE 26	87121256	black	1.02 – 1.06	- / •	1		10.00
KDT/ZE 27	87121258	black	1.06 – 1.10	- / •	1		10.00
KDT/ZE 28	87121260	black	1.10 – 1.14	- / •	1		10.00
KDT/ZE 29	87121262	black	1.14 – 1.18	- / •	1		10.00
KDT/ZE 30	87121264	black	1.18 – 1.22	- / •	1		10.00
Variable cable grommet (Protection class IP 42)							
KDT/VE 3–7 ¹⁾	87121272	black	0.12 – 0.28	• / -	1		10.00
KDT/VE 7–10 ¹⁾	87121274	black	0.28 – 0.39	• / -	1		10.00
Multi-line sleeve							
KDT/ZE 2x4 double grommet ²⁾	87121284	black	0.16	• / -	2		10.00
KDT/ZE 2x5 double grommet ²⁾	87121286	black	0.20	• / -	2		10.00
KDT/ZE 2x6 double grommet ²⁾	87121288	black	0.24	• / -	2		10.00
KDT/ZE 2x7 double grommet ²⁾	87121290	black	0.28	• / -	2		10.00
KDT/ZE 2x8 double grommet ²⁾	87121291	black	0.31	• / -	2		10.00
KDT/ZE 4x2 quadruple grommet ²⁾	87121292	black	0.08	• / -	4		10.00
KDT/ZE 4x3 quadruple grommet ²⁾	87121293	black	0.12	• / -	4		10.00
KDT/ZE 4x4 quadruple grommet ²⁾	87121294	black	0.16	• / -	4		10.00
KDT/ZE 4x5 quadruple grommet ²⁾	87121295	black	0.20	• / -	4		10.00
KDT/ZE 4x6 quadruple grommet ²⁾	87121296	black	0.24	• / -	4		10.00
ASI bushing (for ASI line)							
KDT/ZE 2xASI double grommet ¹⁾	87121280	black		• / -	2		10.00
KDT/ZE ASI ¹⁾	87121282	black		• / -	1		10.00
Dummy plug for ASI grommet							
BST KDT/ZE ASI ¹⁾	87121281	black					10.00
Grommet adapter (adapter for small grommet)							
ATG/E ¹⁾	87121268	black		- / •	1		10.00
Conduit grommet							
SDT/ZE 07 ¹⁾	87174250	black		• / -	1	M10/P07	10.00
SDT/ZE 09 ¹⁾	87174252	black		• / -	1	M12/P09	10.00
SDT/ZE 11 ¹⁾	87174254	black		• / -	1	M16/P11	10.00
SDT/ZE 16 ¹⁾	87174256	black		- / •	1	M20/P16	10.00
SDT/ZE 21 ¹⁾	87174258	black		- / •	1	M25/P21	10.00
Dummy grommet							
BTK/E ¹⁾	87121266	black		• / -	0		10.00

Cable entry grommet, type KDT/xE (Continued...)



KDL/E cable entry system

Type	Part number	Color	For Ø inch	For opening small / large	No. of openings	Suitable for Conduit	Pack qty.
BTG/E ¹⁾	87121270	black		- / •	0		10.00

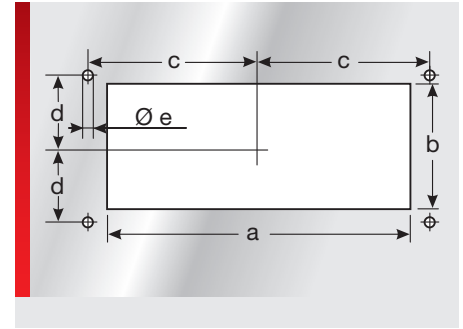
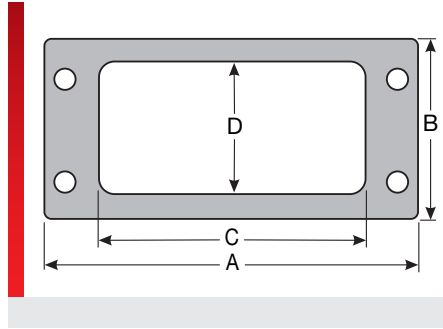
¹⁾ No UR approval

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



Cable entry system KDL/S

Cable entry system, type KDL/S



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

SPECIFICATIONS

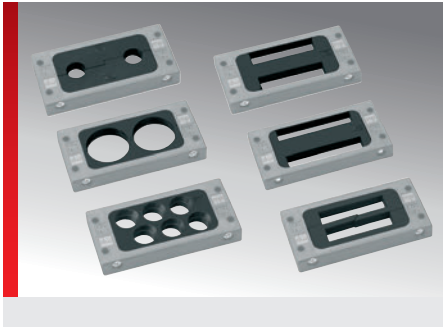
- 40.00 – 176.00 °F
- Polyamide 6.6
- V0
- (with suitable grommets and cables) IP 54

Type	Part number	Color	Pack qty.
For standard cut-out size 16			
KDL/S 16	87173004	black	1.00

Dimension table

Type	Part number	A inch	B inch	C inch	D inch	a inch	b inch	c inch	d inch	e inch	EH inch
For standard cut-out size 16											
KDL/S 16	87173004	4.57	2.28	3.23	1.69	3.39	1.42	2.03	0.63	0.22	0.59

Cable entry grommets, type KDT/S



PRODUCT INFORMATION

The type 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.

- Individual solutions

SPECIFICATIONS

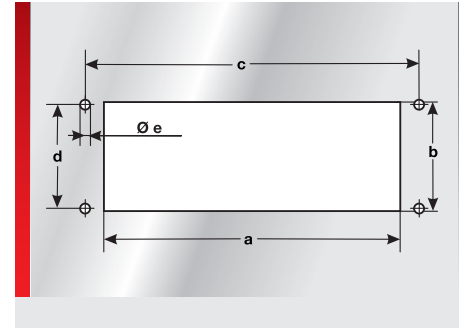
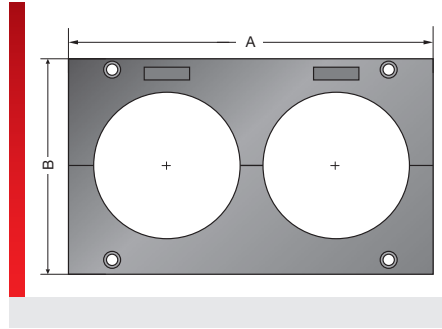
	-40.00 – 176.00 °F
	Thermoplastic rubber
	HB

Type	Part number	Color	No. Openings	For Ø inch	For ribbon cable	Version	Pack qty.
KDT/S 2x15	87175444	black	2	0.59		two-part	1.00
KDT/S 2x24 – 28	87175447	black	2	0.94 – 1.10		two-part	1.00
KDT/S 2x28 – 32	87175443	black	2	1.10 – 1.26		two-part	1.00
KDT/S 2x35	87175440	black	2	1.38		two-part	1.00
KDT/S 6x17.5	87175441	black	6	0.69		one-piece	1.00
KDT/S 6x20.3	87175445	black	6	0.80		one-piece	1.00
KDT/S 56x13	87175442	black	2		2.2 x 0.51	two-part	1.00
KDT/S 56x13 B	87175448	black	2		2.2 x 0.51	one-piece	1.00
KDT/S 67x12 B	87175446	black	2		2.64 x 0.47	one-piece	1.00
KDT/S 67x12 C	87175449	black	2		2.64 x 0.47	two-part	1.00
KDT/S Blind	87175437	black				one-piece	1.00



Cable entry system KDL-Jumbo

Cable entry system type KDL-Jumbo



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 with a diameter of between 30 mm and 65 mm (1.18 and 2.56 in.) 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

	-22.00 – 212.00 °F
	Polyamide 6.6, PUR
	V0
	(with suitable grommets and cables) IP 65

Type	Part number	Color	No. Openings	Pack qty.
KDL-Jumbo 1	87176110	black	1	1.00
KDL-Jumbo 2	87176120	black	2	1.00

Dimension table

Type	Part number	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







Cable entry grommets type KDT/Z-Jumbo



PRODUCT INFORMATION

The cable entry grommet KDT/Z-Jumbo allows the fitting of cables from 30 – 65 mm (1.18 – 2.56 in.) 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.

SPECIFICATIONS

	-22.00 – 212.00 °F
	TPE-S
	VO
	
	
	

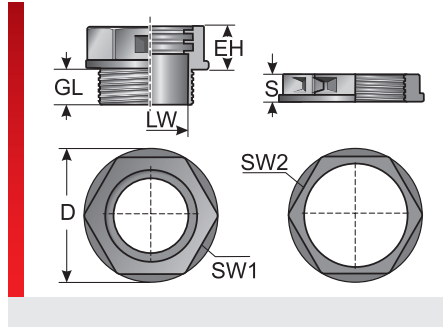
Type	Part number	Color	For Ø inch	No. Openings	Pack qty.
KDT/Z-Jumbo 30-35	87176212	black	1.18 – 1.38	1	1.00
KDT/Z-Jumbo 35-40	87176214	black	1.38 – 1.57	1	1.00
KDT/Z-Jumbo 40-45	87176216	black	1.57 – 1.77	1	1.00
KDT/Z-Jumbo 45-50	87176218	black	1.77 – 1.97	1	1.00
KDT/Z-Jumbo 50-55	87176220	black	1.97 – 2.17	1	1.00
KDT/Z-Jumbo 55-60	87176222	black	2.17 – 2.36	1	1.00
KDT/Z-Jumbo 60-65	87176224	black	2.36 – 2.56	1	1.00
Dummy grommet					
BT-Jumbo	87176210	black			1.00

KDL Jumbo cable entry system



Divisible cable entry system KDL/M

Cable entry type KDL/M



PRODUCT INFORMATION

The KDL/M is a split cable entry system for inserting pre-assembled cables. Depending on the choice of cable entry grommet, up to two 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

SPECIFICATIONS

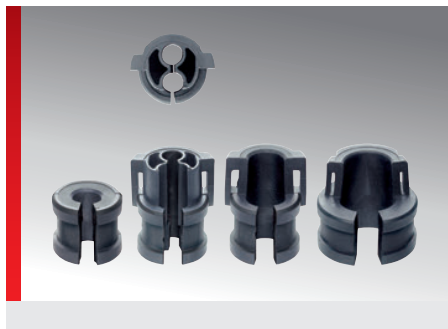
	-40.00 – 176.00 °F
	Polyamide 6
	V0
	(with suitable grommets and cables) IP 54

Type	Part number	Color	No. Openings small / large	Connecting thread	Pack qty.
KDL/M M32	87176010	black	1 / 0	M32x1,5	5.00
KDL/M M50	87176040	black	0 / 1	M50x1,5	5.00

Dimension table

Type	Part number	Installation height inch	EH inch	GL inch	D inch	S inch	SW 1 / 2 inch
KDL/M M32	87176010	0.79	0.59	0.59	1.57	0.39	1.42 / 1.42
KDL/M M50	87176040	0.79	0.79	0.79	2.44	0.47	2.17 / 2.17




Cable entry grommets, type KDT/Z (for KDL/M M32)



PRODUCT INFORMATION

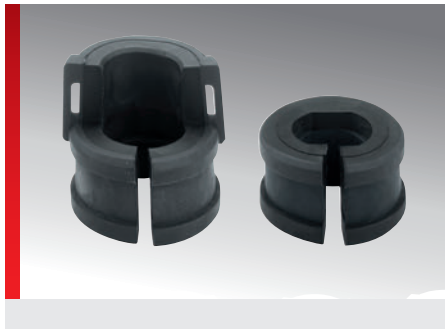
The KDT/Z cable entry grommet allows the fitting of cables from 3 – 16 mm in size in the openings of the KDL/M cable entry plate. With a cable tie, strain relief for cables can be provided very quickly and easily to DIN VDE 0619.

SPECIFICATIONS

	-40.00 – 176.00 °F
	Thermoplastic rubber
	HB
	
	
	

Type	Part number	Color	For Ø inch	For opening small / large	No. Openings	Suitable for Conduit	Pack qty.
Grommet, small							
KDT/Z 03	87171212	black	0.12 – 0.16	• / -	1		10.00
KDT/Z 04	87171214	black	0.16 – 0.20	• / -	1		10.00
KDT/Z 05	87171216	black	0.20 – 0.24	• / -	1		10.00
KDT/Z 06	87171218	black	0.24 – 0.28	• / -	1		10.00
KDT/Z 07	87171220	black	0.28 – 0.31	• / -	1		10.00
KDT/Z 08	87171222	black	0.31 – 0.35	• / -	1		10.00
KDT/Z 09	87171224	black	0.35 – 0.39	• / -	1		10.00
KDT/Z 10	87171226	black	0.39 – 0.43	• / -	1		10.00
KDT/Z 11	87171228	black	0.43 – 0.47	• / -	1		10.00
KDT/Z 12	87171230	black	0.47 – 0.51	• / -	1		10.00
KDT/Z 13	87171232	black	0.51 – 0.55	• / -	1		10.00
KDT/Z 14	87171234	black	0.55 – 0.59	• / -	1		10.00
KDT/Z 15	87171236	black	0.59 – 0.63	• / -	1		10.00
Double cable grommet							
KDT/Z 2x3-4	87175250	black	0.12	• / -	2		10.00
KDT/Z 2x4-5	87175252	black	0.16	• / -	2		10.00
KDT/Z 2x5-6	87175254	black	0.20	• / -	2		10.00
KDT/Z 2x6-7	87175256	black	0.24	• / -	2		10.00
Dummy grommet							
BTK 17 (dummy grommet)	87171210	black		• / -	0		10.00

Cable entry grommets, type KDT/ZN (for KDL/M M50)



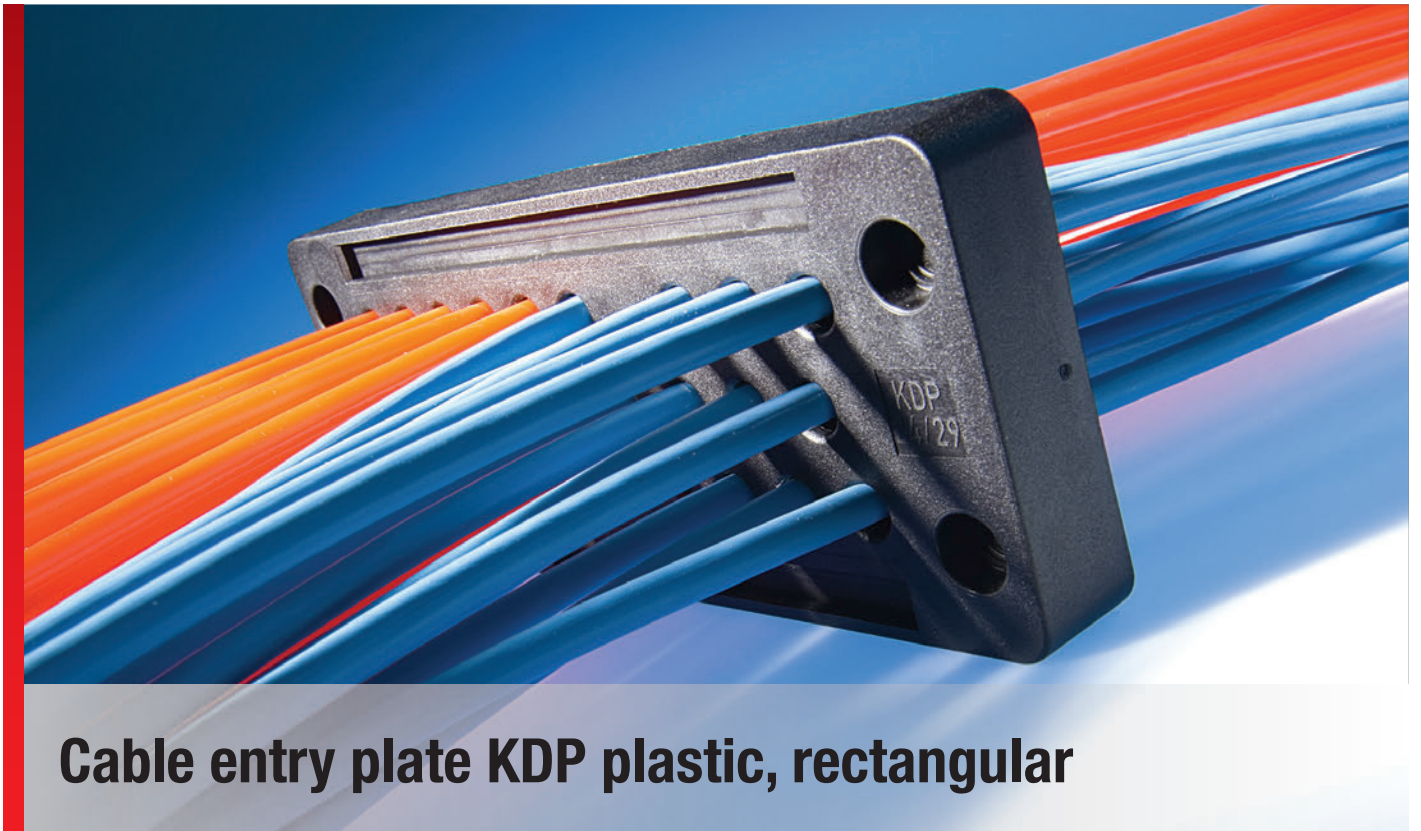
PRODUCT INFORMATION

The KDT/ZN cable entry grommet allows the fitting of cables from 15 to 31 mm (0.59 to 1.22 in) in size in the KDL/M cable entry plate. With a cable tie you can achieve additional strain relief according to DIN VDE 0619.

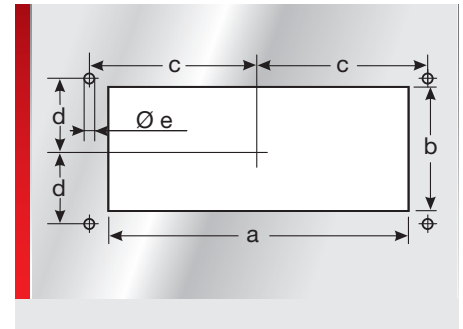
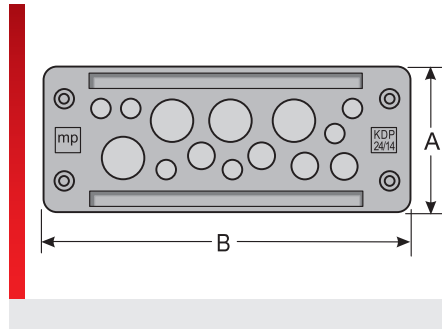
SPECIFICATIONS

	-40.00 – 176.00 °F
	Thermoplastic rubber
	HB

Type	Part number	Color	For Ø inch	For opening small / large	Pack qty.
Grommet adapter (adapter for small grommet)					
ATG/M	87172808	black			10.00
Grommet, large					
KDT/ZN 15	87172811	black	0.59 – 0.63	- / •	10.00
KDT/ZN 16	87172812	black	0.63 – 0.67	- / •	10.00
KDT/ZN 17	87172814	black	0.67 – 0.71	- / •	10.00
KDT/ZN 18	87172816	black	0.71 – 0.75	- / •	10.00
KDT/ZN 19	87172818	black	0.75 – 0.79	- / •	10.00
KDT/ZN 20	87172820	black	0.79 – 0.83	- / •	10.00
KDT/ZN 21	87172822	black	0.83 – 0.87	- / •	10.00
KDT/ZN 22	87172824	black	0.87 – 0.91	- / •	10.00
KDT/ZN 23	87172826	black	0.91 – 0.94	- / •	10.00
KDT/ZN 24	87172828	black	0.94 – 0.98	- / •	10.00
KDT/ZN 25	87172830	black	0.98 – 1.02	- / •	10.00
KDT/ZN 26	87172832	black	1.02 – 1.06	- / •	10.00
KDT/ZN 27	87172834	black	1.06 – 1.10	- / •	10.00
KDT/ZN 28	87172836	black	1.10 – 1.14	- / •	10.00
KDT/ZN 29	87172838	black	1.14 – 1.18	- / •	10.00
KDT/ZN 30	87172840	black	1.18 – 1.22	- / •	10.00
Dummy grommet					
BTG/N32	87172810	black		- / •	10.00



Cable entry plate plastic, type KDP/N 24



PRODUCT INFORMATION

2. generation of our cable entry plates plastic, square with improved clip-in function. Economical connection technology for tool-free wiring of equipment and machinery. Whenever 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.

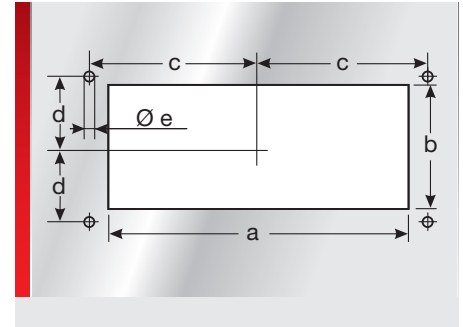
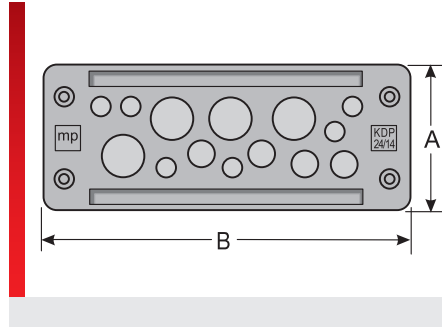
- Snap-in at plate thicknesses of 1.5 to 2.0 mm (0.06 – 0.08 in.)
- High degree of strain relief
- 2 elastomer panels (seals)

SPECIFICATIONS

	-22.00 – 158.00 °F
	Enclosure: Polyamide 6.6 Seal: TPU / NBR / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/N 24/10 ¹⁾	87301108	black	10	2x 0.12 – 0.26	1.00
				1x 0.2 – 0.36	
				5x 0.35 – 0.55	
				2x 0.55 – 0.79	
KDP/N 24/11	87301110	black	11	4x 0.12 – 0.26	1.00
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/N 24/12	87301120	black	12	12x 0.31 – 0.47	1.00
KDP/N 24/13	87301130	black	13	2x 0.12 – 0.22	1.00
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
KDP/N 24/14	87301140	black	14	1x 0.55 – 0.79	1.00
				6x 0.12 – 0.26	
				4x 0.2 – 0.36	
KDP/N 24/17	87301150	black	17	4x 0.38 – 0.63	1.00
				17x 0.2 – 0.36	
				11x 0.12 – 0.26	
KDP/N 24/17-1	87301151	black	17	1x 0.16 – 0.32	1.00
				5x 0.31 – 0.49	
				16x 0.12 – 0.26	
KDP/N 24/22	87301160	black	22	4x 0.2 – 0.36	1.00
				2x 0.31 – 0.49	
				23x 0.16 – 0.32	
KDP/N 24/23	87301170	black	23	23x 0.16 – 0.32	1.00
KDP/N 24/29	87301180	black	29	29x 0.12 – 0.26	1.00

Cable entry plate plastic, type KDP/X 24



PRODUCT INFORMATION

4. Generation of our plastic cable entry plates, rectangular with improved clip-in function and only one elastomer panel. Economical connection technology for tool-free wiring of equipment and machinery. Whenever the rapid and economical introduction of cables and/or pneumatic hoses in confined spaces is essential. The alternative to cable fit-

tings. 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 1.5 to 2.0 mm (0.06 – 0.08 in.)
- High degree of strain relief

SPECIFICATIONS

	-22.00 – 158.00 °F
	Enclosure: Polyamide 6.6 Seal: TPU / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/X 24/10 ¹⁾	87301305	black	10	2x 0.12 – 0.26	1.00
				1x 0.2 – 0.36	
				5x 0.35 – 0.55	
				2x 0.55 – 0.79	
KDP/X 24/11	87301315	black	11	4x 0.12 – 0.26	1.00
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/X 24/12	87301325	black	12	12x 0.31 – 0.47	1.00
KDP/X 24/13	87301335	black	13	2x 0.12 – 0.22	1.00
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
				1x 0.55 – 0.79	
KDP/X 24/14	87301345	black	14	6x 0.12 – 0.26	1.00
				4x 0.2 – 0.36	
				4x 0.38 – 0.63	
KDP/X 24/17	87301355	black	17	17x 0.2 – 0.36	1.00
KDP/X 24/17-1	87301356	black	17	11x 0.12 – 0.26	1.00
				1x 0.16 – 0.32	
				5x 0.31 – 0.49	
KDP/X 24/22	87301365	black	22	16x 0.12 – 0.26	1.00
				4x 0.2 – 0.36	
				2x 0.31 – 0.49	
KDP/X 24/23	87301375	black	23	23x 0.16 – 0.32	1.00
KDP/X 24/29	87301385	black	29	29x 0.12 – 0.26	1.00

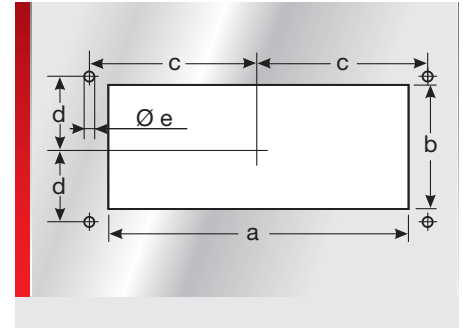
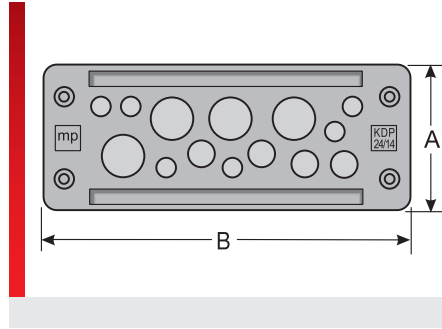
Cable entry plate plastic, type KDP/X 24 (Continued...)

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
1) No UR approval					

Dimension table

Type	Part number	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP/X 24/10 ¹⁾	87301305	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/11	87301315	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/12	87301325	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/13	87301335	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/14	87301345	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/17	87301355	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/17-1	87301356	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/22	87301365	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/23	87301375	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/X 24/29	87301385	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22

Cable entry plate, type KDP/E 24



PRODUCT INFORMATION

3. Generation of our plastic cable entry plates, rectangular with improved clip-in function and only one elastomer panel.

Economical connection technology for tool-free wiring of equipment and machinery. Whenever 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.

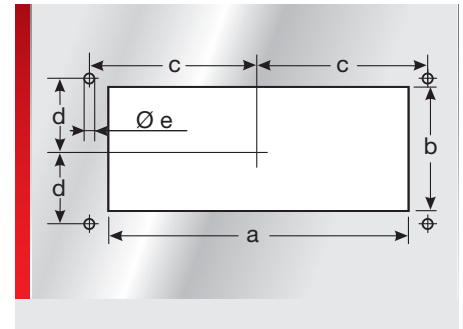
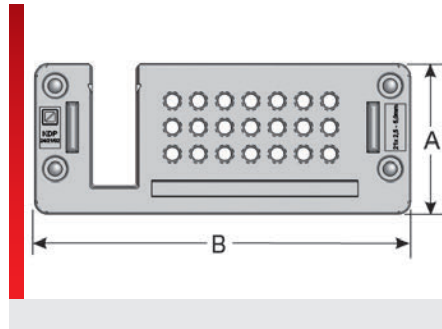
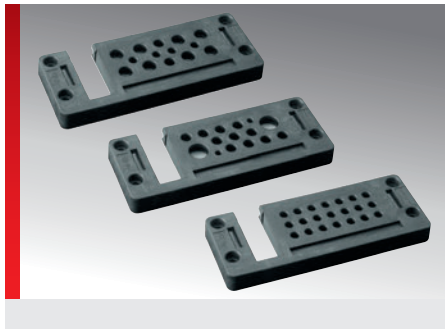
- Snap-in at plate thicknesses of 1.5 to 2.0 mm (0.06 – 0.08 in.)
- Lower strain relief
- Introduction of larger cable diameters is possible
- Introduction from both sides is possible

SPECIFICATIONS

	-22.00 – 158.00 °F
	Frame: Polyamide 6.6 Seal: TPU / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/E 24/11	87301310	black	11	4x 0.12 – 0.26	1.00
				4x 0.2 – 0.36	
				3x 0.55 – 0.79	
KDP/E 24/12	87301320	black	12	12x 0.31 – 0.47	1.00
KDP/E 24/13	87301330	black	13	2x 0.12 – 0.22	1.00
				6x 0.16 – 0.32	
				4x 0.35 – 0.55	
KDP/E 24/14	87301340	black	14	1x 0.55 – 0.79	1.00
				6x 0.12 – 0.26	
				4x 0.2 – 0.36	
KDP/E 24/17	87301350	black	17	4x 0.38 – 0.63	1.00
				17x 0.2 – 0.36	
				11x 0.12 – 0.26	
KDP/E 24/17-1	87301351	black	17	1x 0.16 – 0.32	1.00
				5x 0.31 – 0.49	
				16x 0.12 – 0.26	
KDP/E 24/22	87301360	black	22	4x 0.2 – 0.36	1.00
				2x 0.31 – 0.49	
				23x 0.16 – 0.32	
KDP/E 24/23	87301370	black	23	23x 0.16 – 0.32	1.00
KDP/E 24/29	87301380	black	29	29x 0.12 – 0.26	1.00

Cable entry plate KDP 24-Multi



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 connectors have to be brought into the control cabinet next to cables without connectors. These cable entry plates take up to four preassembled cables in two grommets.

- Catch hook for 1.5 – 2.0 mm (0.06 – 0.08 in.) plate thickness included with delivery, additional catch hooks for up to 4.1 mm (0.16 in.) plate thickness available

SPECIFICATIONS

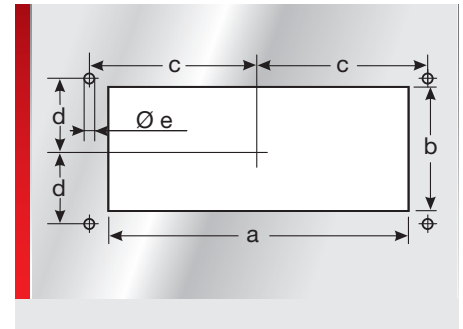
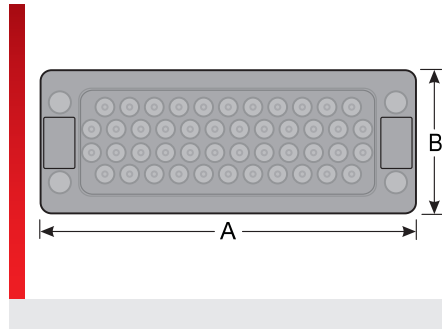
	-22.00 – 158.00 °F
	Enclosure: Polyamide Seal: TPU / NBR / EPDM
	IP 54

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	No. Grommets	Pack qty.
KDP 24/10/02	87301076	black	10	4x 0.12 – 0.26	2	1.00
				2x 0.18 – 0.33		
				4x 0.31 – 0.49		
KDP 24/14/02	87301078	black	14	4x 0.1 – 0.2	2	1.00
				2x 0.12 – 0.26		
				8x 0.18 – 0.33		
KDP 24/15/02	87301080	black	15	2x 0.06 – 0.14	2	1.00
				11x 0.12 – 0.26		
				2x 0.33 – 0.49		
KDP 24/17/02	87301082	black	17	17x 0.12 – 0.26	2	1.00
KDP 24/20/02	87301084	black	20	4x 0.06 – 0.14	2	1.00
				6x 0.12 – 0.2		
				10x 0.12 – 0.26		
KDP 24/21/02	87301086	black	21	21x 0.1 – 0.2	2	1.00

Dimension table

Type	Part number	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

Cable entry plate plastic, type KDP/F 24



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

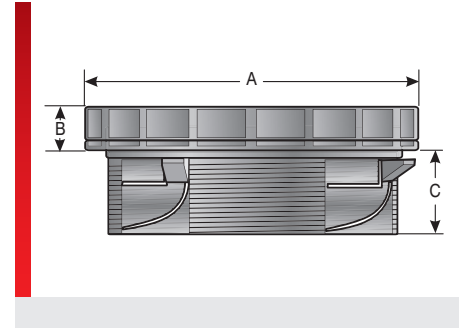
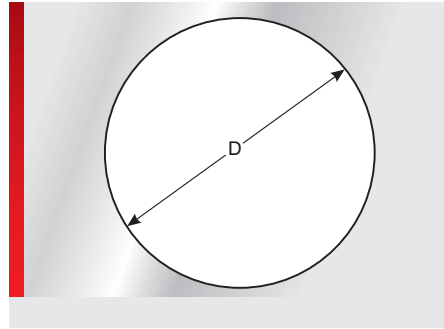
SPECIFICATIONS

- 22.00 – 158.00 °F
- Frame: Polypropylene (PP)
Seal: TPE
- HB
- IP 65
- RoHS
- Made in Germany

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.
KDP/F 24-14	87302010	black	14	6x max. 0.35	1.00
				4x max. 0.43	
				4x max. 0.71	
KDP/F 24-14	87302011	black	14	6x max. 0.35	100.00
				4x max. 0.43	
				4x max. 0.71	
KDP/F 24-22	87302020	black	22	16x max. 0.35	1.00
				4x max. 0.43	
				2x max. 0.59	
KDP/F 24-22	87302021	black	22	16x max. 0.35	100.00
				4x max. 0.43	
				2x max. 0.59	
KDP/F 24-28	87302040	black	28	28x max. 0.35	1.00
KDP/F 24-28	87302041	black	28	28x max. 0.35	100.00
KDP/F 24-46	87302050	black	46	46x max. 0.26	1.00
KDP/F 24-46	87302051	black	46	46x max. 0.26	100.00
KDP/F 24-multi	87302030	black	3	3x max. 1.06	1.00
KDP/F 24-multi	87302031	black	3	3x max. 1.06	100.00



Cable entry plate, round, type KDP/R



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 1.5 – 2.0 mm (0.06 – 0.08 in.) plates
- Integrated seal
- Compact design
- High protection class

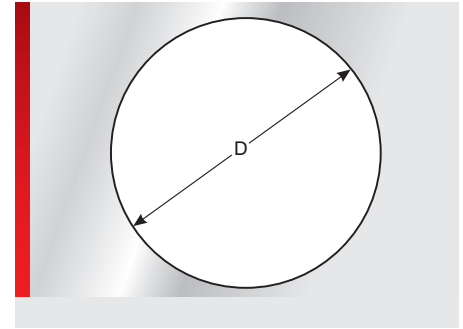
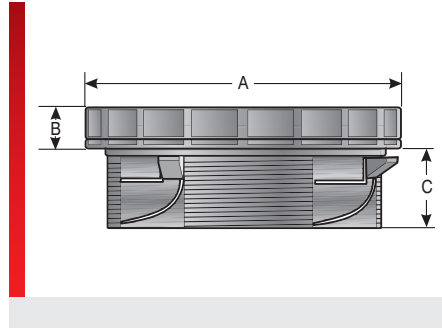
SPECIFICATIONS

	-22.00 – 194.00 °F
	Enclosure: Polyamide 6.6 Seal: NBR / EPDM
	IP 65

Type	Part number	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	1.00
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	1.00
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	1.00
KDP/R M50/31 ¹⁾	87301038	black	31	31x 0.06 – 0.12	M50x1,5	2.28	0.35	0.94	1.99	1.00
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	1.00
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	1.00
KDP/R M63/19	87301044	black	19	19x 0.12 – 0.2	M63x1,5	2.80	0.35	0.98	2.50	1.00
KDP/R M63/46 ¹⁾	87301048	black	46	46x 0.06 – 0.12	M63x1,5	2.80	0.35	0.98	2.50	1.00

¹⁾No UR approval

Cable entry plate, round, type KDP/R-KGM



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.

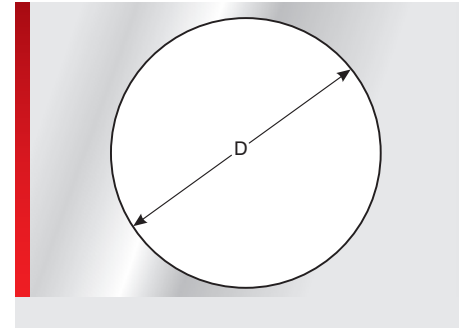
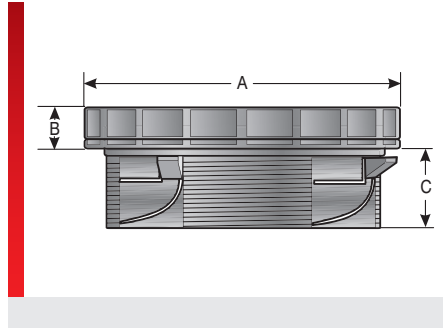
- For snapping into 1.5 – 2.0 mm (0.06 – 0.08 in.) plates
- Integrated seal
- Compact design
- High protection class
- Supply includes the lock nut

SPECIFICATIONS

	-22.00 – 194.00 °F
	Enclosure: Polyamide 6.6 Seal: NBR / EPDM
	IP 65

Type	Part number	Color	No. of openings Total	Openings Quantity / Ø inch	Thread metric	A inch	B inch	C inch	D inch	Pack qty.
KDP/R-KGM M50/04	87301031	black	4	3x 0.24 – 0.39 1x 0.38 – 0.63	M50x1,5	2.28	0.35	0.94	1.99	1.00
KDP/R-KGM M50/06	87301033	black	6	1x 0.12 – 0.22 5x 0.2 – 0.36	M50x1,5	2.28	0.35	0.94	1.99	1.00
KDP/R-KGM M50/08	87301035	black	8	7x 0.14 – 0.26 1x 0.24 – 0.39	M50x1,5	2.28	0.35	0.94	1.99	1.00
KDP/R-KGM M50/31	87301039	black	31	31x 0.06 – 0.12	M50x1,5	2.28	0.35	0.94	1.99	1.00
KDP/R-KGM M63/08	87301041	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	1.00
KDP/R-KGM M63/13	87301043	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	1.00
KDP/R-KGM M63/19	87301045	black	19	19x 0.12 – 0.2	M63x1,5	2.80	0.35	0.98	2.50	1.00
KDP/R-KGM M63/46	87301049	black	46	46x 0.06 – 0.12	M63x1,5	2.80	0.35	0.98	2.50	1.00

Cable entry plate round, type KDPR/F



PRODUCT INFORMATION

The KDPR/F cable entry plate is made of modified Polypropylene and is a round entry and fastening system for cables without connectors 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.

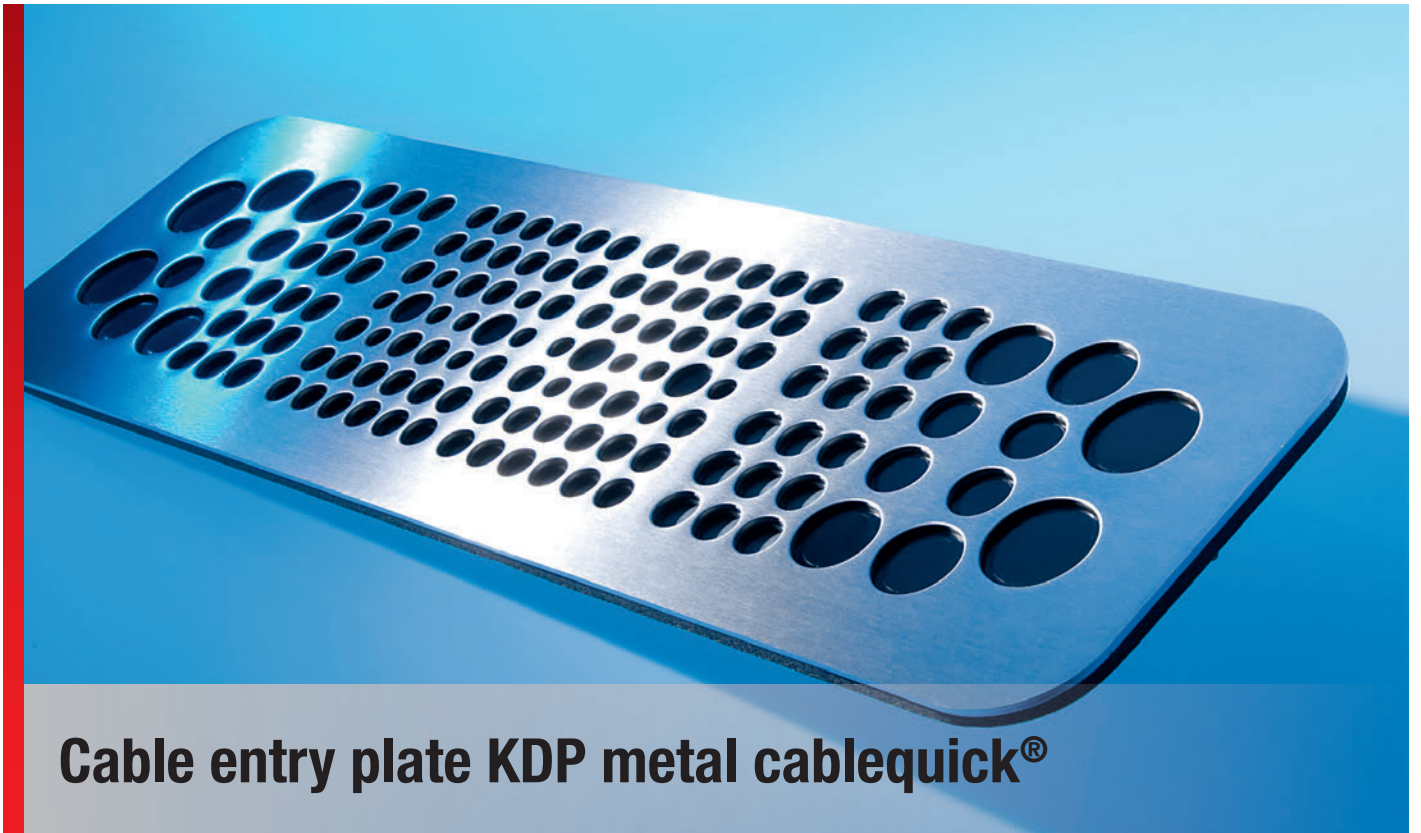
Special benefits of the KDPR/F are:

- 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

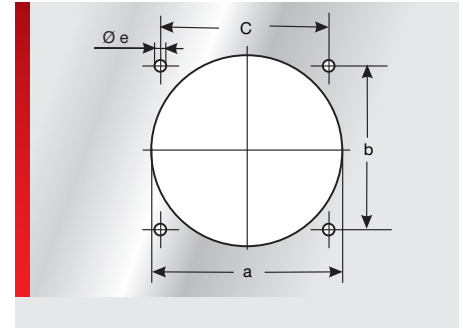
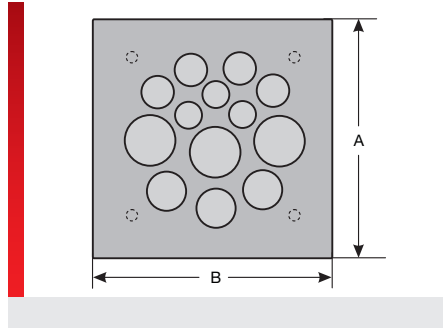
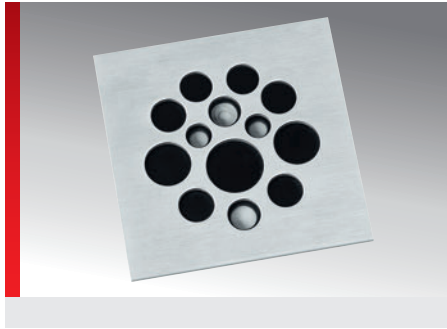
SPECIFICATIONS

	-22.00 – 158.00 °F
	Frame: Polypropylene (PP) Seal: TPE
	HB
	IP 65
	RoHS
	Made in Germany

Type	Part number	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	5.00
KDPR/F 40/multi	87302070	black	2x max. 0.55	M40x1,5	0.26	1.59	5.00



cablequick® type 90 (90x90 mm (3.54x3.54 in.))



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 : 1.0037

SPECIFICATIONS

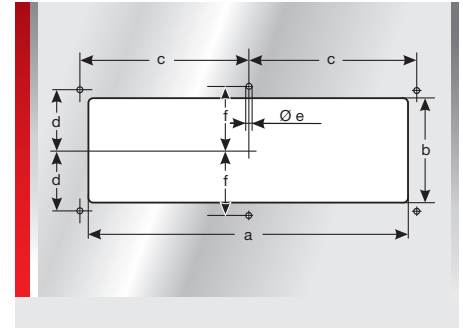
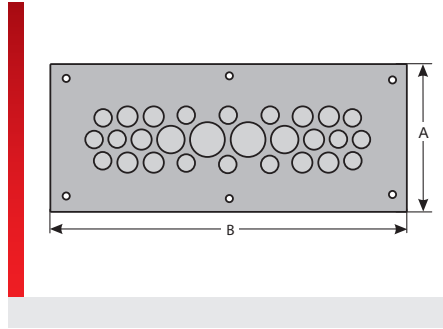
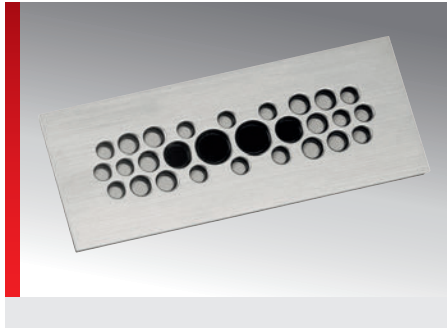
	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/13 V4A	87663118	Smoothed	13	2x 0.12 – 0.24	1.00
				4x 0.18 – 0.33	
				4x 0.24 – 0.39	
				2x 0.35 – 0.55	
				1x 0.55 – 0.71	

Dimension table

Type	Part number	A inch	B inch	a inch	b inch	c inch	e inch
KDP 90/13 V4A	87663118	3.54	3.54	75.00	2.52	2.52	0.18

cablequick® type 90 (90x221 mm (3.54x8.70 in.))



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 : 1.0037
- Rittal cut-out 2

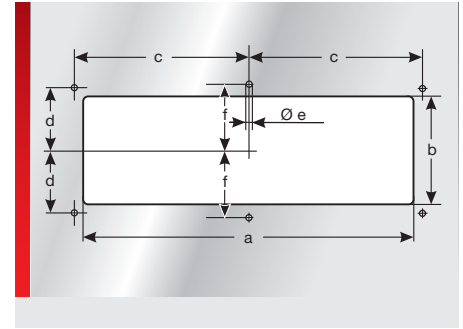
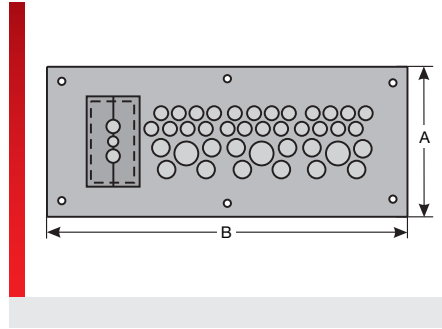
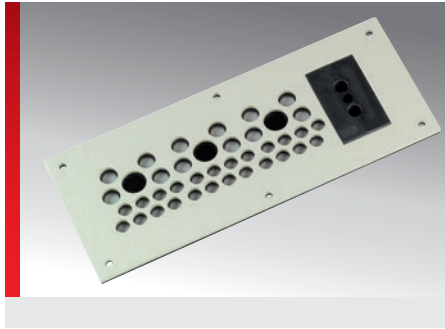
SPECIFICATIONS

	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/18 V4A ¹⁾	87663028	Smoothed	18	9x 0.24 – 0.39	1.00
				8x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 90/28 ALU	87663032	RAL 7035	28	14x 0.16 – 0.31	1.00
KDP 90/28 V4A	87663034	Smoothed	28	10x 0.24 – 0.39	1.00
				2x 0.35 – 0.55	
				2x 0.47 – 0.71	
KDP 90/47 ALU ¹⁾	87663037	RAL 7035	47	14x 0.14 – 0.26	1.00
				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	1.00
				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	1.00
				32x 0.12 – 0.24	
				16x 0.16 – 0.31	
				4x 0.31 – 0.47	

¹⁾ No UR approval

cablquick® type 90+3 (90x221 mm (3.54x8.70 in.))



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 connector size of 48 x 24 mm (1.89 – 0.94 in.) 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 : 1.0037
- Rittal cut-out 2

SPECIFICATIONS

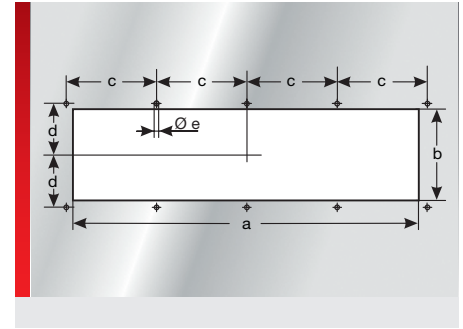
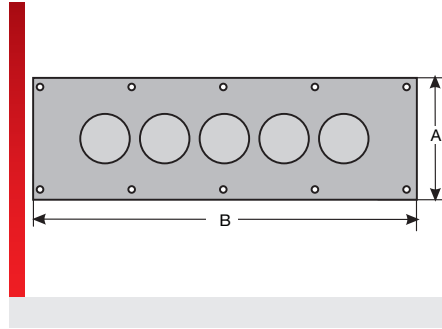
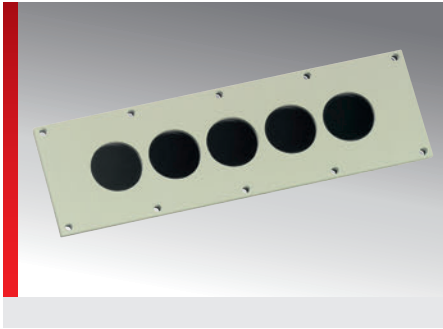
	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/39+3 ALU	87663036	RAL 7035	42	24x 0.12 – 0.24	1.00
				12x 0.16 – 0.31	
				3x 0.31 – 0.47	
KDP 90/39+3 V4A	87663038	Smoothed	42	24x 0.12 – 0.24	1.00
				12x 0.16 – 0.31	
				3x 0.31 – 0.47	

Dimension table

Type	Part number	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

cablquick® type 90 (90x294 mm (3.54x11.57 in.))



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 : 1.0037

SPECIFICATIONS

	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

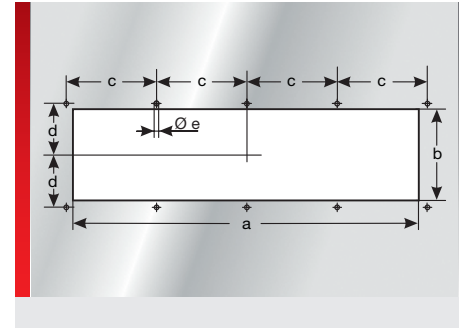
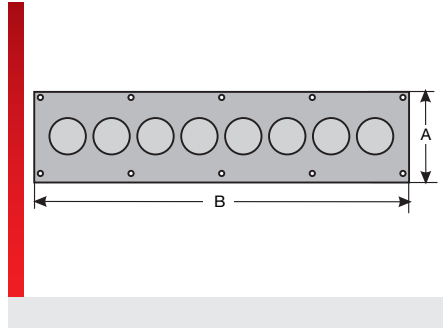
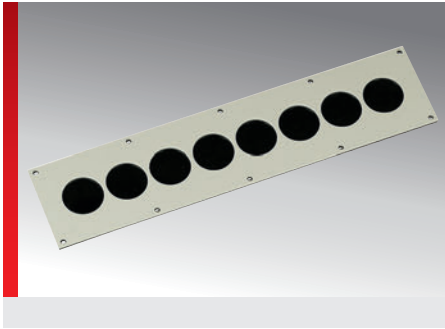
Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/5 ALU ¹⁾	87663029	RAL 7035	5	5x 0.63 – 1.1	1.00

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

Dimension table

Type	Part number	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

cablquick® type 90 (90x394 mm (3.54x15.51 in.))



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 : 1.0037

SPECIFICATIONS

	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

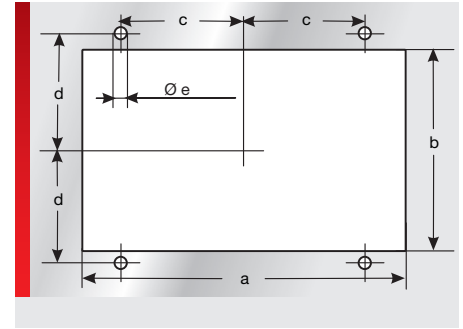
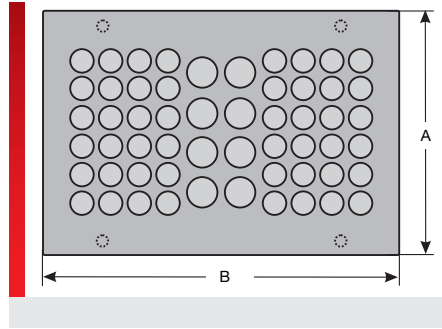
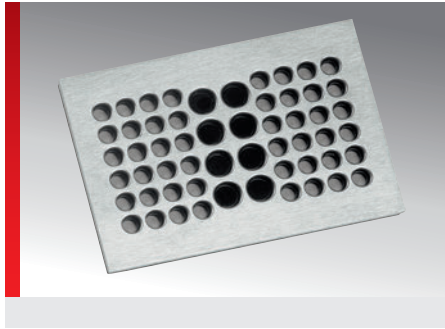
Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 90/8 ALU ¹⁾	87663026	RAL 7035	8	8x 0.63 – 1.1	1.00

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

Dimension table

Type	Part number	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP 90/8 ALU ¹⁾	87663026	3.54	15.51	14.61	2.80	3.74	1.56	0.22

cablquick® type 100 (100x145 mm (3.94x5.71 in.))



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 100 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.

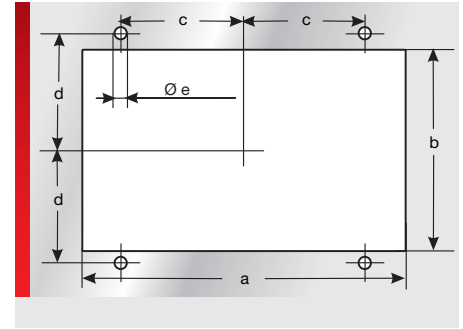
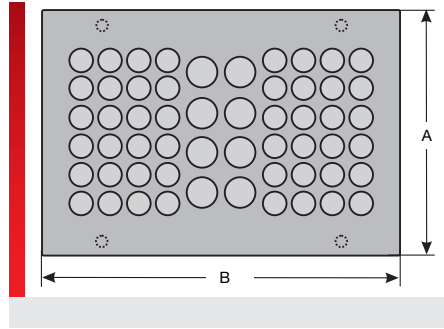
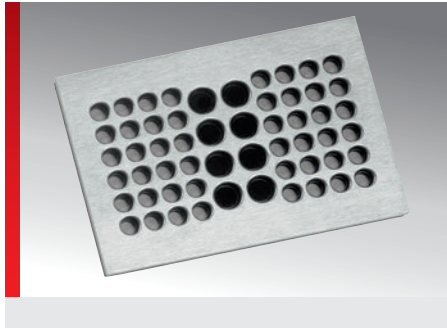
- V4A : 1.4571
- ALU : 3.3535
- ST : 1.0037

SPECIFICATIONS

- 22.00 – 194.00 °F
- Seal: NBR / EPDM
- IP 65
- RoHS
- CE
- UL

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 100/6 V4A	87663116	Smoothed	6	6x 0.63 – 0.94	1.00
KDP 100/15 V4A	87663120	Smoothed	15	3x 0.31 – 0.47 12x 0.43 – 0.63	1.00
KDP 100/18 V4A	87663122	Smoothed	18	18x 0.31 – 0.47	1.00
KDP 100/24 V4A	87663124	Smoothed	24	24x 0.24 – 0.41	1.00
KDP 100/30 V4A	87663062	Smoothed	30	12x 0.14 – 0.24 12x 0.24 – 0.39 6x 0.35 – 0.55	1.00
KDP 100/30B V4A	87663063	Smoothed	30	12x 0.14 – 0.24 12x 0.24 – 0.39 4x 0.35 – 0.55 2x 0.47 – 0.71	1.00
KDP 100/40 V4A	87663061	Smoothed	40	40x 0.18 – 0.33	1.00
KDP 100/56 V4A	87663060	Smoothed	56	48x 0.14 – 0.24 8x 0.24 – 0.39	1.00
KDP 100/56B V4A	87663065	Smoothed	56	48x 0.04 – 0.14 8x 0.14 – 0.26	1.00
KDP 100/56C V4A	87663067	Smoothed	56	48x 0.04 – 0.14 4x 0.14 – 0.26 4x 0.24 – 0.39	1.00

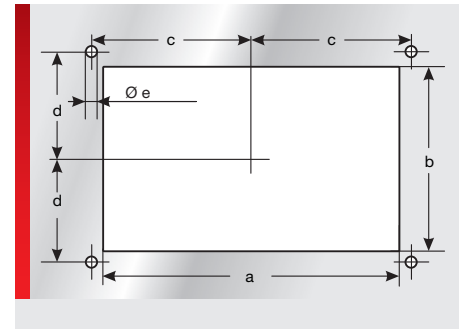
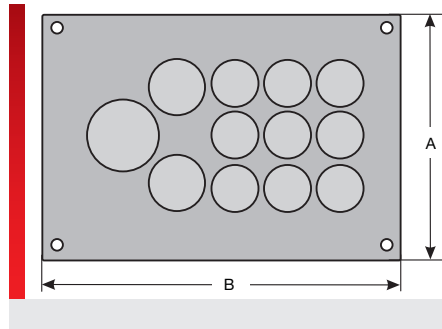
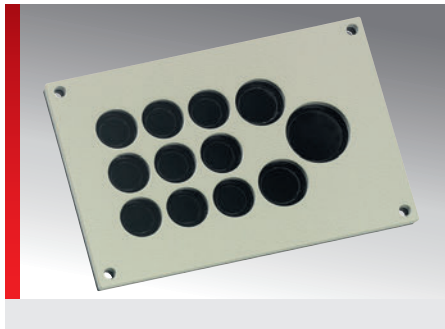
cablquick® type 100 (100x145 mm (3.94x5.71 in.)) (Continued...)



Dimension table

Type	Part number	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP 100/6 V4A	87663116	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/15 V4A	87663120	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/18 V4A	87663122	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/24 V4A	87663124	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/30 V4A	87663062	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/30B V4A	87663063	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/40 V4A	87663061	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/56 V4A	87663060	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/56B V4A	87663065	3.94	5.71	5.20	3.23	1.97	1.77	0.18
KDP 100/56C V4A	87663067	3.94	5.71	5.20	3.23	1.97	1.77	0.18

cablquick® type 105 (105x155 mm (4.13x6.10 in.))






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.

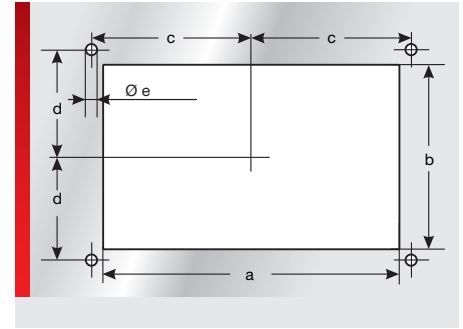
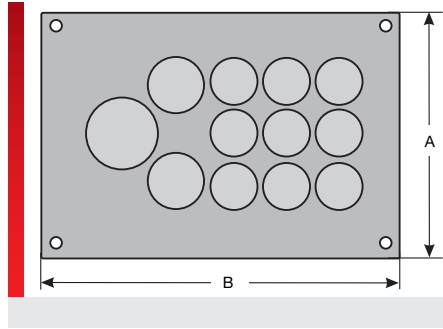
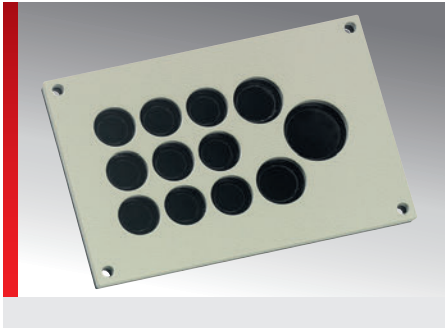
- V4A : 1.4571
- ALU : 3.3535
- ST : 1.0037

SPECIFICATIONS

	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65
	
	
	

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 105/12 ALU	87663056	RAL 7035	12	9x 0.35 – 0.55	1.00
				2x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 105/12 V4A	87663057	Smoothed	12	9x 0.35 – 0.55	1.00
				2x 0.47 – 0.71	
				1x 0.71 – 0.98	
KDP 105/15 ALU	87663014	RAL 7035	15	8x 0.24 – 0.39	1.00
				4x 0.35 – 0.63	
				3x 0.47 – 0.71	
KDP 105/15 V4A	87663016	Smoothed	15	8x 0.24 – 0.39	1.00
				4x 0.35 – 0.55	
				3x 0.47 – 0.71	
KDP 105/32 ALU	87663010	RAL 7035	32	16x 0.12 – 0.2	1.00
				12x 0.16 – 0.31	
				4x 0.24 – 0.39	
KDP 105/32 V4A	87663012	Smoothed	32	16x 0.12 – 0.2	1.00
				12x 0.16 – 0.31	
				4x 0.24 – 0.39	

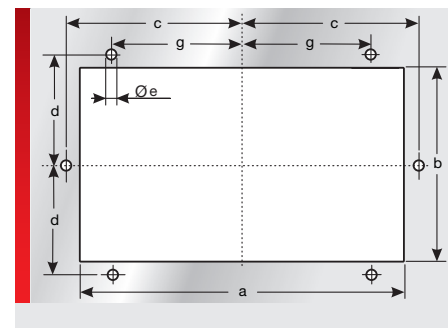
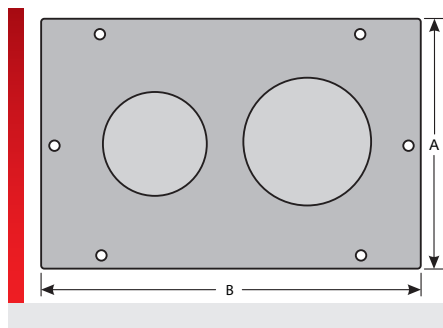
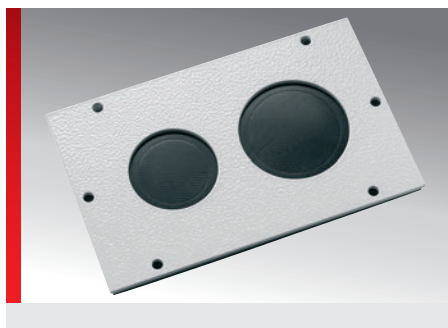
cablequick® type 105 (105x155 mm (4.13x6.10 in.)) (Continued...)



Dimension table

Type	Part number	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
KDP 105/15 V4A	87663016	4.13	6.10	5.20	3.23	2.81	1.83	0.22
KDP 105/32 ALU	87663010	4.13	6.10	5.20	3.23	2.81	1.83	0.22
KDP 105/32 V4A	87663012	4.13	6.10	5.20	3.23	2.81	1.83	0.22

cablquick® type 120 (120x190 mm (4.72x7.48 in.))



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.

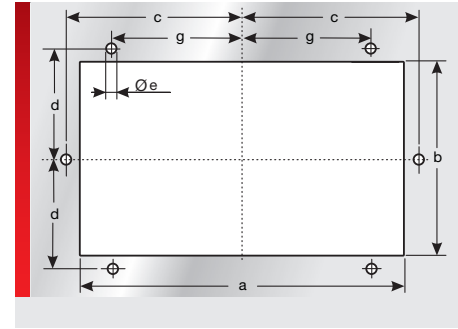
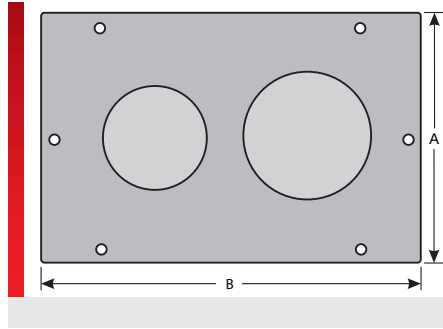
- V4A : 1.4571
- ALU : 3.3535
- ST : 1.0037

SPECIFICATIONS

- 22.00 – 194.00 °F
- Seal: NBR / EPDM
- IP 65
- RoHS
-

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 120/17 V4A	87663143	Smoothed	17	6x 0.24 – 0.39	1.00
				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	1.00
KDP 120/2 C V4A	87663142	Smoothed	2	1x 0.71 – 1.42	1.00
				1x 1.42 – 1.93	
KDP 120/2 V4A	87663140	Smoothed	2	2x 0.71 – 1.42	1.00
KDP 120/35 V4A	87663144	Smoothed	35	8x 0.14 – 0.26	1.00
				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	1.00
KDP 120/2 B ALU	87663002	RAL 7035	2	2x 1.42 – 1.93	1.00
KDP 120/2 C ALU	87663003	RAL 7035	2	1x 0.71 – 1.42	1.00
				1x 1.42 – 1.93	
KDP 120/17 ALU	87663004	RAL 7035	17	6x 0.24 – 0.39	1.00
				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	1.00
				18x 0.24 – 0.39	
				7x 0.38 – 0.63	

cablequick® type 120 (120x190 mm (4.72x7.48 in.)) (Continued...)

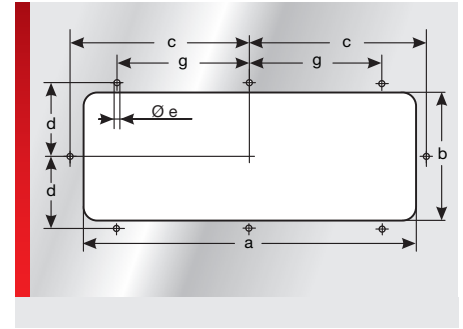
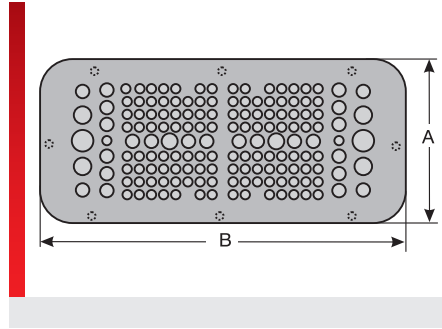
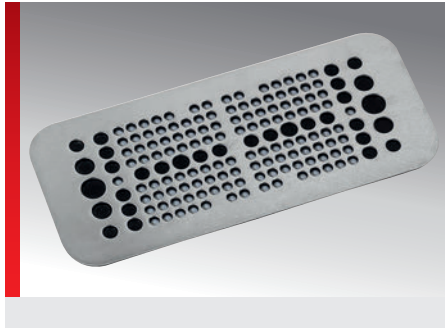


Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
				2x 0.55 – 0.79	

Dimension table

Type	Part number	A inch	B inch	a inch	b inch	c inch	d inch	e inch	g inch
KDP 120/17 V4A	87663143	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 B V4A	87663141	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 C V4A	87663142	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 V4A	87663140	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/35 V4A	87663144	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 ALU	87663001	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 B ALU	87663002	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/2 C ALU	87663003	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/17 ALU	87663004	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56
KDP 120/35 ALU	87663005	4.72	7.48	6.46	3.70	3.46	2.09	0.22	2.56

cablquick® type 149 (149x339 mm (5.87x13.35 in.))



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 suit-

able 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 : 1.0037
 Rittal cut-out 4

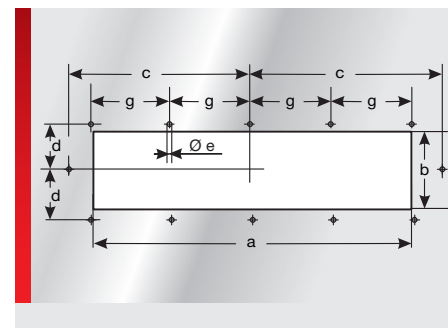
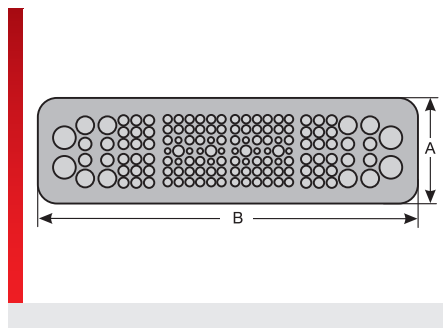
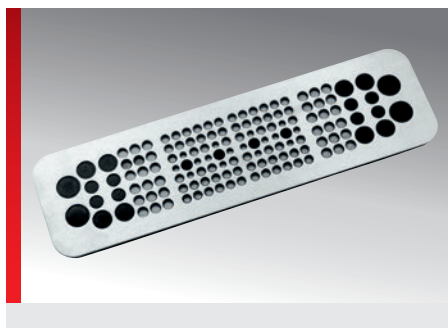
SPECIFICATIONS

- 22.00 – 194.00 °F
- Seal: NBR / EPDM
- IP 65
- RoHS
-
-

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 149/158, Alu	87663089	RAL 7035	158	126x 0.14 – 0.24	1.00
				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	1.00
				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	1.00
				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	1.00
				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	1.00
				24x 0.24 – 0.39	
				6x 0.31 – 0.47	
				2x 0.47 – 0.71	

¹⁾ No UR approval

cablquick® type 149 (149x534 mm (5.87x21.02 in.))



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 suit-

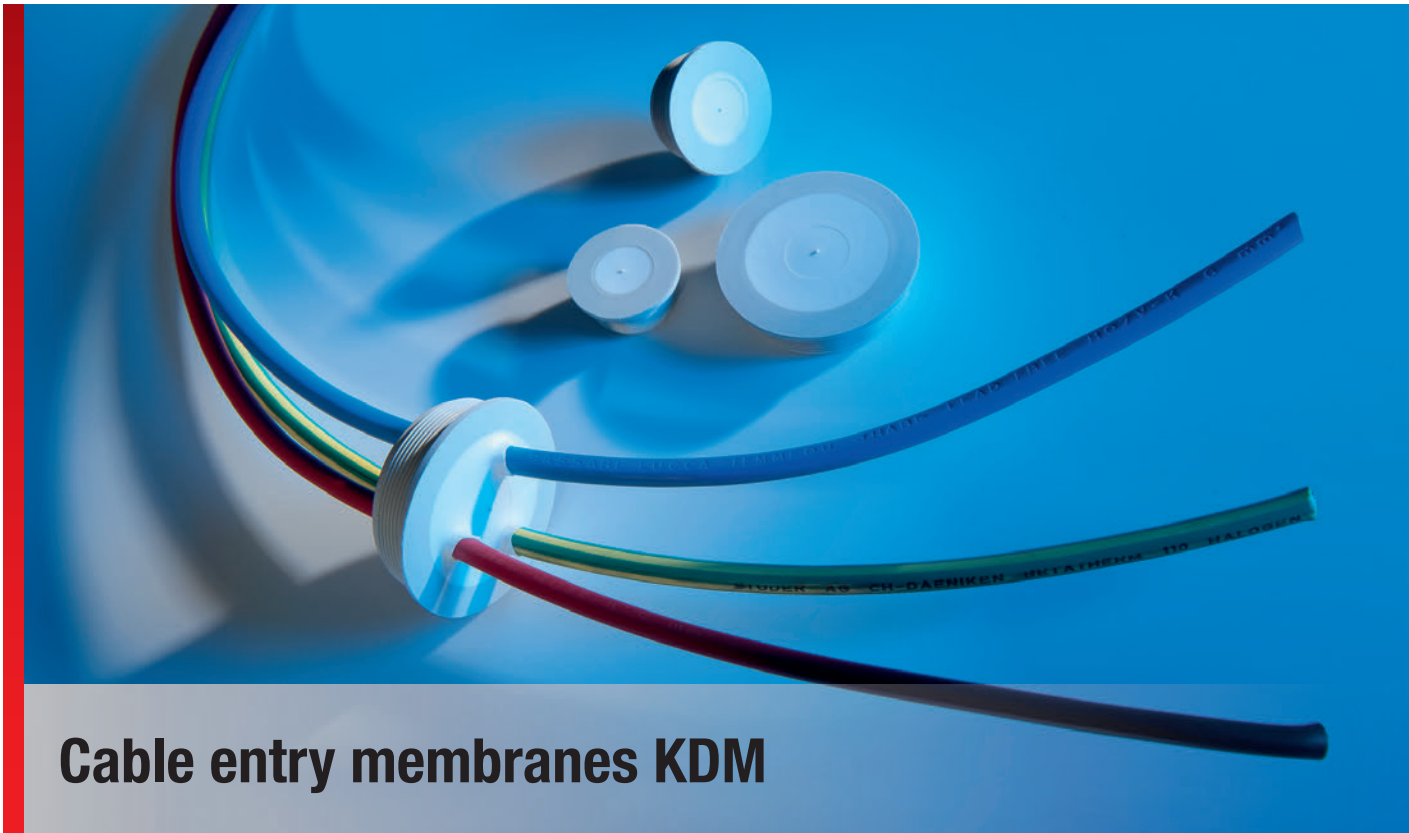
able for application in the food and chemical areas. Integrated threaded bolts mean that no screws are visible from outside. Mounting set included in delivery.

- V4A : 1.4571
- ALU : 3.3535
- ST : 1.0037
- Rittal cut-out 5

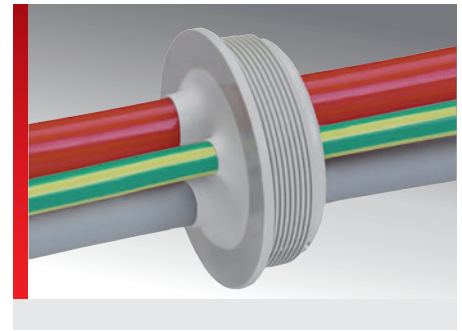
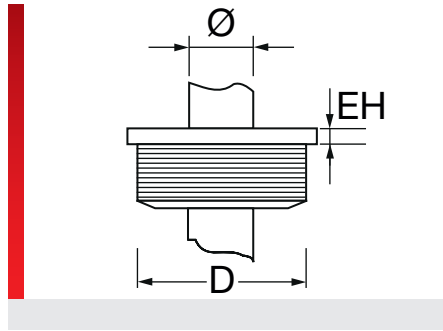
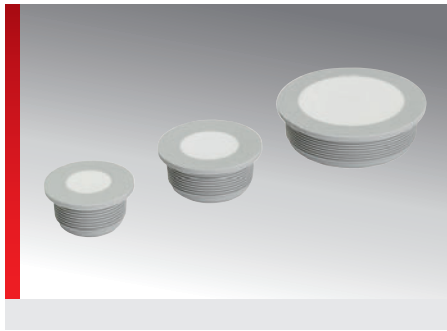
SPECIFICATIONS

	-22.00 – 194.00 °F
	Seal: NBR / EPDM
	IP 65

Type	Part number	Color	No. Openings	Openings No. Ø inch	Pack qty.
KDP 149/140 ALU	87663095	RAL 7035	140	16x 0.14 – 0.24	1.00
				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	
KDP 149/292 ALU	87663079	RAL 7035	292	250x 0.14 – 0.24	1.00
				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	1.00
				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	1.00
				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	
KDP 149/292 V4A	87663066	Smoothed	292	250x 0.14 – 0.24	1.00



Cable entry membranes, type KDM



PRODUCT INFORMATION

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

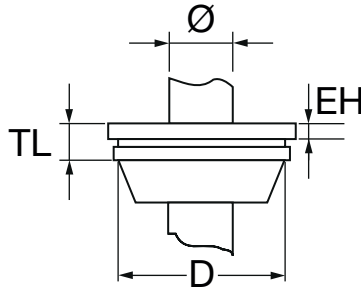
- Easy no-tool push-fit installation
- Extremely high tightness IP66
- Very flexible diameter ranges (more than one cable option)
- Fits on standard cut-outs of M16 to M32

SPECIFICATIONS

	-40.00 – 176.00 °F
	Enclosure: Polyethylene Seal: TPE
	from plate thickn. of 2.0 mm (0.08 in) IP 66 for plate thickness of 1.5-2.0 mm (0.06 – 0.08 in) IP 65
	RoHS

Type	Part number	Color	For Ø inch	EH inch	D inch	Pack qty.
KDM M16	87401010	Gray	0.04 – 0.35	0.06	0.64	50.00
KDM M20	87401012	Gray	0.04 – 0.51	0.06	0.80	50.00
KDM M25	87401014	Gray	0.04 – 0.71	0.06	1.00	50.00
KDM M32	87401016	Gray	0.04 – 0.98	0.06	1.28	50.00

Cable entry membranes, type KDM/G



PRODUCT INFORMATION

KDM/G is a cable entry system for cables without plug connectors. The various sizes fit on metric cut-outs from M12 to M50 and are specially designed for cable diameters 4 – 35 mm (0.16 – 1.38 in).

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

SPECIFICATIONS

- 40.00 – 230.00 °F
- EPDM
- IP for plate thickness of 1.0 – 4.0 mm (0.04 – 0.16 in) IP 65
- RoHS

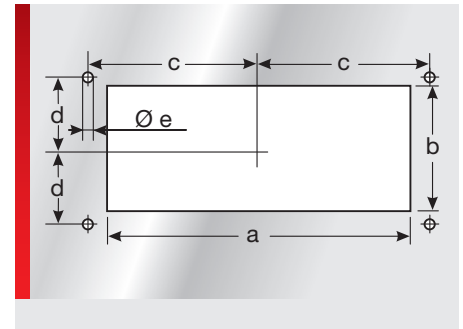
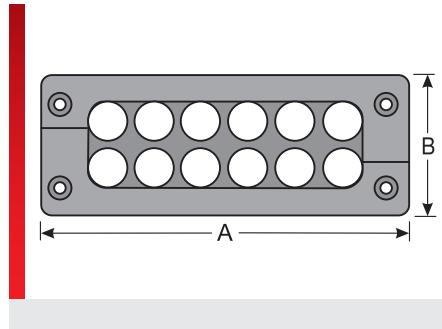
Type	Part number	Color	For Ø inch	EH inch	TL inch	D inch	Pack qty.
KDM/G M12	87401020	Gray	0.16 – 0.28	0.28	0.51	0.48	50.00
KDM/G M16	87401022	Gray	0.20 – 0.39	0.28	0.71	0.64	50.00
KDM/G M20	87401024	Gray	0.31 – 0.51	0.28	0.79	0.80	50.00
KDM/G M25	87401026	Gray	0.43 – 0.67	0.28	0.85	1.00	50.00
KDM/G M32	87401028	Gray	0.59 – 0.83	0.28	0.98	1.28	50.00
KDM/G M40	87401030	Gray	0.75 – 1.06	0.31	1.18	1.59	25.00
KDM/G M50	87401032	Gray	1.10 – 1.38	0.37	1.38	1.99	10.00



Cable entry plates for railway technology



Type 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 45545-2:2013)
- Cable infeed without interruption
- Standardized cut-out dimensions
- Easy assembly
- High protection class to IP 65
- Very robust construction
- Integrated strain relief

SPECIFICATIONS

	-22.00 – 212.00 °F
	Frame: Polyamide Block: TPE
	V0
	(with suitable grommets and cables) IP 65

Type	Part number	Color	No. Openings small / large	Pack qty.
For standard cut-out size 24				
KDL/D-EN 24/12	87141110	black	12 / 0	1.00
KDL/D-EN 24/9	87141122	black	8 / 1	1.00
KDL/D-EN 24/8	87141118	black	6 / 2	1.00
KDL/D-EN 24/4	87141114	black	0 / 4	1.00
For standard cut-out size 16				
KDL/D-EN 16/8	87141126	black	8 / 0	1.00
KDL/D-EN 16/7	87141130	black	6 / 1	1.00
KDL/D-EN 16/3	87141134	black	0 / 3	1.00
For standard cut-out size 10				
KDL/D-EN 10/6	87141138	black	6 / 0	1.00
KDL/D-EN 10/5	87141142	black	4 / 1	1.00
KDL/D-EN 10/2	87141139	black	0 / 2	1.00
For standard cut-out size 6				
KDL/D-EN 6/4	87141144	black	4 / 0	1.00
Special size				
KDL/D-EN 1/6	87141148	black	6 / 0	1.00

Type KDT/X-EN cable entry grommet









PRODUCT INFORMATION

The KDT/X-EN cable entry grommet, in conjunction with the KDL/EN cable entry system, can be used to easily insert and route pre-assembled cables e.g. in control cabinets. The grommet is 1-piece and is subsequently positioned around the cable.

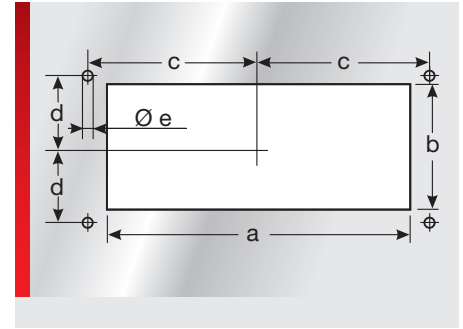
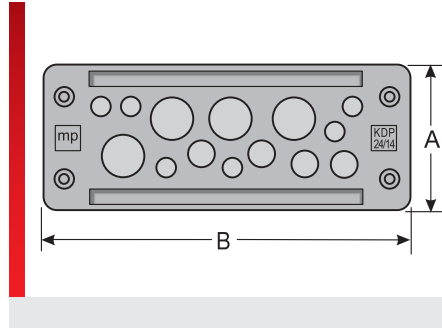
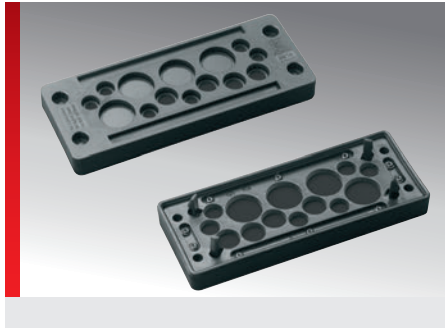
- Approved for railway technology (EN 45545-2:2013)

SPECIFICATIONS

	-22.00 – 212.00 °F	
	TPE	
	VO	
		

Type	Part number	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	12.00
KDT/X-EN 03	87141312	black	0.12 – 0.16	• / -	1	12.00
KDT/X-EN 04	87141314	black	0.16 – 0.20	• / -	1	12.00
KDT/X-EN 05	87141316	black	0.20 – 0.24	• / -	1	12.00
KDT/X-EN 06	87141318	black	0.24 – 0.28	• / -	1	12.00
KDT/X-EN 07	87141320	black	0.28 – 0.31	• / -	1	12.00
KDT/X-EN 08	87141322	black	0.31 – 0.35	• / -	1	12.00
KDT/X-EN 09	87141324	black	0.35 – 0.39	• / -	1	12.00
KDT/X-EN 10	87141326	black	0.39 – 0.43	• / -	1	12.00
KDT/X-EN 11	87141328	black	0.43 – 0.47	• / -	1	12.00
BTK/X-EN (dummy grommet)	87141370	black		• / -		12.00
Grommet, large						
KDT/X-EN 12	87141330	black	0.47 – 0.51	- / •	1	4.00
KDT/X-EN 13	87141332	black	0.51 – 0.55	- / •	1	4.00
KDT/X-EN 14	87141334	black	0.55 – 0.59	- / •	1	4.00
KDT/X-EN 15	87141336	black	0.59 – 0.63	- / •	1	4.00
KDT/X-EN 16	87141338	black	0.63 – 0.67	- / •	1	4.00
KDT/X-EN 17	87141340	black	0.67 – 0.71	- / •	1	4.00
KDT/X-EN 18	87141342	black	0.71 – 0.75	- / •	1	4.00
KDT/X-EN 19	87141344	black	0.75 – 0.79	- / •	1	4.00
KDT/X-EN 20	87141346	black	0.79 – 0.83	- / •	1	4.00
KDT/X-EN 21	87141348	black	0.83 – 0.87	- / •	1	4.00

Cable entry plate plastic, type KDP/EN



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:

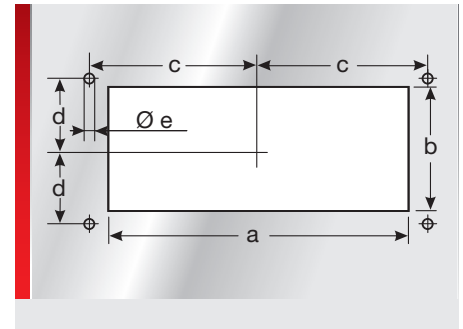
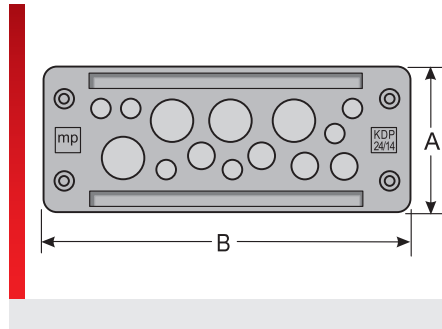
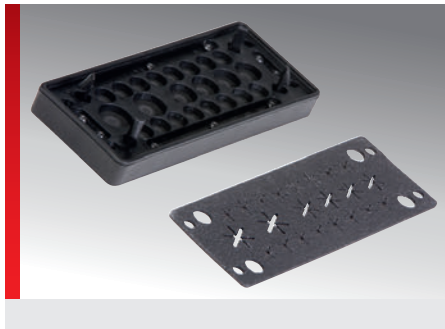
- Enormous time savings in assembly
- High packing density
- Standardized cut-out dimensions
- Option of labeling
- Protection category IP 65
- Approved for railway technology (EN 45545-2:2013)

SPECIFICATIONS

	-22.00 – 158.00 °F
	Enclosure: Polyamide 6 Seal: EPDM
	V0
	IP 65

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.					
KDP/EN 24/11	87301210	black	11	4x 0.12 – 0.26	1.00					
				4x 0.2 – 0.36						
				3x 0.55 – 0.79						
KDP/EN 24/12	87301220	black	12	12x 0.31 – 0.47	1.00					
				KDP/EN 24/13		87301230	black	13	2x 0.12 – 0.22	1.00
									6x 0.16 – 0.32	
KDP/EN 24/14	87301240	black	14	4x 0.35 – 0.55	1.00					
				1x 0.55 – 0.79						
				6x 0.12 – 0.26						
KDP/EN 24/17	87301250	black	17	4x 0.2 – 9.2	1.00					
				4x 0.38 – 0.63						
				17x 0.2 – 0.36						
KDP/EN 24/17-1	87301251	black	17	11x 0.12 – 0.26	1.00					
				1x 0.16 – 0.32						
				5x 0.31 – 0.49						
KDP/EN 24/22	87301260	black	22	16x 0.12 – 0.26	1.00					
				4x 0.2 – 0.36						
				2x 0.31 – 0.49						
KDP/EN 24/23	87301270	black	23	23x 0.16 – 0.32	1.00					
KDP/EN 24/29	87301280	black	29	29x 0.12 – 0.26	1.00					
KDP/EN 24/80	87301290	black	80	78x 0.06 – 0.1	1.00					
				2x 0.1 – 0.2						

Cable entry plate plastic, type KDP/EN-RA



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 45545-2:2013)

SPECIFICATIONS

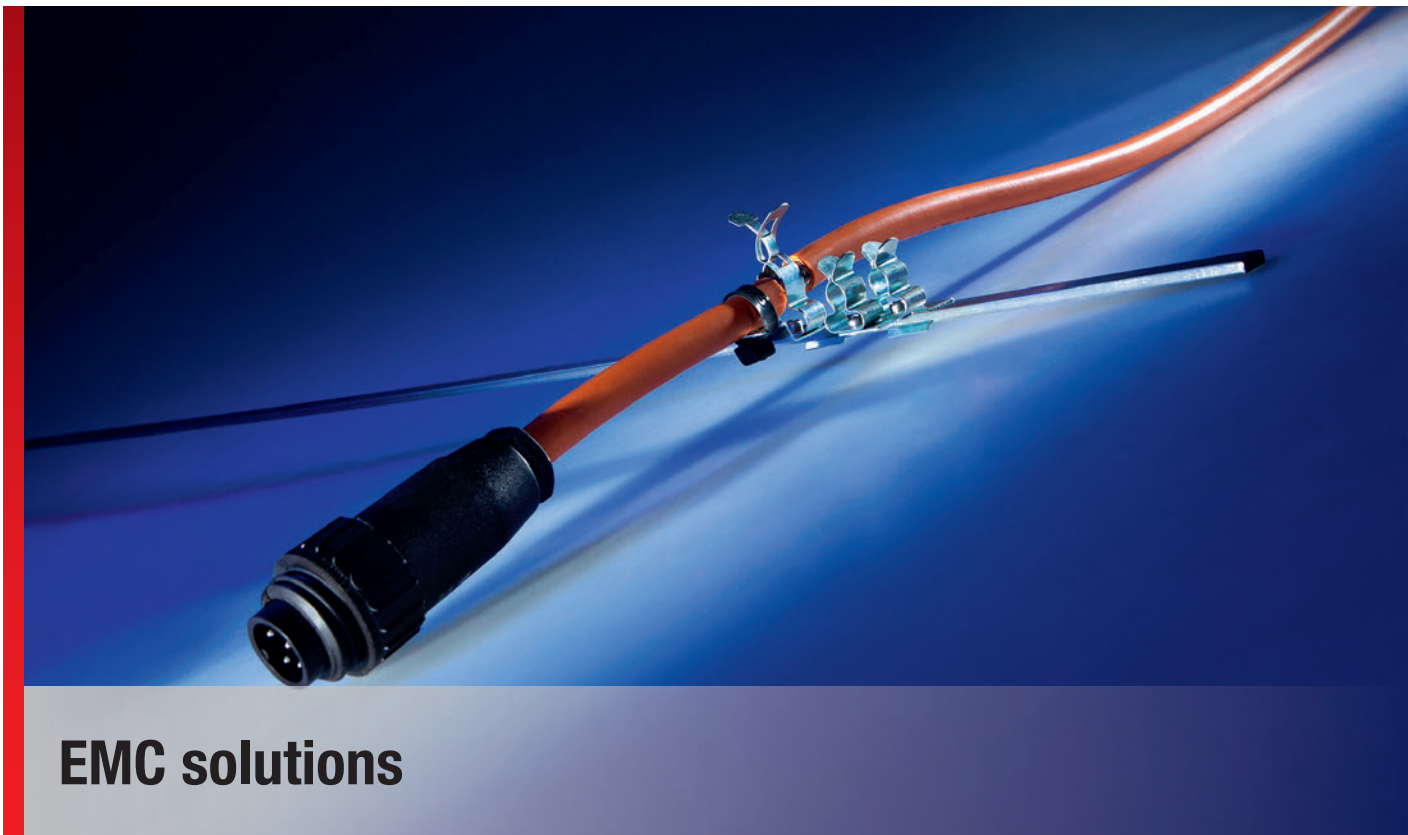
	-22.00 – 158.00 °F
	Enclosure: Polyamide 6 Seal: EPDM
	V0
	IP 65

Type	Part number	Color	No. Openings	Openings Quantity / Ø inch	Pack qty.					
KDP/EN-RA 24/11	87301215	black	11	4x 0.12 – 0.26	1.00					
				4x 0.2 – 0.36						
				3x 0.55 – 0.79						
KDP/EN-RA 24/12	87301225	black	12	12x 0.31 – 0.47	1.00					
				KDP/EN-RA 24/13		87301235	black	13	2x 0.12 – 0.22	1.00
									6x 0.16 – 0.32	
KDP/EN-RA 24/14	87301245	black	14	4x 0.35 – 0.55	1.00					
				1x 0.55 – 0.79						
				6x 0.12 – 0.26						
KDP/EN-RA 24/17	87301255	black	17	4x 0.2 – 0.36	1.00					
				17x 0.2 – 0.36						
				KDP/EN-RA 24/17-1		87301256	black	17	11x 0.12 – 0.26	1.00
1x 0.16 – 0.32										
5x 0.31 – 0.49										
KDP/EN-RA 24/22	87301265	black	22	16x 0.12 – 0.26	1.00					
				4x 0.2 – 9.2						
				2x 0.31 – 0.49						
KDP/EN-RA 24/23	87301275	black	23	23x 0.16 – 0.32	1.00					
KDP/EN-RA 24/29	87301285	black	29	29x 0.12 – 0.26	1.00					
KDP/EN-RA 24/80	87301295	black	80	78x 0.06 – 0.1	1.00					
				2x 0.1 – 0.2						

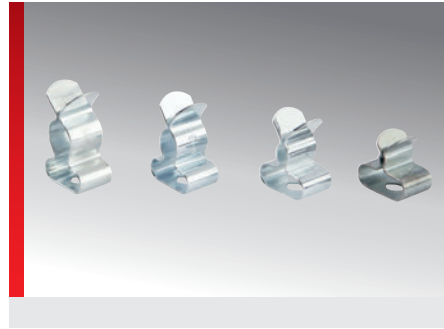
Cable entry plate plastic, type KDP/EN-RA (Continued...)

Dimension table

Type	Part number	Installation height inch	A inch	B inch	a inch	b inch	c inch	d inch	e inch
KDP/EN-RA 24/11	87301215	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/12	87301225	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/13	87301235	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/14	87301245	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/17	87301255	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/17-1	87301256	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/22	87301265	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/23	87301275	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/29	87301285	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22
KDP/EN-RA 24/80	87301295	0.59	2.32	5.79	4.41	1.42	2.56	0.63	0.22



Shield clips, type SC-EMV / MSC-EMV



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.

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

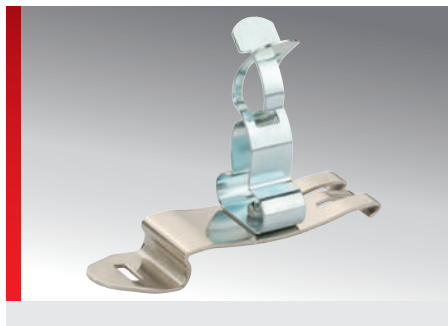
SPECIFICATIONS



Zinc-plated spring steel

Type	Part number	For sheath of Ø inch	Pack qty.
SC-EMV 1.5 - 3	87601002	0.06 – 0.12	25.00
SC-EMV 3 - 6	87601004	0.12 – 0.24	25.00
SC-EMV 6 - 8	87601006	0.24 – 0.31	25.00
SC-EMV 8 - 11	87601008	0.31 – 0.43	25.00
SC-EMV 11 - 16	87601010	0.43 – 0.63	25.00
SC-EMV 17 - 22	87601012	0.67 – 0.87	25.00
SC-EMV 23 - 29	87601014	0.91 – 1.14	25.00
MSC-EMV 3 - 12	87601020	0.12 – 0.47	25.00
MSC-EMV 7 - 18	87601022	0.28 – 0.71	25.00

Shield clips with snap-on clip, type SCF-EMV / MSCF-EMV



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.

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

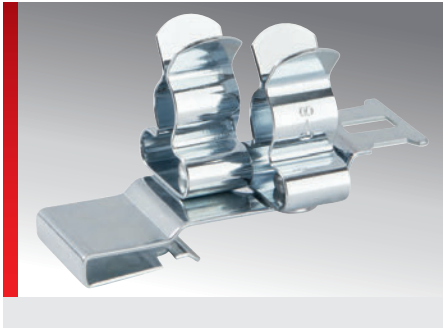
SPECIFICATIONS



Zinc-plated spring steel

Type	Part number	For sheath of Ø inch	Pack qty.
SCF-EMV 1.5 - 3	87601052	0.06 – 0.12	10.00
SCF-EMV 3-6	87601054	0.12 – 0.24	10.00
SCF-EMV 6-8	87601056	0.24 – 0.31	10.00
SCF-EMV 8-11	87601058	0.31 – 0.43	10.00
SCF-EMV 11-16	87601060	0.43 – 0.63	10.00
SCF-EMV 17-22	87601062	0.67 – 0.87	10.00
SCF-EMV 23-29	87601064	0.91 – 1.14	10.00
SCF-EMV 30-37	87601066	1.18 – 1.46	10.00
MSCF-EMV 3 - 12	87601070	0.12 – 0.47	10.00
MSCF-EMV 7 - 18	87601072	0.28 – 0.71	10.00

Type DCS-EMV / DCSZ-EMV double-clip for busbar



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.

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

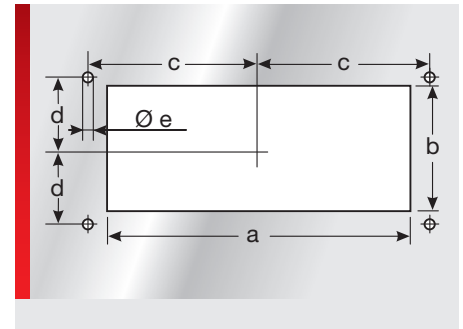
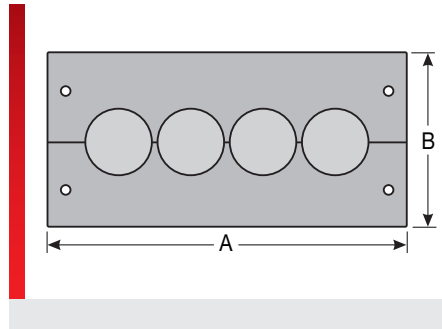
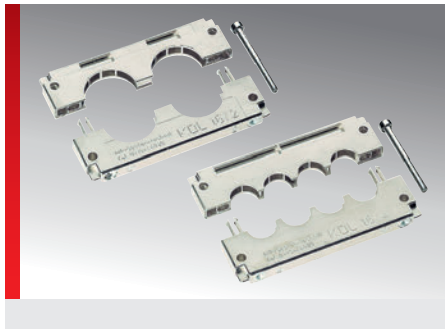
SPECIFICATIONS



Zinc-plated spring steel

Type	Part number	For sheath of Ø inch	Pack qty.
DCS-EMV 1.5 - 3	87601034	0.06 – 0.12	10.00
DCS-EMV 3 - 6	87601036	0.12 – 0.24	10.00
DCS-EMV 6 - 8	87601038	0.24 – 0.31	10.00
DCSZ-EMV 1.5 - 3	87601035	0.06 – 0.12	10.00
DCSZ-EMV 3 - 6	87601037	0.12 – 0.24	10.00
DCSZ-EMV 6 - 8	87601039	0.24 – 0.31	10.00

cable entry system type KDL xx/xx-EMV



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 – 176.00 °F
- Conductive coating on Polyamide 6.6
- V0

Type	Part number	Color	No. Openings small / large	Pack qty.
For standard cut-out size 16				
KDL 16/2-EMV ¹⁾	87171020	Chrome	0 / 2	1.00
KDL 16/4-EMV ¹⁾	87171022	Chrome	4 / 0	1.00
For standard cut-out size 24				
KDL 24/3-EMV ²⁾	87171024	Chrome	1 / 2	1.00
KDL 24/5-EMV ²⁾	87171026	Chrome	5 / 0	1.00
Enlarged cut-out for up to 15 pre-assembled cables				
KDL 2/10-EMV ³⁾	87171027	Chrome	10 / 0	1.00
KDL 3/15-EMV	87980021	Chrome	15 / 0	1.00

¹⁾ Replacement seal KDL16-EMV 8717102100

²⁾ Replacement seal KDL 24-EMV 8717102500

³⁾ Replacement seal KDL 2/10-EMV 87980020

Dimension table

Type	Part number	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







Cable entry grommets, type KDT/Z-EMV



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 – 176.00 °F	
	With conductive textile tape Thermoplastic rubber	
	HB	
		

Type	Part number	Color	For sheath of Ø inch	For opening small / large	No. Openings	Pack qty.
Grommet, small						
KDT/Z-EMV 03	87171812	black	0.12 – 0.16	• / -	1	10.00
KDT/Z-EMV 04	87171814	black	0.16 – 0.2	• / -	1	10.00
KDT/Z-EMV 05	87171816	black	0.2 – 0.24	• / -	1	10.00
KDT/Z-EMV 06	87171818	black	0.24 – 0.28	• / -	1	10.00
KDT/Z-EMV 07	87171820	black	0.28 – 0.31	• / -	1	10.00
KDT/Z-EMV 08	87171822	black	0.31 – 0.35	• / -	1	10.00
KDT/Z-EMV 09	87171824	black	0.35 – 0.39	• / -	1	10.00
KDT/Z-EMV 10	87171826	black	0.39 – 0.43	• / -	1	10.00
KDT/Z-EMV 11	87171828	black	0.43 – 0.47	• / -	1	10.00
KDT/Z-EMV 12	87171830	black	0.47 – 0.51	• / -	1	10.00
KDT/Z-EMV 13	87171832	black	0.51 – 0.55	• / -	1	10.00
KDT/Z-EMV 14	87171834	black	0.55 – 0.59	• / -	1	10.00
KDT/Z-EMV 15	87171836	black	0.59 – 0.63	• / -	1	10.00
Grommet, large						
KDT/Z-EMV 16	87172012	black	0.63 – 0.67	- / •	1	10.00
KDT/Z-EMV 17	87172014	black	0.67 – 0.71	- / •	1	10.00
KDT/Z-EMV 18	87172016	black	0.71 – 0.75	- / •	1	10.00
KDT/Z-EMV 19	87172018	black	0.75 – 0.79	- / •	1	10.00
KDT/Z-EMV 20	87172020	black	0.79 – 0.83	- / •	1	10.00
KDT/Z-EMV 21	87172022	black	0.83 – 0.87	- / •	1	10.00
KDT/Z-EMV 22	87172024	black	0.87 – 0.91	- / •	1	10.00
KDT/Z-EMV 23	87172026	black	0.91 – 0.94	- / •	1	10.00

Cable entry plate, type KDP/N-EMV-Module



PRODUCT INFORMATION

The Murrplastik KDP/N 24 EMV module is designed to dissipate line and field induced interference. The KDP/N 24-EMV modules are used in conjunction with cable entry plates of type KDP/xx 24. In order to ensure optimum performance, the EMC module is assembled in combination with the KDP/N 24 cable entry plate. While the EMC module makes direct contact with the enclosure wall on the inside of

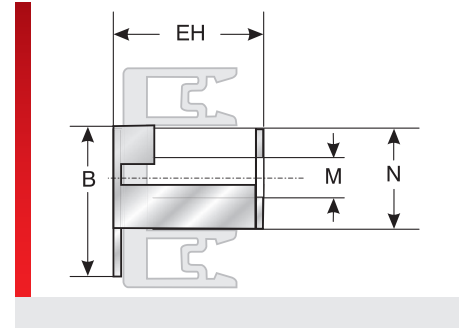
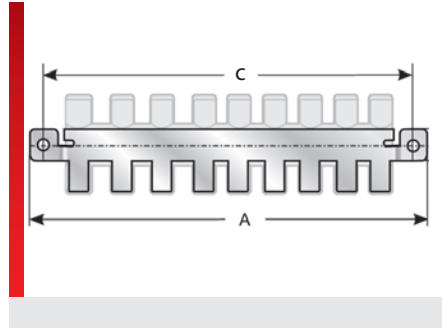
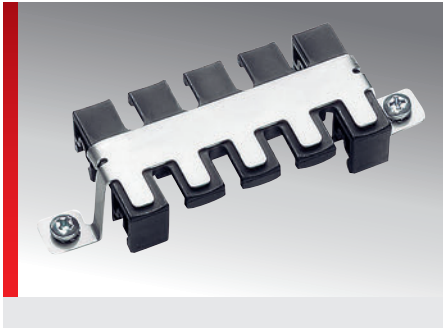
the enclosure, the KDP/xx 24 cable entry plate provides mechanical protection against dust and liquids from the environment.

KDP/N 24 Module Features:

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

Type	Part number	Suitable for	Pack qty.
KDP/N 24/11 EMV module	87664010	KDP/xx 24/11	1.00
KDP/N 24/12 EMV module	87664020	KDP/xx 24/12	1.00
KDP/N 24/13 EMV module	87664030	KDP/xx 24/13	1.00
KDP/N 24/14 EMV module	87664040	KDP/xx 24/14	1.00
KDP/N 24/17 EMV module	87664050	KDP/xx 24/17	1.00
KDP/N 24/17-1 EMV module	87664051	KDP/xx 24/17-1	1.00
KDP/N 24/22 EMV module	87664060	KDP/xx 24/22	1.00
KDP/N 24/23 EMV module	87664070	KDP/xx 24/23	1.00
KDP/N 24/29 EMV module	87664080	KDP/xx 24/29	1.00

Cable fixing plate, type KAF/K



PRODUCT INFORMATION

The cable fixing plate KAF/K-EMV consists of a plastic carrier with a fitted V2A 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.

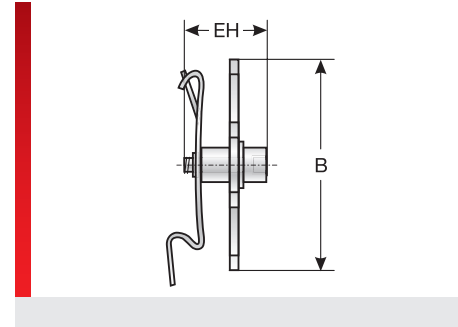
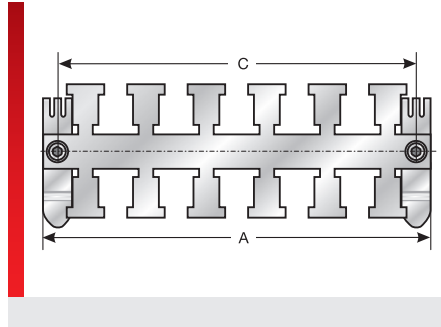
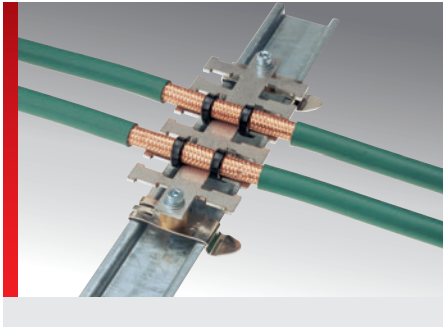
- Approved for railway technology (EN 45545-2:2013)

SPECIFICATIONS

- 40.00 – 257.00 °F
transient 284.00 °F
- Plate: Polyamide 6.6
Discharge plate: V2A
- V0

Type	Part number	Installation height (EH) inch	A inch	B inch	c inch	d inch	Pack qty.
KAF/K-75-EMV	87201414	1.05	4.29	0.91	3.80	0.18	1.00
KAF/K-140-EMV	87201418	1.05	6.81	0.91	6.18	0.18	1.00

Cable fixing plate, type KAF/SF



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 (1.38 in) 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.

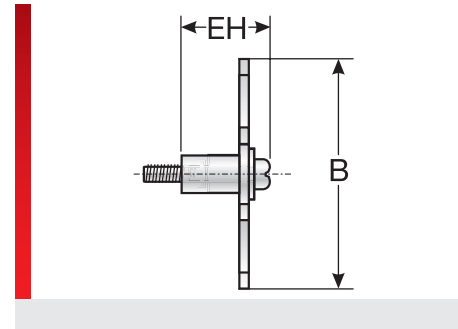
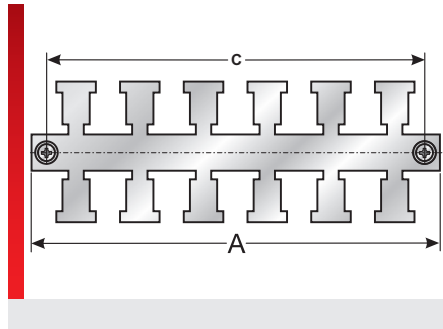
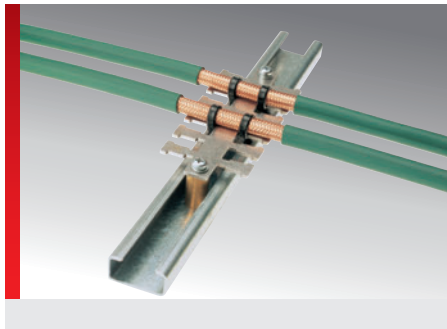
- Fits on a 35 mm (1.38 in) top-hat rail (EN50022)
- Simply snap on

SPECIFICATIONS

Plate: V2A

Type	Part number	Installation height (EH) inch	A inch	B inch	c inch	Pack qty.
KAF/SF-50 EMV	87201240	0.79	1.97	1.93	1.48	1.00
KAF/SF-83 EMV	87201242	0.79	3.27	1.93	2.80	1.00
KAF/SF-116 EMV	87201244	0.79	4.57	1.93	4.06	1.00
KAF/SF-180 EMV	87201248	0.79	7.28	1.93	6.73	1.00

Cable fixing plate, type KAF/DC



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.

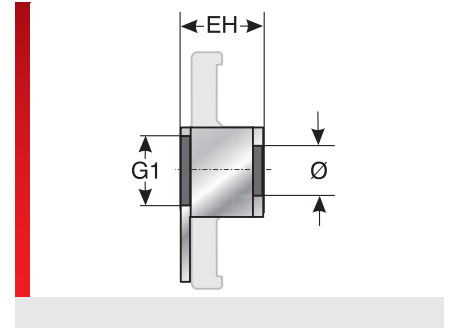
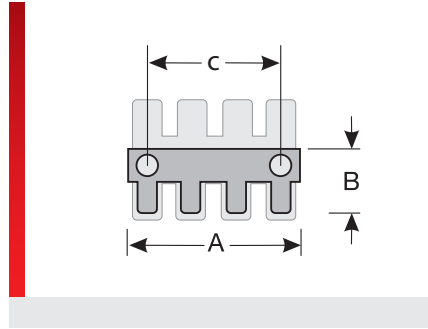
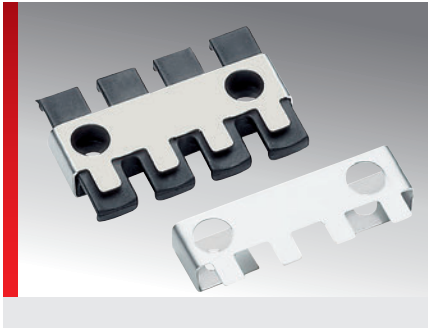
The use of two connecting points ensures a good discharge regardless of the position of the cable on the KAF.

SPECIFICATIONS

Plate: V2A
 Stand: Brass

Type	Part number	Installation height (EH) inch	A inch	B inch	c inch	Pack qty.
KAF/DC-50 EMV	87201250	1.04	1.97	1.93	1.48	1.00
KAF/DC-83 EMV	87201252	1.04	3.27	1.93	2.76	1.00
KAF/DC-116 EMV	87201254	1.04	4.57	1.93	4.06	1.00
KAF/DC-180 EMV	87201258	1.04	7.09	1.93	6.69	1.00

Strain relief, type ZL xx-AB



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	Part number	Installation height (EH) 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	1.00
ZL 60-AB/EMV ¹⁾	87701036	0.47	2.46	0.98	1.71	0.26	1.00
ZL 87-AB/EMV ¹⁾	87701040	0.47	3.50	0.98	2.68	0.26	1.00
ZL 140-AB/EMV ¹⁾	87701046	0.47	5.61	0.98	4.76	0.26	1.00

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

Discharge plate, type KDL/N-AB



PRODUCT INFORMATION

The KDL/E discharge plates are suited for discharging interference which may occur on cable sheaths.

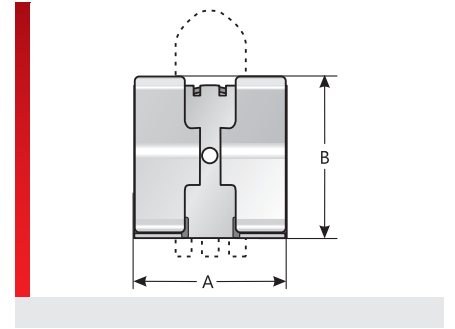
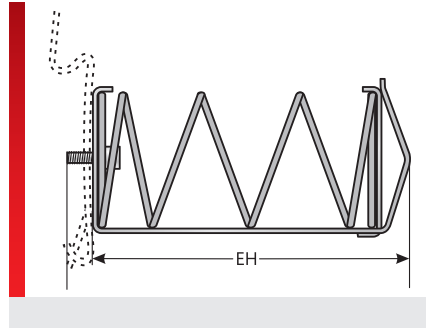
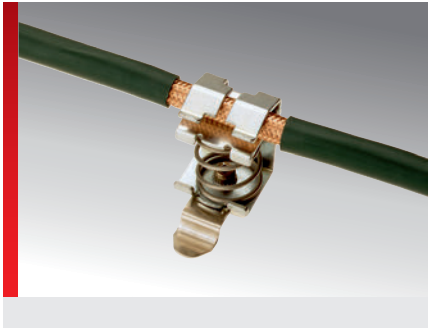
The discharge plate is installed on the inside of the control cabinet, directly to the fixing points of the KDL/E cable entry system.

SPECIFICATIONS

	Stainless steel 1.4310
	RoHS

Type	Part number	No. Discharges	Suitable for	Pack qty.
KDL/N-AB 16/5-EMV OT	87252420	3.00	KDL/E 16/5 upper part	1.00
KDL/N-AB 16/5-EMV UT	87252422	2.00	KDL/E 16/5 lower part	1.00
KDL/N-AB 16/8-EMV	87252424	4.00	KDL/E 16/8 upper and lower part	1.00
KDL/N-AB 24/4-EMV OT	87252426	3.00	KDL/E 24/4 upper part	1.00
KDL/N-AB 24/4-EMV UT	87252428	1.00	KDL/E 24/4 lower part	1.00
KDL/N-AB 24/7-EMV OT	87252430	4.00	KDL/E 24/7 upper part	1.00
KDL/N-AB 24/7-EMV UT	87252432	3.00	KDL/E 24/7 lower part	1.00
KDL/N-AB 24/10-EMV OT	87252434	5.00	KDL/E 24/10 upper part	1.00
KDL/N-AB 24/10-EMV UT	87252436	5.00	KDL/E 24/10 lower part	1.00

Shielding clamp, type SK



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 35 mm (1.38 in) top-hat rail (EN 50022) by means of a mounting foot.

SK mounting foot not included in delivery. Please order separately.

SPECIFICATIONS

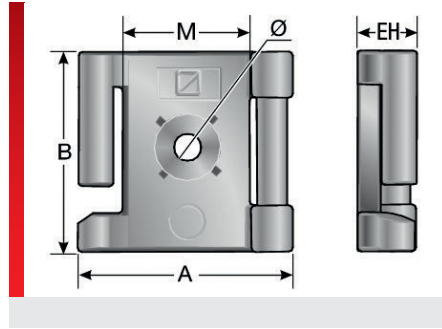
- Galvanized sheet steel
- RoHS

Type	Part number	Fastening	For sheath 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	10.00
SK 4 – 13.5	87201062	M4x0,7	0.16 – 0.53	0.79	0.79	1.28	10.00
SK 10 – 20	87201064	M4x0,7	0.39 – 0.79	1.02	0.98	1.57	10.00
SK 15 – 32	87201066	M4x0,7	0.59 – 1.26	1.28	1.32	2.52	10.00
SK mounting foot	87201070			0.51	1.97		10.00



Strain relief / cable fixing plate

Strain relief, type ZL-fix



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 10 mm (0.39 in) groove width (integrated nut strap).

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

SPECIFICATIONS

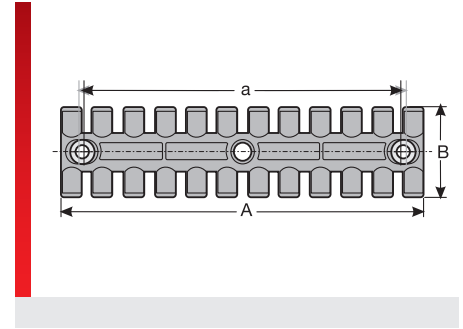
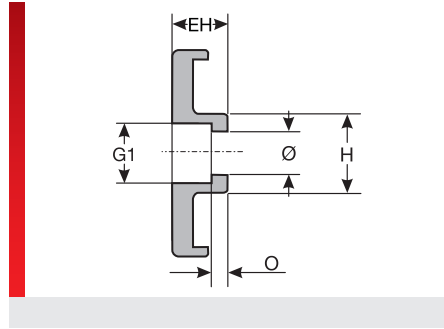
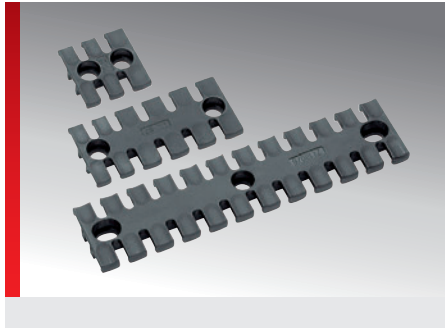
	-22.00 – 176.00 °F
	Tape: Coated polyamide Base: Polyamide 6.6

Type	Part number	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	10.00
ZL-fix P-25	87705020	black	6.73	0.39 – 0.43	10.00
ZL-fix P8-25	87705030	black	6.69	0.31 – 0.35	10.00
ZL-fix P-35	87705022	black	6.73	0.39 – 0.43	10.00
Screw assembly					
ZL-fix W-15	87705008	black	3.62		10.00
ZL-fix W-25	87705010	black	6.73		10.00
ZL-fix W-25-400	87705015	black	15.75		10.00
ZL-fix W-35	87705012	black	6.73		10.00

Dimension table

Type	Part number	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

Strain relief, type ZL



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 45545-2:2013)

SPECIFICATIONS

- 40.00 – 257.00 °F
- Plate: Polyamide 6.6
- V0

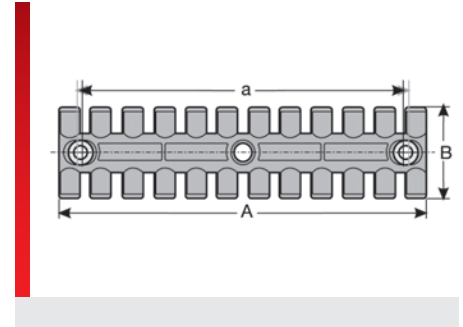
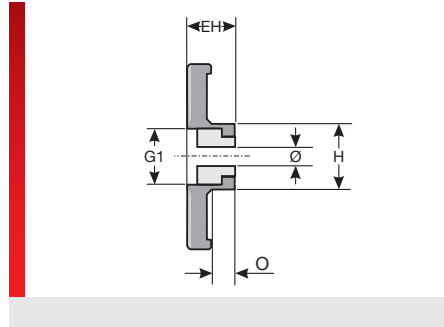
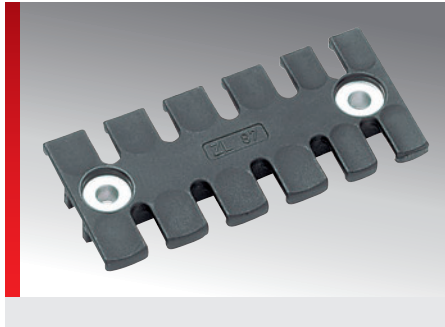
RoHS
 EU
 Made in Germany

Type	Part number	Color	No. Cables	Pack qty.
ZL 04	87701010	black	12.00	1.00
ZL 05	87701012	black	15.00	1.00
ZL 39	87701014	black	3.00	1.00
ZL 60	87701016	black	4.00	1.00
ZL 70	87701017	black	5.00	1.00
ZL 80	87701015	black	6.00	1.00
ZL 87/68	87701018	black	6.00	1.00
ZL 87/50	87701019	black	6.00	1.00
ZL 103	87701020	black	7.00	1.00
ZL 121	87701022	black	8.00	1.00
ZL 140	87701024	black	9.00	1.00
ZL 180/6	87701026	black	12.00	1.00
ZL 180/8	87701027	black	12.00	1.00

Dimension table

Type	Part number	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

Strain relief, type ZL-AH



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 45545-2:2013)

SPECIFICATIONS

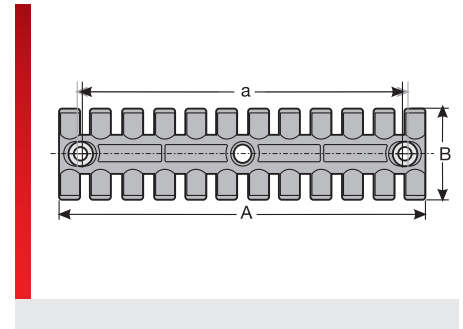
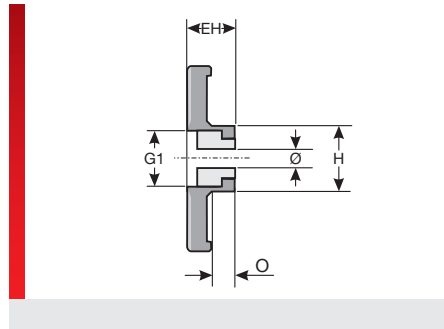
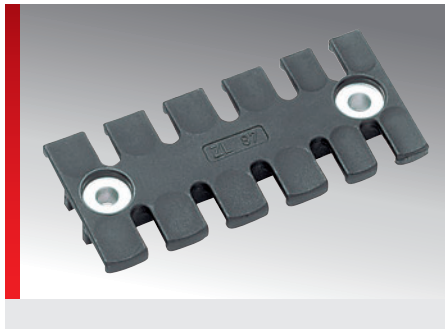
- 40.00 – 257.00 °F
- Plate: Polyamide 6.6
Insert bushing: Aluminum
- V0

Type	Part number	Color	No. Cables	Pack qty.
With aluminum grommets, assembly with M5 screws				
ZL-AH 39	87701230	black	3.00	1.00
ZL-AH 60	87701232	black	4.00	1.00
ZL-AH 87	87701234	black	6.00	1.00
ZL-AH 103	87701236	black	7.00	1.00
ZL-AH 121	87701238	black	8.00	1.00
ZL-AH 140	87701240	black	9.00	1.00
ZL-AH 180	87701242	black	12.00	1.00

Dimension table

Type	Part number	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

Strain relief, type ZL-MH



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 45545-2:2013)

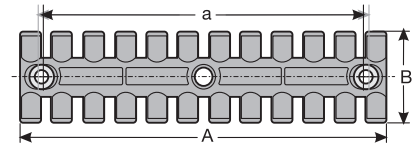
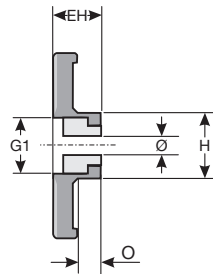
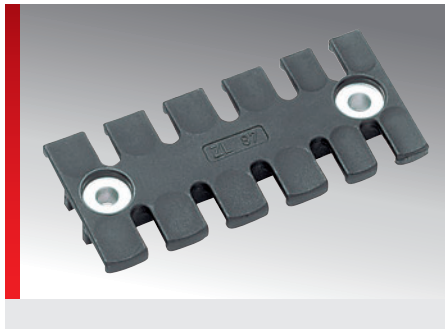
SPECIFICATIONS

- 40.00 – 257.00 °F
- Plate: Polyamide 6.6
Insert bushing: Brass
- V0



Type	Part number	Color	No. Cables	Pack qty.
With brass grommets, assembly with M5 screws				
ZL-MH 39	87701210	black	3.00	1.00
ZL-MH 60	87701212	black	4.00	1.00
ZL-MH 87	87701214	black	6.00	1.00
ZL-MH 103	87701216	black	7.00	1.00
ZL-MH 121	87701218	black	8.00	1.00
ZL-MH 140	87701220	black	9.00	1.00
ZL-MH 180	87701222	black	12.00	1.00
with brass grommets, assembly with M6 screws				
ZL-MH 39/6	87701270	black	3.00	1.00
ZL-MH 60/6	87701272	black	4.00	1.00
ZL-MH 70/6	87701274	black	5.00	1.00
ZL-MH 87/6	87701278	black	6.00	1.00
ZL-MH 103/6	87701282	black	7.00	1.00
ZL-MH 121/6	87701284	black	8.00	1.00
ZL-MH 140/6	87701286	black	9.00	1.00
ZL-MH 180/6	87701288	black	12.00	1.00

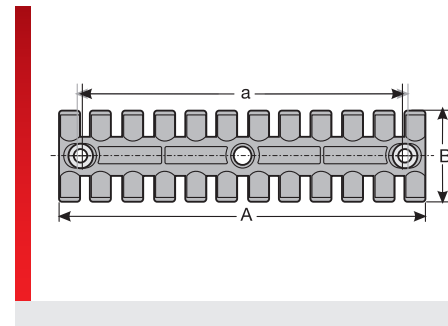
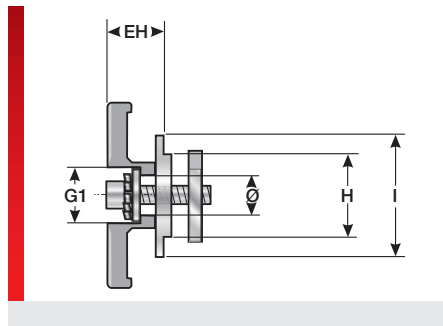
Strain relief, type ZL-MH (Continued...)



Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
With brass grommets, assembly with M5 screws									
ZL-MH 39	87701210	1.52	0.77	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 60	87701212	2.34	1.71	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 87	87701214	3.41	2.68	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 103	87701216	4.04	3.31	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 121	87701218	4.76	4.04	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 140	87701220	5.49	4.76	1.57	0.39	0.47	0.55	0.15	0.22
ZL-MH 180	87701222	7.09	6.18	1.65	0.45	0.47	0.55	0.15	0.22
with brass grommets, assembly with M6 screws									
ZL-MH 39/6	87701270	1.52	0.77	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 60/6	87701272	2.34	1.71	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 70/6	87701274	2.74	1.71	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 87/6	87701278	3.41	2.68	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 103/6	87701282	4.04	3.31	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 121/6	87701284	4.76	4.04	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 140/6	87701286	5.49	4.76	1.57	0.39	0.47	0.55	0.15	0.26
ZL-MH 180/6	87701288	7.09	6.18	1.65	0.45	0.47	0.63	0.15	0.26

Strain relief, type ZL-AM



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 45545-2:2013)

SPECIFICATIONS

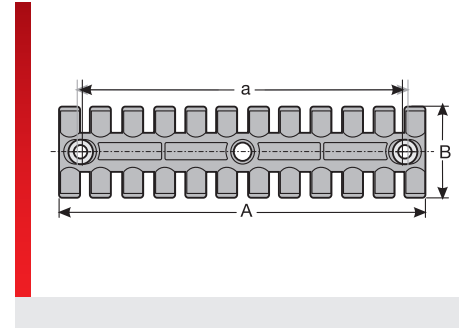
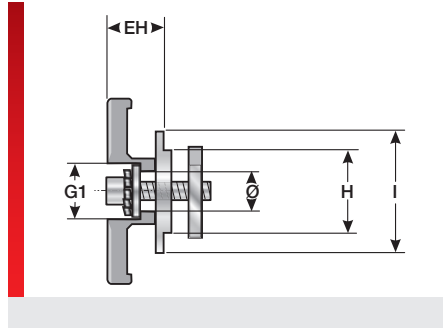
	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

Type	Part number	Color	No. Cables	Pack qty.
For 16 mm (0.63 in) C-rail slot				
Interior width 22–27 mm (0.87 – 1.06 in)				
Brass disc				
Stainless steel screw 1.4301 with UNC thread				
Stainless steel slot nut 1.4301				
ZL-AM 39	87702210	black	3.00	1.00
ZL-AM 60	87702212	black	4.00	1.00
ZL-AM 87	87702214	black	6.00	1.00
ZL-AM 103	87702216	black	7.00	1.00
ZL-AM 121	87702218	black	8.00	1.00
ZL-AM 140	87702220	black	9.00	1.00
ZL-AM 180	87702222	black	12.00	1.00

Dimension table

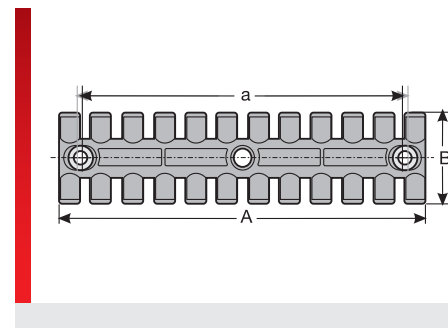
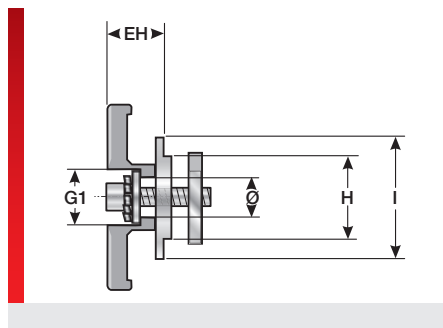
Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 16 mm (0.63 in) C-rail slot									
Interior width 22–27 mm (0.87 – 1.06 in)									
Brass disc									
Stainless steel screw 1.4301 with UNC thread									
Stainless steel slot nut 1.4301									
ZL-AM 39	87702210	1.52	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

Strain relief, type ZL-AM (Continued...)



Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	l inch	Ø inch
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

Strain relief, type ZL-SW



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 45545-2:2013)

SPECIFICATIONS

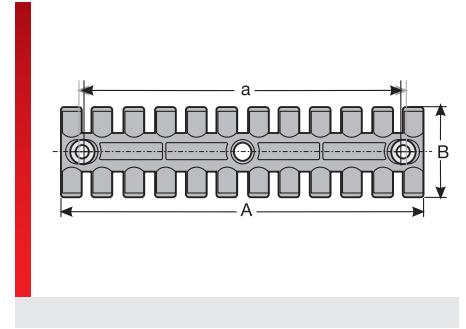
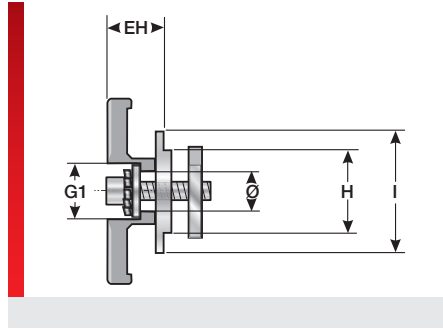
	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

Type	Part number	Color	No. Cables	Pack qty.
For 12 mm (0.47 in) C-rail slot				
Interior width 27 mm (1.06 in)				
Brass disc				
1.4301 stainless steel screw with metric thread				
Stainless steel slot nut 1.4301				
ZL-SW 39	87702410	black	3.00	1.00
ZL-SW 60	87702412	black	4.00	1.00
ZL-SW 87	87702414	black	6.00	1.00
ZL-SW 103	87702416	black	7.00	1.00
ZL-SW 121	87702418	black	8.00	1.00
ZL-SW 140	87702420	black	9.00	1.00
ZL-SW 180/6	87702422	black	12.00	1.00

Dimension table

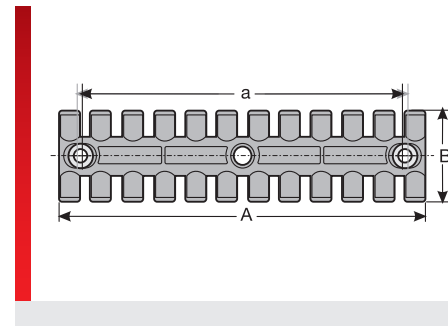
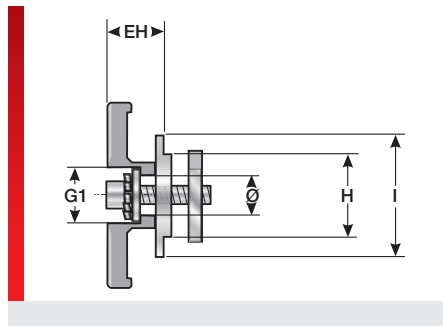
Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 12 mm (0.47 in) C-rail slot									
Interior width 27 mm (1.06 in)									
Brass disc									
1.4301 stainless steel screw with metric thread									
Stainless steel slot nut 1.4301									
ZL-SW 39	87702410	1.52	0.77	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

Strain relief, type ZL-SW (Continued...)



Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	l inch	Ø inch
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

Strain relief, type ZL-C



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 45545-2:2013)

SPECIFICATIONS

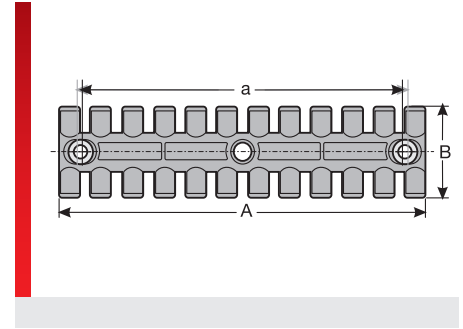
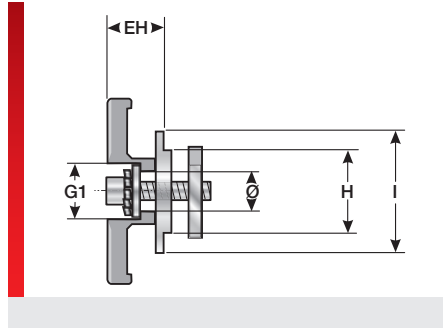
	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

Type	Part number	Color	No. Cables	Pack qty.
For 11 mm (0.43 in) C-rail slot				
Interior width 21 mm (0.83 in)				
Brass disc				
Steel screw with metric thread				
Steel slot nut				
ZL-C 39	87702810	black	3.00	1.00
ZL-C 60	87702812	black	4.00	1.00
ZL-C 80	87702814	black	6.00	1.00
ZL-C 87	87702816	black	6.00	1.00
ZL-C 103	87702818	black	7.00	1.00
ZL-C 121	87702820	black	8.00	1.00
ZL-C 140	87702822	black	9.00	1.00
ZL-C 180/6	87702824	black	12.00	1.00

Dimension table

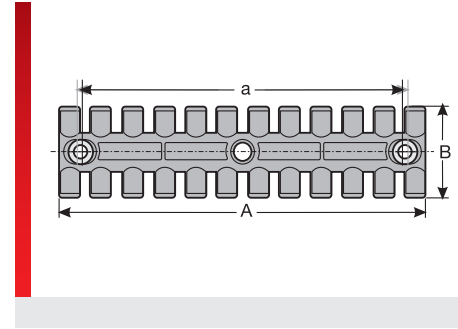
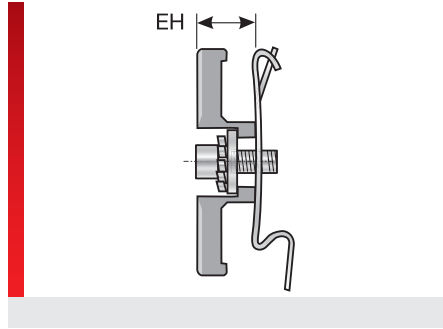
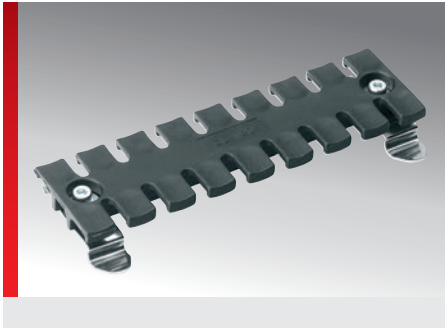
Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 11 mm (0.43 in) C-rail slot									
Interior width 21 mm (0.83 in)									
Brass disc									
Steel screw with metric thread									
Steel slot nut									
ZL-C 39	87702810	1.52	0.77	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 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

Strain relief, type ZL-C (Continued...)



Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	l inch	Ø inch
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 140	87702822	5.49	4.76	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 180/6	87702824	7.09	6.18	1.65	0.53	0.47	0.42	0.71	0.35

Strain relief, type ZL-MF



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 35mm 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 45545-2:2013)

SPECIFICATIONS

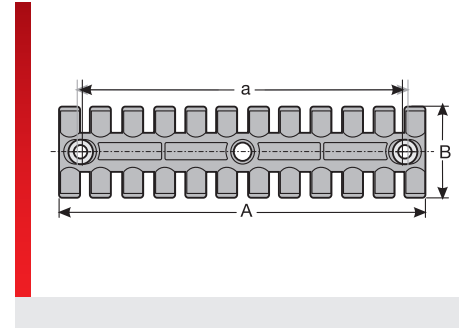
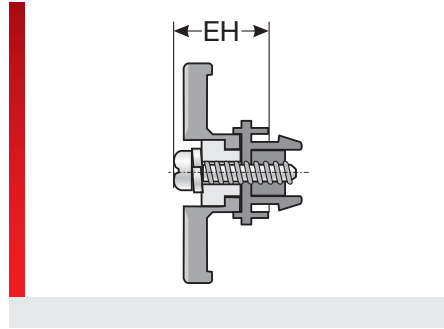
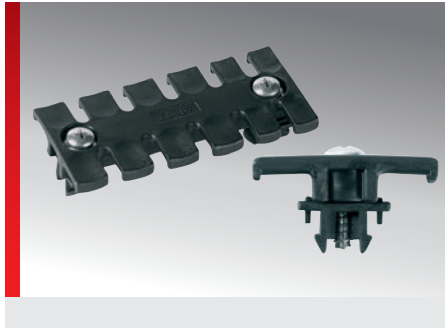
	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

Type	Part number	Color	No. Cables	Pack qty.
ZL-MF 39	87702610	black	3.00	1.00
ZL-MF 70	87702614	black	5.00	1.00
ZL-MF 140	87702622	black	9.00	1.00

Dimension table

Type	Part number	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

Strain relief, type ZLF



PRODUCT INFORMATION

The strain relief plate ZLF is based on the strain relief plate ZL. The fastening clips that are used allow for simply mounting on C-rails with 10 mm (0.39 in) slot and a plate thickness of 2.0 mm (0.08 in) maximum. The pre-mounted screw in the fastening clip allows the snap-on stand to be splayed and locked.

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Approved for railway technology (EN 45545-2:2013)

SPECIFICATIONS

	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

Type	Part number	Color	No. Cables	Pack qty.
ZLF 39	87701410	black	3.00	10.00
ZLF 60	87701412	black	4.00	10.00
ZLF 87	87701414	black	6.00	10.00
ZLF 103	87701416	black	7.00	10.00
ZLF 121	87701418	black	8.00	10.00
ZLF 140	87701420	black	9.00	10.00

Dimension table

Type	Part number	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

Strain relief

Strain relief, type KDZL



PRODUCT INFORMATION

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. Special benefits of the KDZL are:

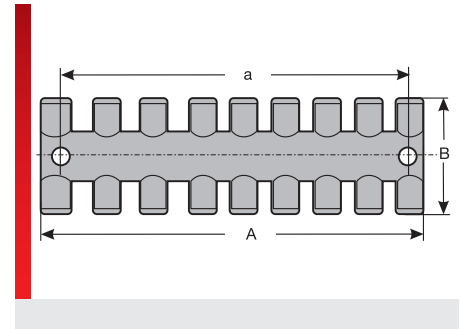
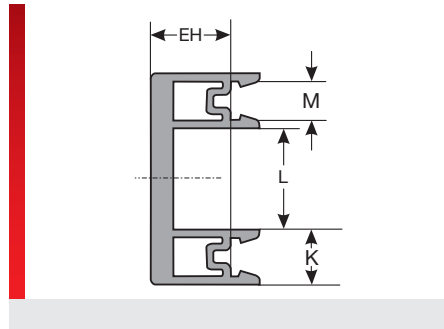
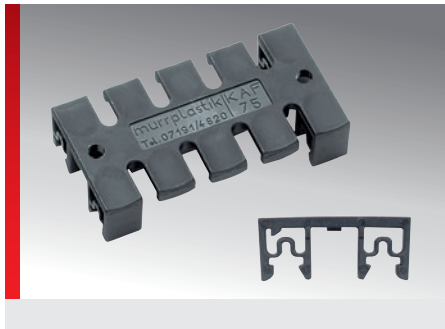
- Enormous time savings in assembly
- High packing density
- Standard cut-out dimensions
- Large wire diameter ranges
- Easy assembly
- High degree of strain relief

SPECIFICATIONS

	-22.00 – 212.00 °F
	TPE
	HB

Type	Part number	Color	Suitable for	Pack qty.
KDZL 24-14, sw	87302210	black	KDP/F 24/14	5.00
KDZL 24-22, sw	87302220	black	KDP/F 24/22	5.00
KDZL 24-28, sw	87302240	black	KDP/F 24/28	5.00
KDZL 24-46, sw	87302250	black	KDP/F 24/46	5.00

Cable fixing plate, type KAF



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 35 mm (1.38 in) 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 45545-2:2013)

SPECIFICATIONS

	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

RoHS

EU

GL

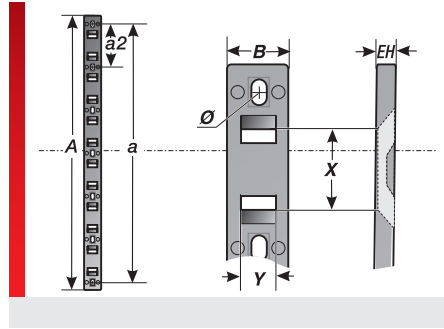
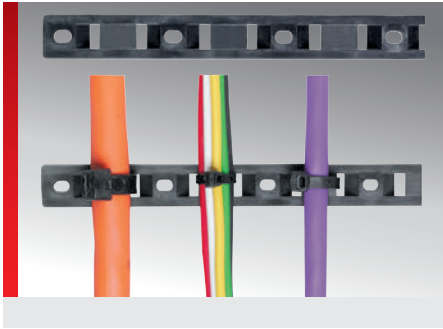
Made in Germany

Type	Part number	Color	No. Cables	Pack qty.
KAF 11	87201010	black	1.00	1.00
KAF 75	87201014	black	5.00	1.00
KAF 140	87201018	black	9.00	1.00

Dimension table

Type	Part number	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

Cable tie rail, type KBL



PRODUCT INFORMATION

Quick and easy fitting of cables.
Cable ties may be pushed on if a rail is already fitted.

SPECIFICATIONS

- 40.00 – 176.00 °F
Transient 302 °F
- Polyamide PA 6
- V0

RoHS

Made in Germany

Type	Part number	Color	No. Cables	Pack qty.
KBL 245 x 15	87702122	black	6.00	100.00
KBL 245 x 15	87702120	black	6.00	1.00

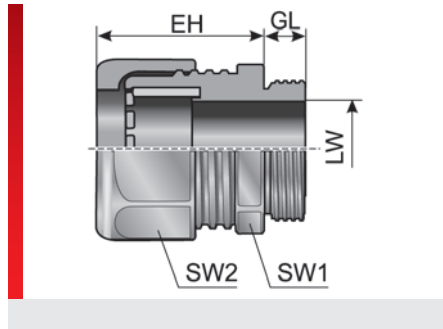
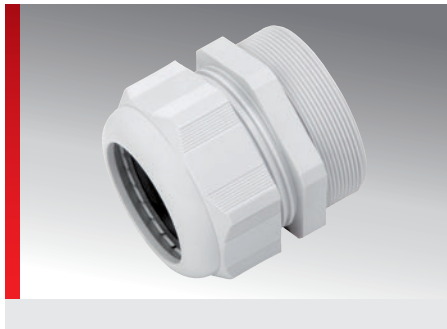
Dimension table

Type	Part number	A inch	B inch	a inch	a2 inch	EH inch	X inch	Y inch	Ø inch
KBL 245 x 15	87702122	9.65	0.61	9.09	1.52	0.20	0.94	0.34	0.16
KBL 245 x 15	87702120	9.65	0.61	9.09	1.52	0.20	0.94	0.34	0.16



m-seal

Type 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:

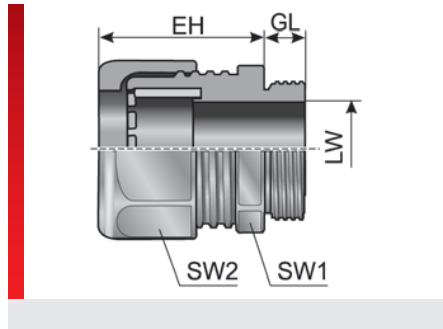
- Large seal and clamping area
- With integrated strain relief
- High protection class IP 68
- Simple, fast assembly without special tools

SPECIFICATIONS

- 40.00 – 176.00 °F
transient 302.00 °F
- UL94 V2 self-extinguishing
- IP 68
- Strain relief according to DIN EN 50262

Type	Part number	Color	Connecting thread	EH inch	GL inch	Clamping range (LW) inch	SW 1 / 2 inch	Pack qty.
Metric plastic thread								
m-seal KV M12x1.5 3.0-6.5	84181250	black	M12x1,5	0.87	0.24	0.12 – 0.26	0.59	100.00
m-seal KV M12x1.5 4.0-8.0	84181252	black	M16x1,5	0.98	0.31	0.16 – 0.31	0.75	50.00
m-seal KV M20x1.5 6.0-12.0	84181254	black	M20x1,5	1.14	0.39	0.24 – 0.47	0.94	50.00
m-seal KV M25x1.5 11.0-17.0	84181256	black	M25x1,5	1.30	0.31	0.43 – 0.67	1.14	50.00
m-seal KV M32x1.5 15.0-21.0	84181258	black	M32x1,5	1.54	0.39	0.59 – 0.83	1.42	25.00
m-seal KV M40x1.5 19.0-28.0	84181260	black	M40x1,5	1.73	0.39	0.75 – 1.1	1.81	20.00
m-seal KV M50x1.5 30.0-38.0	84181262	black	M50x1,5	1.93	0.71	1.18 – 1.5	2.36	10.00
m-seal KV M63x1.5 34.0-44.0	84181264	black	M63x1,5	1.93	0.71	1.34 – 1.73	2.56	10.00
Pg plastic threading								
m-seal KV Pg 7 3.0-6.5	84181050	black	Pg 07	0.87	0.31	0.12 – 0.26	0.59	100.00
m-seal KV Pg 9 4.0-8.0	84181052	black	Pg 09	0.98	0.31	0.16 – 0.31	0.75	50.00
m-seal KV Pg 11 5.0-10.0	84181054	black	Pg 11	1.10	0.31	0.2 – 0.39	0.87	50.00
m-seal KV Pg 13.5 6.0-12.0	84181056	black	Pg 13.5	1.14	0.35	0.24 – 0.47	0.94	50.00
m-seal KV Pg 16 10.0-14.0	84181058	black	Pg 16	1.22	0.39	0.39 – 0.55	1.06	50.00
m-seal KV Pg 21 13.0-18.0	84181060	black	Pg 21	1.38	0.43	0.51 – 0.71	1.3	25.00
m-seal KV Pg 29 18.0-25.0	84181062	black	Pg 29	1.57	0.43	0.71 – 0.98	1.65	20.00
m-seal KV Pg 36 22.0-32.0	84181064	black	Pg 36	1.93	0.51	0.87 – 1.26	2.09	10.00
m-seal KV Pg 42 30.0-38.0	84181066	black	Pg 42	1.93	0.51	1.18 – 1.5	2.36	10.00

Type m-seal® MV (metal version)



PRODUCT INFORMATION

The m-seal cable 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

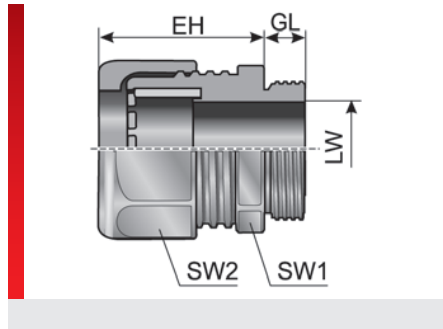
- 40.00 – 212.00 °F
- UL94 V2
- IP 68
- Strain relief according to DIN EN 50262

Type	Part number	Connecting thread	EH inch	GL inch	Clamping range (LW) inch	SW 1 / 2 inch	Pack qty.
Metric metal thread							
m-seal MV M12x1.5 3.0-6.5	84201600	M12x1,5	0.85	0.24	0.12 – 0.26	0.55	50.00
m-seal MV M16x1.5 5.0-10.0	84201602	M16x1,5	1.00	0.28	0.2 – 0.39	0.79	50.00
m-seal MV M20x1.5 6.0-12.0	84201604	M20x1,5	1.00	0.31	0.24 – 0.47	0.87	50.00
m-seal MV M25x1.5 11.0-17.0	84201606	M25x1,5	1.22	0.31	0.43 – 0.67	1.06	25.00
m-seal MV M32x1.5 15.0-21.0	84201608	M32x1,5	1.32	0.31	0.59 – 0.83	1.34	20.00
m-seal MV M40x1.5 19.0-28.0	84201610	M40x1,5	1.65	0.35	0.75 – 1.1	1.69	10.00
m-seal MV M50x1.5 27.0-38.0	84201612	M50x1,5	1.97	0.35	1.06 – 1.5	2.28	5.00
m-seal MV M63x1.5 34.0-44.0	84201614	M63x1,5	2.06	0.55	1.34 – 1.73	2.52 / 2.68	5.00
Pg metal thread							
m-seal MV Pg 7 3.0-6.5	84201000	Pg 07	0.86	0.24	0.12 – 0.26	0.55	50.00
m-seal MV Pg 9 4.0-8.0	84201002	Pg 09	0.89	0.24	0.16 – 0.31	0.67	50.00
m-seal MV Pg 11 5.0-11.0	84201004	Pg 11	1.00	0.24	0.2 – 0.43	0.79	50.00
m-seal MV Pg 13.5 6.0-12.0	84201006	Pg 13.5	0.95	0.26	0.24 – 0.47	0.87	50.00
m-seal MV Pg 16 10.0-14.0	84201008	Pg 16	1.08	0.26	0.39 – 0.55	0.94	25.00
m-seal MV Pg 21 13.0-18.0	84201010	Pg 21	1.23	0.28	0.51 – 0.71	1.18	20.00
m-seal MV Pg 29 18.0-25.0	84201012	Pg 29	1.55	0.31	0.71 – 0.98	1.57	10.00
m-seal MV Pg 36 22.0-32.0	84201014	Pg 36	1.86	0.35	0.87 – 1.26	1.97	5.00
m-seal MV Pg 42 30.0-38.0	84201016	Pg 42	1.88	0.47	1.18 – 1.5	2.28	5.00

Type m-seal® MV (metal version) (Continued...)

Type	Part number	Connecting thread	EH inch	GL inch	Clamping range (LW) inch	SW 1 / 2 inch	Pack qty.
m-seal MV Pg 48 34.0-44.0	84201018	Pg 48	2.05	0.55	1.34 – 1.73	2.52	5.00
Long, metal metric threading							
m-seal MV M12x1.5-L 3.0-6.5	84201400	M12x1,5	0.85	0.47	0.12 – 0.26	0.55	50.00
m-seal MV M16x1.5-L 5.0-10.0	84201402	M16x1,5	1.00	0.47	0.2 – 0.39	0.79	50.00
m-seal MV M20x1.5-L 6.0-12.0	84201404	M20x1,5	1.00	0.47	0.24 – 0.47	0.87	50.00
m-seal MV M25x1.5-L 11.0-17.0	84201406	M25x1,5	1.22	0.47	0.43 – 0.67	1.06	25.00
m-seal MV M32x1.5-L 15.0-21.0	84201408	M32x1,5	1.32	0.59	0.59 – 0.83	1.34	20.00
m-seal MV M40x1.5-L 19.0-28.0	84201410	M40x1,5	1.65	0.59	0.75 – 1.1	1.69	10.00
m-seal MV M50x1.5-L 27.0-38.0	84201412	M50x1,5	1.97	0.59	1.06 – 1.5	2.28	5.00
m-seal MV M63x1.5-L 34.0-44.0	84201414	M63x1,5	2.06	0.59	1.34 – 1.73	2.52 / 2.68	5.00
Long, metal PG threading							
m-seal MV Pg 7-L 3.0-6.5	84201200	Pg 07	0.86	0.39	0.12 – 0.26	0.55	50.00
m-seal MV Pg 9-L 4.0-8.0	84201202	Pg 09	0.89	0.39	0.16 – 0.31	0.67	50.00
m-seal MV Pg 11-L 5.0-11.0	84201204	Pg 11	1.00	0.39	0.2 – 0.43	0.79	50.00
m-seal MV Pg 13.5-L 6.0-12.0	84201206	Pg 13.5	0.95	0.39	0.24 – 0.47	0.87	50.00
m-seal MV Pg 16-L 10.0-14.0	84201208	Pg 16	1.08	0.39	0.39 – 0.55	0.94	25.00
m-seal MV Pg 21-L 13.0-18.0	84201210	Pg 21	1.23	0.47	0.51 – 0.71	1.18	20.00
m-seal MV Pg 29-L 18.0-25.0	84201212	Pg 29	1.55	0.47	0.71 – 0.98	1.57	10.00
m-seal MV Pg 36-L22.0-32.0	84201214	Pg 36	1.86	0.55	0.87 – 1.26	1.97	5.00
m-seal MV Pg 42-L 30.0-38.0	84201216	Pg 42	1.88	0.63	1.18 – 1.5	2.28	5.00
m-seal MV Pg 48-L 34.0-44.0	84201218	Pg 48	2.05	0.71	1.34 – 1.73	2.52	5.00

Type m-seal[®] EMV



PRODUCT INFORMATION

The m-seal EMC cable fitting facilitates simple radial and axial cable movement, even at contact locations, without damaging the conductor, by using contact finger surfaces with rounded edges. The large surfaces on the contact fingers make low contact resistance possible, even on loosely woven cables (the contact area does not press into the conductor).

m-seal cable fittings feature the following advantages:

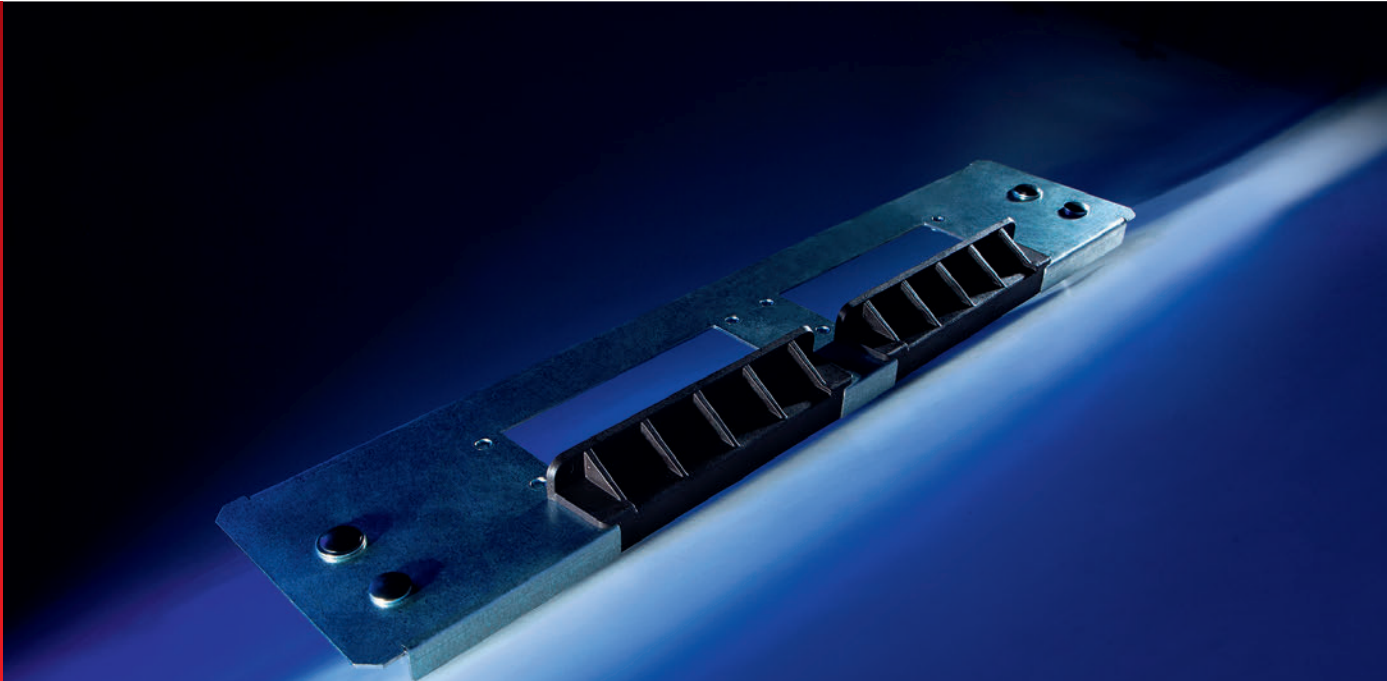
- Large seal and clamping area
- With integrated strain relief
- High protection class IP 68
- High contract rating, even at vibration conditions
- Very simple and rapid assembly without tools
- Suitable for the highest requirements of today's technology
- Very good shielding attenuation

Disassembly of cable fittings is not necessary for installation!

SPECIFICATIONS

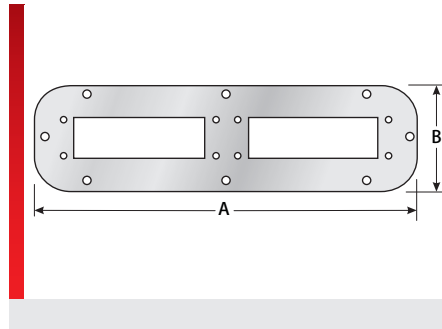
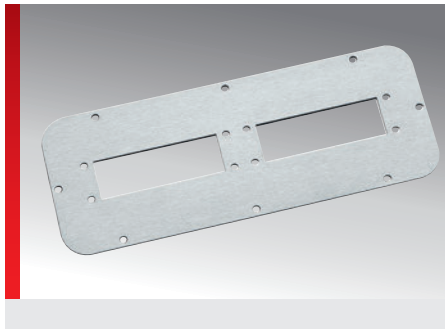
	-22.00 – 212.00 °F transient 356.00 °F
	UL94 V2
	IP 68
	Strain relief according to DIN EN 50262

Type	Part number	Connecting thread	EH inch	GL inch	Clamping range (LW) inch	SW 1 / 2 inch	Pack qty.
Metric metal thread / EMC version							
m-seal EMV M12x1.5 3.0-6.5	84201800	M12x1,5	1.10	0.24	0.12 – 0.26	0.55	50.00
m-seal EMV M16x1.5 5.0-10.0	84201802	M16x1,5	1.34	0.24	0.2 – 0.39	0.79	50.00
m-seal EMV M20x1.5 6.0-12.0	84201804	M20x1,5	1.50	0.24	0.3 – 0.55	0.94	50.00
m-seal EMV M25x1.5 10.0-18.0	84201806	M25x1,5	1.65	0.31	0.39 – 0.71	1.18	25.00
m-seal EMV M32x1.5 16.0-25.0	84201808	M32x1,5	1.97	0.35	0.63 – 0.98	1.57	10.00
m-seal EMV M40x1.5 22.0-32.0	84201810	M40x1,5	2.24	0.35	0.87 – 1.26	1.97	5.00
m-seal EMV M50x1.5 30.0-38.0	84201812	M50x1,5	2.68	0.35	1.18 – 1.5	2.28	5.00
m-seal EMV M63x1.5 34.0-44.0	84201814	M63x1,5	2.72	0.55	1.34 – 1.73	2.52 / 2.68	5.00



Accessories

Adapter plate Rittal



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



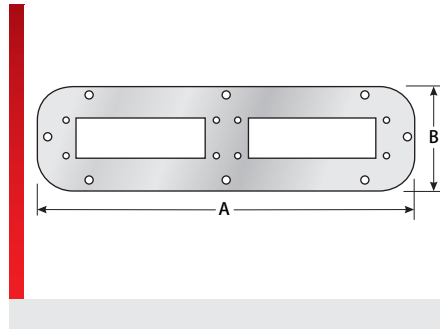
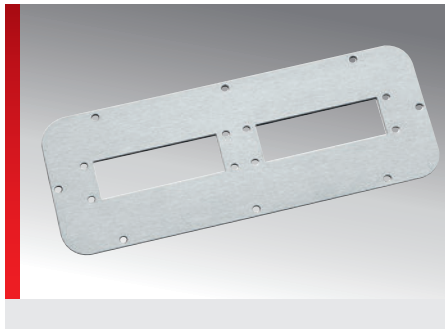
Stainless steel V2A (1.4301)
V4A (1.4571)
Steel (1.1203)



Type	Part number	Color	Location spaces	Rittal Cutting	Plate thickness inch	A inch	B inch	Pack qty.
AP/RI-TS/3x50	87663208	Smoothed	3x M50	TS8	0.08	13.31	6.61	1.00
AP/RI-TS/5x50	87663206	Smoothed	5x M50	TS8	0.08	13.31	6.61	1.00
BP RI-TS/338x168	87663210	Smoothed	blind	TS8	0.08	13.31	6.61	1.00
With 24-pin cut-outs								
KDP AP/RI-TS/3	87663202	Smoothed	3x 24-pole	TS8	0.08	13.31	6.61	1.00
KDP AP/RI-TS/4	87663204	Smoothed	4x 24-pole	TS8	0.08	13.31	6.61	1.00
KDP 24/AP/RI-KL/1	87663073	Smoothed	1x 24-pole	2	0.08	8.70	3.54	1.00
KDP 24/AP/RI-BG/2	87663074	Smoothed	2x 24-pole	BG 1558.510	0.08	13.98	3.62	1.00
KDP 24/AP/RI-AE/2	87663072	Smoothed	2x 24-pole	3	0.08	12.99	3.54	1.00
KDP 24/AP/RI-BG/3+4	87663075	Smoothed	3x 24-pole / 2x M20 / 2x M25	BG 1559.510	0.08	21.85	3.62	1.00
KDP 24/AP/RI-AE/4 ¹⁾	87663070	Smoothed	4x 24-pole	4	0.08	13.35	5.87	1.00
KDP 24/AP/RI-AE/6+2 ¹⁾	87663071	Smoothed	6x 24-pole / 2x M32	5	0.08	21.02	5.87	1.00
With integral M5 threading								
KDP AP/RI-TS/3-M5	87663212	Smoothed	3x 24-pole	TS8	0.08	13.31	6.61	1.00
KDP AP/RI-TS/4-M5	87663214	Smoothed	4x 24-pole	TS8	0.08	13.31	6.61	1.00
For metal KDP								
KDP AP 149/100/2 V4A	87663080	Smoothed	2x KDP 100/xx	4	0.10	13.35	5.87	1.00
KDP AP 149/100/3 V4A	87663082	Smoothed	3x KDP 100/xx	5	0.10	21.02	5.87	1.00
KDP AP 149/105/3 St ²⁾	87663084	RAL 7035	3x KDP 105/xx	5	0.10	21.02	5.87	1.00

¹⁾ 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.

Adapter plate Sarel



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.

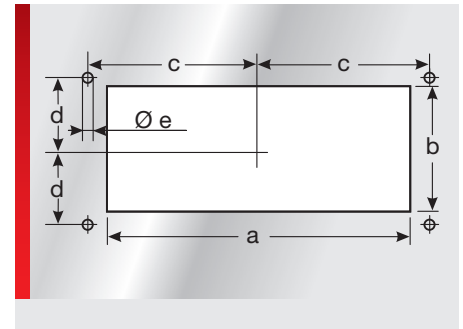
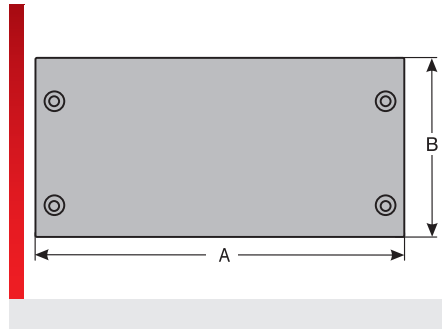
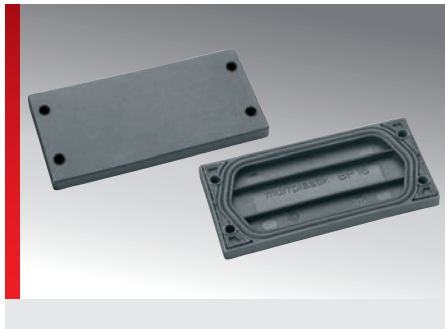
SPECIFICATIONS

Stainless steel 1.4301 (V2A)

RoHS

Type	Part number	Color	Location spaces	Sarel 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	1.00
KDP 24/AP/SA/2+4	87663112	Smoothed	2x 24-pole / 4x M32	515X5	0.08	17.52	5.12	1.00
KDP 24/AP/SA/3+2	87663108	Smoothed	3x 24-pole / 2x M32	515X6	0.08	21.46	5.12	1.00
KDP 24/AP/SA/5+4	87663100	Smoothed	5x 24-pole / 2x M25 / 2x M50	515X7	0.08	19.49	8.66	1.00
For metal KDP								
KDP AP/SA/130/100/2	87663130	Smoothed	2x KDP 100/xx	515X4	0.10	13.58	5.12	1.00
KDP AP/SA/130/100/2+4	87663128	Smoothed	2x KDP 100/xx / 4x M32	515X5	0.10	17.52	5.12	1.00
KDP AP/SA/130/100/3+2	87663126	Smoothed	2x KDP 100/xx / 3x M32	515X6	0.10	21.46	5.12	1.00
For KDP/R								
KDP/R AP/SA-1	87663106	Smoothed	6x M63	515X6	0.08	21.46	5.12	1.00
KDP/R AP/SA-2	87663110	Smoothed	5x M63	515X5	0.08	17.52	5.12	1.00
KDP/R AP/SA-3	87663114	Smoothed	3x M63	515X4	0.08	13.58	5.12	1.00
KDP/R AP/SA-4	87663104	Smoothed	2x M32 / 2x M63	515X3	0.08	9.65	5.12	1.00

Blanking plate (plastic)



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 – 257.00 °F
- BP, BP/N: Polyamide 6.6
BP/H: TPE
- BP, BP/N: V0
BP/H: HB
- BP: IP 54
BP/N: IP 65
BP/H: IP 42

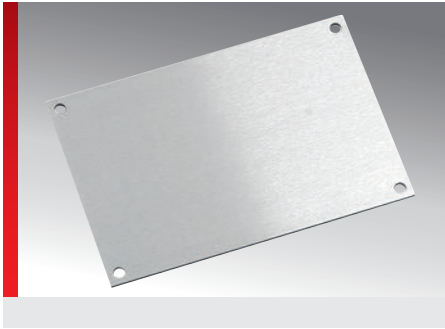


Type	Part number	Color	Pack qty.
Reinforced version			
BP 16	87171620	black	10.00
BP 24	87171622	black	10.00
High design, latchable from plate thickness 1.5–2.0 mm (0.06–0.08 in)			
BP/N 24	87171624	black	1.00
Flexible version			
BP/H 24	87171626	black	1.00

Dimension table

Type	Part number	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 (0.06–0.08 in)									
BP/N 24	87171624	0.61	5.75	2.28	4.41	1.42	2.56	0.63	0.22

Blanking plate (metal version)



PRODUCT INFORMATION

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.

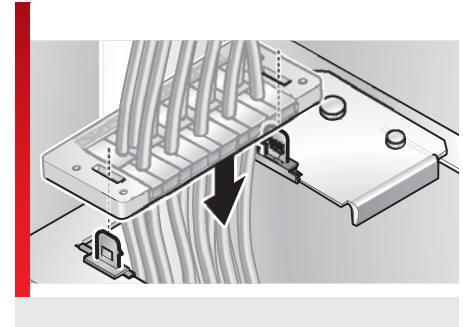
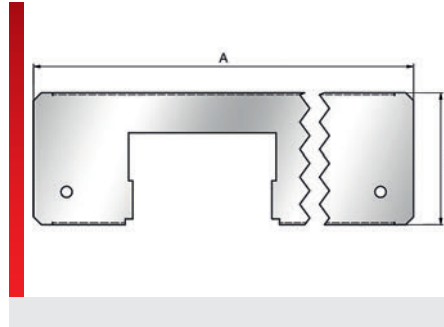
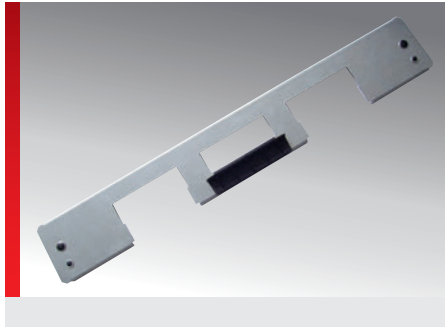
SPECIFICATIONS

 Plate: See article
Seal: NBR

 RoHS

Type	Part number	Color	Material Plate	Pack qty.
KDP BP 120/190 V4A	87663145	Smoothed	V4A (1.4571)	1.00
KDP BP 120/190 ALU	87663096	RAL 7035	AlMg3 (3.3535)	1.00
KDP BP 90/144 ALU	87663091	RAL 7035	AlMg3 (3.3535)	1.00
KDP BP 90/221 ALU	87663093	RAL 7035	AlMg3 (3.3535)	1.00
KDP BP 100/145 V4A	87663090	Smoothed	V4A (1.4571)	1.00
KDP BP 105/155 ALU	87663092	RAL 7035	AlMg3 (3.3535)	1.00
KDP BP 105/155 V4A	87663094	Smoothed	V4A (1.4571)	1.00

Control cabinet floor plate, type SBB



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

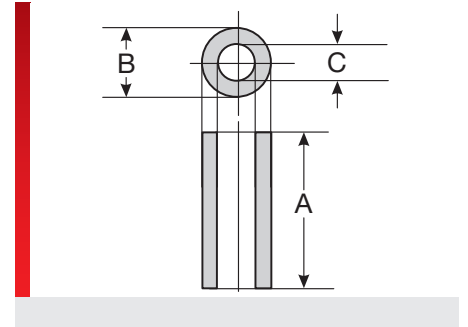
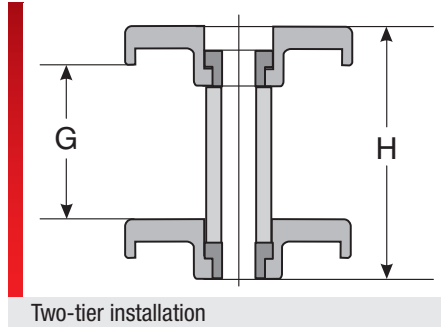
	-40.00 – 257.00 °F
	Floor sheeting: Galvanized sheet steel Locking plates: Polyamide 6.6
	V0
	when installed correctly IP 54
	Made in Germany

Type	Part number	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	1.00
SBB-M5 460-2000	87821022	23.62	2x 24-pin	0.06	18.27	3.94	1.00
SBB-M5 520-3000 ¹⁾	87821032	47.24		0.06	20.63	3.94	1.00
SBB-M5 660-3000	87821042	31.50		0.06	26.14	3.94	1.00
with through-hole							
SBB 420 - 2000 ¹⁾	87821010	39.37	2x KDL/E 24 BPH	0.06	16.69	3.94	1.00
SBB 460 - 2000	87821020	23.62	2x KDL/E 24 BPH	0.06	18.27	3.94	1.00
SBB 520 - 3000 ¹⁾	87821030	47.24	3x KDL/E 24 BPH	0.06	20.63	3.94	1.00
SBB 660 - 3000	87821040	31.50	3x KDL/E 24 BPH	0.06	26.14	3.94	1.00
SBB 860 - 5000 ²⁾	87821050	39.37	5x KDL/E 24 BPH	0.06	34.02	3.94	1.00
Replacement part: Locking plates							
VP24	87821090						5.00
suitable for KDL/E 24							
VP/N 24	87821092						5.00
suitable for KDP, KDL/C and KDL/D 24							

¹⁾ Cabinet width with central strut

²⁾ Cabinet width without central strut

Distance sleeve type DH



PRODUCT INFORMATION

The DH spacer sleeve is required for stacking the ZL strain relief plate. This allows for cables to be stacked, thereby saving space.

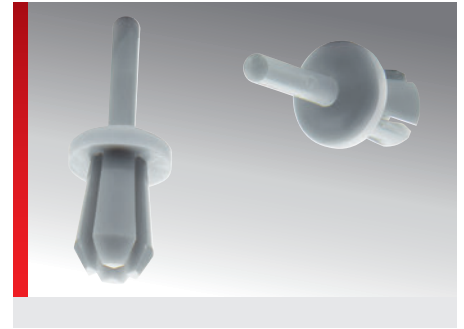
SPECIFICATIONS

Brass

Type	Part number	A inch	B inch	C inch	G inch	H inch	Pack qty.
For ZL 04 and ZL 05							
DH 30/8	87701054	1.18	0.33	0.20	1.02	1.73	1.00
For ZL39 – 180/8							
DH 32/6	87701052	1.26	0.47	0.25	1.10	1.81	1.00
DH 32/8: Typical material ¹⁾	87701062	1.26	0.51	0.33	1.10	1.81	1.00

¹⁾for ZL 180/8 only

Type BN (fixing rivets)



PRODUCT INFORMATION

Plastic expansion rivets for the quick installation of components, e.g. cable ducts. Assembly tool BNW is optimally adjusted to the fixing rivets. Only this tool brings out the full economical effect of the BN fixing rivet.

SPECIFICATIONS

	-76.00 – 176.00 °F
	Hostalene
	RoHS
	Made in Germany

Type	Part number	Color	Holes inch	Shaft length inch	Fixing thickness Min. inch	Fixing thickness Max. inch	Length inch	Pack qty.
BN 1	87621410	Gray	0.12	0.35	0.12	0.30	5.12	500.00
BN 2	87621412	Gray	0.18	0.39	0.12	0.31	5.12	500.00
BN 3	87621414	Gray	0.26	0.59	0.18	0.39	5.12	1000.00

Type 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.

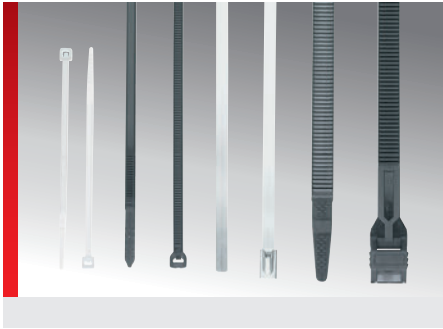
The KBM metal cable tie is ideally used for EMC solutions. It creates greater contact surface area for discharging sheath currents.

SPECIFICATIONS

- KB Polyamide 6.6
KBM Stainless steel 1.4301
- for type KB black only V2
for type KKB only V2
- Black cable ties are UV stabilized

Type	Part number	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	1000.00
KB 20 ¹⁾	87661252	black	3.86	0.10	0.79	60.00	1000.00
KB 22 ¹⁾	87661254	black	4.72	0.10	1.18	80.00	1000.00
KB 25 ¹⁾	87661256	black	5.51	0.14	1.30	130.00	1000.00
KB 30 ¹⁾	87661260	black	6.30	0.18	1.50	180.00	1000.00
KB 45 ¹⁾	87661262	black	7.01	0.19	1.77	220.00	1000.00
KB 50 ¹⁾	87661264	black	7.87	0.11	1.97	80.00	1000.00
KB 55 ¹⁾	87661266	black	7.87	0.19	1.97	220.00	1000.00
KB 75 ¹⁾	87661268	black	11.42	0.19	2.95	220.00	100.00
KB 100 ¹⁾	87661270	black	14.17	0.19	3.94	220.00	100.00
KB 110 ¹⁾	87661272	black	14.57	0.31	4.13	540.00	100.00
Power cable tie with special lock							
KKB 28 ²⁾	87661258	black	7.09	0.31	1.57	360.00	100.00
Plastic cable ties							
KB 15 ¹⁾	87661210	Natural color	2.95	0.09	0.59	60.00	1000.00
KB 20 ¹⁾	87661214	Natural color	3.86	0.10	0.79	60.00	1000.00
KB 22 ¹⁾	87661218	Natural color	5.12	0.10	1.18	80.00	1000.00
KB 25 ¹⁾	87661222	Natural color	5.51	0.14	1.30	130.00	1000.00
KB 30 ¹⁾	87661226	Natural color	6.30	0.18	1.50	180.00	1000.00
KB 45 ¹⁾	87661230	Natural color	7.01	0.19	1.77	220.00	1000.00
KB 50 ¹⁾	87661234	Natural color	7.87	0.11	1.97	80.00	1000.00
KB 55 ¹⁾	87661238	Natural color	7.87	0.19	1.97	220.00	1000.00

Type KB/KBM (cable tie) (Continued...)



Type	Part number	Color	Length inch	Width inch	Bundle range inch	Tensile strength max.	Pack qty.
KB 75 ¹⁾	87661242	Natural color	11.42	0.19	2.95	220.00	100.00
KB 100 ¹⁾	87661246	Natural color	14.17	0.19	3.94	220.00	100.00
KB 110 ¹⁾	87661248	Natural color	14.57	0.31	4.13	540.00	100.00
Metal cable tie							
KBM ³⁾	87661014		7.87	0.17	1.97	445.00	100.00

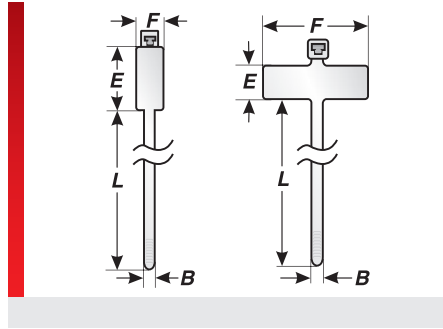
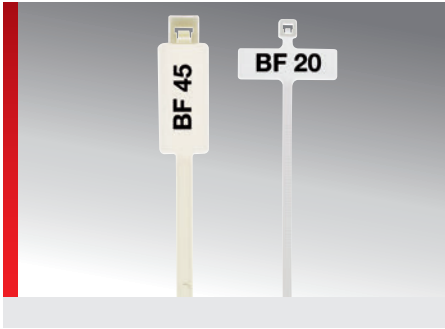
The dimensions may deviate for technical or production reasons.

¹⁾ Recommended assembly tool for all widths of KKBW to 6 mm (0.24 in.) width KBW 1K.

²⁾ Recommended assembly tool KKBW

³⁾ Recommended assembly tool KBW/M

Type BF (cable tie)



PRODUCT INFORMATION

Cable tie with title block.
For use with ink pens or permanent waterproof markers.

BF20 (Fig. right)
Labeling field lengthwise on cable.

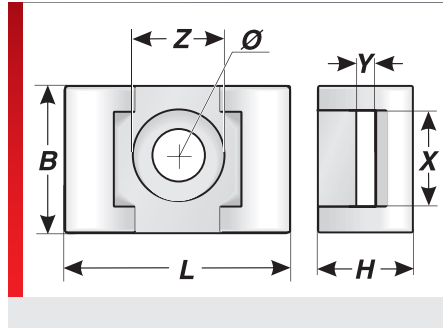
BF45 (Fig. left)
Labeling field across the cable.

SPECIFICATIONS

	-13.00 – 185.00 °F
	Polyamide
	RoHS

Type	Part number	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	100.00
BF 45	87681012	Natural color	0.19	1.10	0.51	6.18	1.77	222.00	100.00

Type SH (screwed holder)



PRODUCT INFORMATION

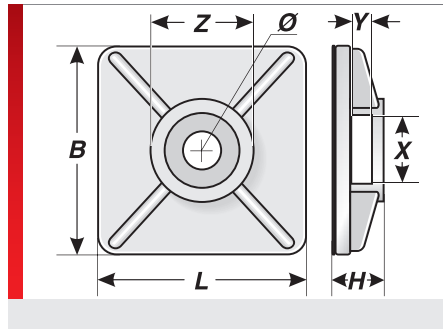
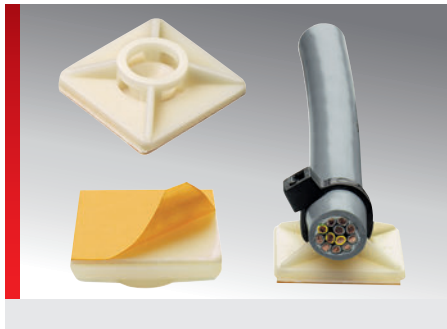
The SH screw-down holder is used to fix individual cables cost-effectively. It can be screwed or riveted to any surface.

SPECIFICATIONS

-40.00 – 185.00 °F
 Polyamide
 RoHS

Type	Part number	Color	L inch	B inch	H inch	X inch	Y inch	Z inch	Ø inch	Pack qty.
SH 1	87681210	White	0.59	0.39	0.28	0.20	0.08	0.28	0.15	100.00
SH 2	87681212	White	0.89	0.59	0.43	0.36	0.11	0.39	0.20	100.00

Type KH (screwed and adhesive holder)



PRODUCT INFORMATION

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.

SPECIFICATIONS

-40.00 – 185.00 °F
 Polyamide
 RoHS

Type	Part number	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	100.00
KH 2	87681222	White	1.06	1.06	0.30	0.24	0.09	0.38	0.19	100.00

KB-fix Velcro strip



PRODUCT INFORMATION

The KB-fix Velcro strip is made of Polypropylene and Velour Polyamide. It serves as a mounting aid in the fields of electrical and pneumatic installations, for instance in steering and control cabinets, on machines and/or residential installations, for consumer applications and much more. The Velcro (hook and loop) fastener strips are available on a 25 m (82.02 ft) roll and are cut as required.

Particular benefits of the KB-fix Velcro strip are:

- Very simple handling
- Fire classification V2 per UL94
- Does not constrict sensitive lines such as fiber optic cables or pneumatic hoses
- Can be opened and closed hundreds of times
- No injuries possible from sharp edges, as from shortened cable ties

SPECIFICATIONS

	-22.00 – 176.00 °F
	Polypropylene (PP) Polyamide 6
	V2

Type	Part number	Color	Width inch	Pack qty.
KB-fix 10-V2	87661802	black	0.39	82.02
KB-fix 16-V2	87661804	black	0.63	82.02
KB-fix 20-V2	87661806	black	0.79	82.02
KB-fix 25-V2	87661808	black	0.98	82.02



Type KBW / KKBW (Cable tie tools for plastic cable ties)



KKBW



KBW 1K

PRODUCT INFORMATION

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	Part number	Approx. length inch	Pack qty.
For plastic cable ties			
KBW 1K	87661012	6.69	1.00
With adjustable automatic cutting device			
Suitable for cable ties of up to 6 mm (0.24 in.) wide			
For plastic cable ties type KKB			
KKBW	87669094	7.48	1.00
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 8 mm (0.31 in.) wide			

Hydraulic manual punch, type SW-HG



PRODUCT INFORMATION

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

SPECIFICATIONS



Type	Part number	Weight lb. / piece	Punching force kN	Operating pressure psi	Pack qty.
Compact hydraulic manual punch, straight					
SW-HG hydraulic manual punch	87801010	6.48	75.00	9427.45	1.00
consisting of:					
1 pce. compact hydraulic manual punch					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (3-parts)					
1 pce. tap drill 11.0 mm (0.43 in.)					
1 pce. transport case					
Punching performance, round hole perforator:					
2.0 mm (0.08 in.) sheet steel (St37) max. Ø 84 mm (3.31 in.)					
3.0 mm (0.12 in.) sheet steel (St37) max. Ø 64 mm (2.52 in.)					
2.0 mm (0.08 in.) stainless steel (V2A) max. Ø 84 mm (3.31 in.)					
Punching performance, square hole perforator:					
2.0 mm (0.08 in.) sheet steel (St37) max. 36 x 112 mm (1.42 x 4.41 in.)					
Spare part see chapter „spare part for punching tool“					

Hydraulic manual punch, type SW-HW



PRODUCT INFORMATION

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.

SPECIFICATIONS



Type	Part number	Weight lb. / piece	Punching force kN	Operating pressure psi	Pack qty.
Compact hydraulic manual punch with pivoting head					
SW-HW hydraulic manual angled punch	87801012	7.28	75.00	9427.45	1.00
consisting of:					
1 pce. compact hydraulic manual punch					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (3-parts)					
1 pce. tap drill 11.0 mm (0.43 in.)					
1 pce. transport case					
Punching performance, round hole perforator:					
2.0 mm (0.08 in.) sheet steel (St37) max. Ø 84 mm (3.31 in.)					
3.0 mm (0.12 in.) sheet steel (St37) max. Ø 64 mm (2.52 in.)					
2.0 mm (0.08 in.) stainless steel (V2A) max. Ø 84 mm (3.31 in.)					
Punching performance, square hole perforator:					
2.0 mm (0.08 in.) sheet steel (St37) max. 36 x 112 mm (1.42 x 4.41 in.)					
Spare part see chapter „spare part for punching tool“					

Hydraulic punch with foot pump, type SW-HF



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	Part number	Weight lb. / piece	Punching force kN	Operating pressure psi	Pack qty.
Hydraulic punch with foot pump					
SW-HF hydraulic punch with foot pump	87801014	30.69	100.00	10152.64	1.00
consisting of:					
1 pce. hydraulic cylinder with quick coupling					
1 pce. hydraulic conduit 2.8 m (9.19 ft)					
1 each tension bolt version A					
1 pce. tension bolt version A					
1 pce. spacer bushing set (5-parts)					
1 pce. tap drill 11.0 mm (0.43 in.)					
1 pce. sheet steel transport case					
Punching performance, round hole perforator:					
2.0 mm (0.08 in.) sheet steel (St37) max. Ø 150 mm (5.91 in.)					
3.0 mm (0.12 in.) sheet steel (St37) max. Ø 100 mm (3.94 in.)					
2.0 mm (0.08 in.) stainless steel (V2A) max. Ø 100 mm (3.94 in.)					
Punching performance for square hole punch:					
2.0 mm sheet steel (St37) max. 138 x 138 mm (5.43 x 5.43 in.)					
2.0 mm stainless steel sheet (V2A) max. 92 x 92 mm (3.62 x 3.62 in.)					
Spare part see chapter „spare part for punching tool“					

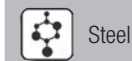
Punching tools, type SW-WR (rectangular)



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

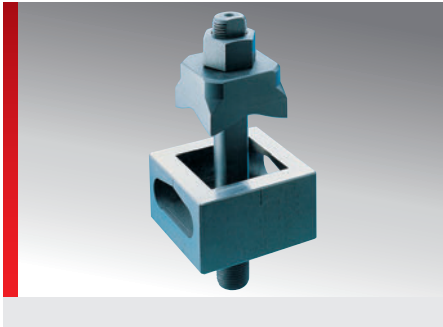


Type	Part number	Punching inch	Cut-out for	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
Hole puncher (rectangular) for sheet steel with centering tips					
SW-WR 17.0x19.0 ¹⁾	87801330	0.67 x 0.75		• / •	1.00
SW-WR 21.8x25.8 ¹⁾	87801332	0.86 x 1.02		• / •	1.00
SW-WR 22.0x30.0 ¹⁾	87801334	0.87 x 1.18		• / •	1.00
SW-WR 22.0x42.0 ¹⁾	87801336	0.87 x 1.65		• / •	1.00
SW-WR 23.0x57.0 ¹⁾	87801339	0.91 x 2.24		• / •	1.00
SW-WR 25.0x30.0 ¹⁾	87801340	0.98 x 1.97		• / •	1.00
SW-WR 36.0x52.0 ¹⁾	87801350	36.0 x 2.05	heavy-duty plug-and-socket connector 6-pole	• / •	1.00
SW-WR 36.0x46.0 ¹⁾	87801358	1.42 x 1.81	KDL/C & KDL/D 6	• / •	1.00
SW-WR 36.0x65.0 ¹⁾	87801352	1.42 x 2.56		• / •	1.00
SW-WR 45.0x92.0 ¹⁾	87801342	1.77 x 3.62		• / •	1.00
SW-WR 46.0x112.0 ¹⁾	87801356	1.81 x 4.41		- / •	1.00
SW-WR 46.0x86.0 ¹⁾	87801354	1.81 x 3.39		• / •	1.00
SW-WR 46.0x92.0 ¹⁾	87801344	1.81 x 3.62		• / •	1.00
SW-WR 68.0x138.0 ²⁾	87801346	2.68 x 5.43		- / •	1.00
SW-WR 82.0x132.0 ²⁾	87801382	3.23 x 5.2		- / •	1.00
SW-WR 86.0x36.0 ¹⁾	87801292	3.39 x 1.42		• / •	1.00
SW-WR 91.0x36.0 ¹⁾	87801294	3.58 x 1.42		• / •	1.00
SW-WR 112.0x36.0 ¹⁾	87801290	4.41 x 1.42		• / •	1.00

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

²⁾ suitable for sheet steel ≤ 3 mm (0.12 in)

Punching tools, type SW-WQ



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

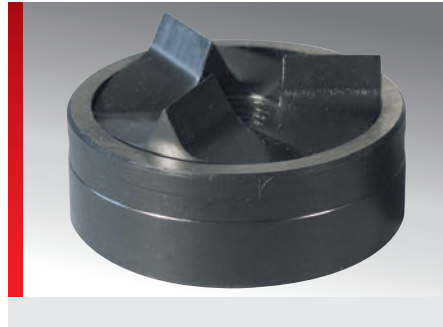
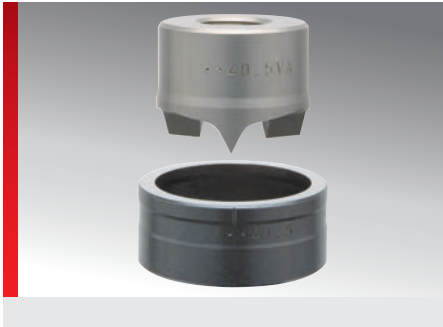
Steel

Made in Germany

Type	Part number	Punching inch	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	• / •	1.00
SW-WQ 15.8x15.8 ¹⁾	87801302	0.62 x 0.62	• / •	1.00
SW-WQ 19.0x19.0 ¹⁾	87801304	0.75 x 0.75	• / •	1.00
SW-WQ 22.2x22.2 ¹⁾	87801306	0.87 x 0.87	• / •	1.00
SW-WQ 24.0x24.0 ¹⁾	87801308	0.94 x 0.94	• / •	1.00
SW-WQ 25.4x25.4 ¹⁾	87801310	1.0 x 1.0	• / •	1.00
SW-WQ 45.8x15.8 ¹⁾	87801312	1.79 x 1.79	• / •	1.00
SW-WQ 46.0x46.0 ¹⁾	87801314	1.81 x 1.81	• / •	1.00
SW-WQ 50.8x50.8 ¹⁾	87801316	2.0 x 2.0	• / •	1.00
SW-WQ 68.0x68.0 ¹⁾	87801318	2.68 x 2.68	• / •	1.00
SW-WQ 92.0x92.0 ¹⁾	87801320	3.62 x 3.62	- / •	1.00
SW-WQ 125.0x125.0 ¹⁾	87801322	4.92 x 4.92	- / •	1.00
SW-WQ 138.0x138.0 ¹⁾	87801324	5.43 x 5.43	- / •	1.00

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

Punching tools, type SW-WE



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	Part number	Dimension	Punching inch	Cut-out for	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		• / •	1.00
SW-WE-NS M20 ¹⁾	87801212	M20	0.80		• / •	1.00
SW-WE-NS M25 ¹⁾	87801214	M25	1.00		• / •	1.00
SW-WE-NS M32 ²⁾	87801216	M32	1.28		• / •	1.00
SW-WE-NS M40 ²⁾	87801218	M40	1.59		• / •	1.00
SW-WE-NS M50 ²⁾	87801220	M50	1.99	KDP/R M50/x	• / •	1.00
SW-WE-NS M63 ²⁾	87801222	M63	2.50	KDP/R M63/x	• / •	1.00
SW-WE-NS Pg09 ¹⁾	87801238	Pg09	0.60		• / •	1.00
SW-WE-NS Pg11 ¹⁾	87801240	Pg11	0.73		• / •	1.00
SW-WE-NS Pg13 ¹⁾	87801242	Pg13	0.80		• / •	1.00
SW-WE-NS Pg16 ¹⁾	87801244	Pg16	0.89		• / •	1.00
SW-WE-NS Pg21 ¹⁾	87801246	Pg21	1.11		• / •	1.00
SW-WE-NS Pg29 ²⁾	87801248	Pg29	1.46		• / •	1.00
SW-WE-NS Pg36 ²⁾	87801250	Pg36	1.85		• / •	1.00
SW-WE-NS Pg42 ²⁾	87801252	Pg42	2.13		• / •	1.00
SW-WE-NS Pg48 ²⁾	87801254	Pg48	2.36		• / •	1.00
Hole perforator (round) for Steel and stainless steel sheets						
SW-WE-VA M16 ³⁾	87801224	M16	0.64		• / •	1.00
SW-WE-VA M20 ³⁾	87801226	M20	0.80		• / •	1.00
SW-WE-VA M25 ³⁾	87801228	M25	1.00		• / •	1.00
SW-WE-VA M32 ⁴⁾	87801230	M32	1.28		• / •	1.00
SW-WE-VA M40 ⁴⁾	87801232	M40	1.59		• / •	1.00

Punching tools, type SW-WE (Continued...)

Type	Part number	Dimension	Punching inch	Cut-out for	Suited for Hydraulic punch SW-HG (HW) / SW-HF	Pack qty.
SW-WE-VA M50 ⁴⁾	87801234	M50	1.99	KDP/R M50/x	• / •	1.00
SW-WE-VA M63 ⁴⁾	87801236	M63	2.50	KDP/R M63/x	• / •	1.00
SW-WE-VA Pg09 ³⁾	87801256	Pg09	0.60		• / •	1.00
SW-WE-VA Pg11 ³⁾	87801258	Pg11	0.73		• / •	1.00
SW-WE-VA Pg13 ³⁾	87801260	Pg13	0.80		• / •	1.00
SW-WE-VA Pg16 ³⁾	87801262	Pg16	0.89		• / •	1.00
SW-WE-VA Pg21 ⁴⁾	87801264	Pg21	1.11		• / •	1.00
SW-WE-VA Pg29 ⁴⁾	87801266	Pg29	1.46		• / •	1.00
SW-WE-VA Pg36 ⁴⁾	87801268	Pg36	1.85		• / •	1.00
SW-WE-VA Pg42 ⁴⁾	87801270	Pg42	2.13		• / •	1.00
SW-WE-VA Pg48 ⁴⁾	87801272	Pg48	2.36		• / •	1.00

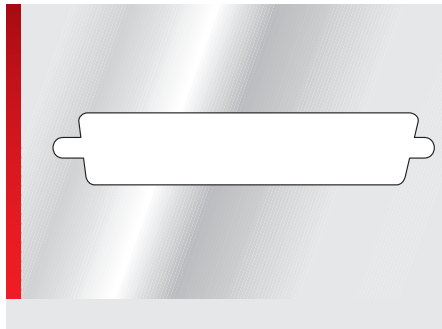
¹⁾ suitable for sheet steel <= 2 mm (0.12 in)

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)

Punching tools, type SW-WD



PRODUCT INFORMATION

Punching tool for creation of SUB-MIN-D connector 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

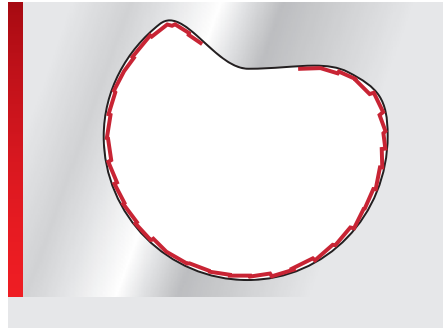
Made in Germany

Type	Part number	Punching for	Pack qty.
Hole perforator for SUB-MIN-D connector			
SW-WD 9-pole ¹⁾	87801360	SUB-MIN-D 9-pole	1.00
SW-WD 15-pole ¹⁾	87801362	SUB-MIN-D 15-pole	1.00
SW-WD 25-pole ²⁾	87801364	SUB-MIN-D 25-pole	1.00
SW-WD 37-pole ²⁾	87801366	SUB-MIN-D 37-pole	1.00
SW-WD 50-pole ²⁾	87801368	SUB-MIN-D 50-pole	1.00

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

²⁾ suitable for sheet steel ≤ 1.65 mm (0.06 in)

Punching tools, type SW-ASN



PRODUCT INFORMATION

Universal punching tool for creation of various cut-out sizes and shapes. Tools with hole punch width 15 and 20 mm (0.59 and 0.79 in.).

SPECIFICATIONS

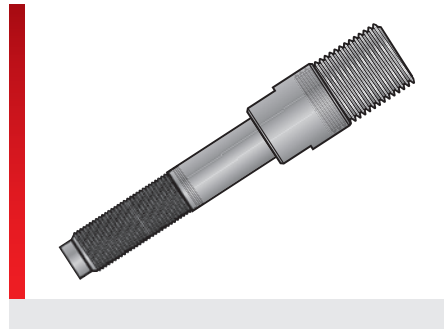
Steel

Made in Germany

Type	Part number	Hole punch width inch	Hole punch length inch	Hole diameter inch	Pack qty.
Special ASN nibbling tool					
SW-ASN 15 ¹⁾	87801370	0.59	0.26	0.85	1.00
SW-ASN 20 ¹⁾	87801372	0.79	0.35	1.12	1.00

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	Part number	Length inch	Pilot hole inch	Pack qty.
Tensioning screw				
SW-WE-ZS Type A	87801410	3.94	0.39	1.00
SW-WE-ZS Type B	87801412	3.94	0.45	1.00
SW-WE-ZS Type C	87801414	4.72	0.79	1.00
SW-WE-ZS Type D	87801416	6.50	0.94	1.00
SW-WE-ZS Type E	87801434	6.81	1.18	1.00
SW-WE-ZS Type F	87801436	5.55	0.79	1.00
SW-WE-ZS Type G	87801438	4.17	0.55	1.00
SW-WE-ZS Type H	87801440	3.43	0.39	1.00
SW-WE-ZS Type K	87801442	4.17	0.67	1.00
SW-WE-ZS Type L	87801444	3.43	0.39	1.00
Spacer bushing set				
SW-WS-DS 3-pce.	87801430			1.00
SW-WS-DS 5-pce.	87801432			1.00
Pre-drill				
SW-WE-VB 10.0 mm (0.39 in.)	87801420			1.00
SW-WE-VB 11.0 mm (0.43 in.)	87801422			1.00
SW-WE-VB 11.5 mm (0.45 in.)	87801424			1.00
Replacement stamp for special nibbling tool				
SW-ASN 15 stamp	87801374			1.00
SW-ASN 20 stamp	87801376			1.00










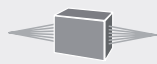









Protection classes according to DIN EN 60529

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 (1.97 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 (0.49 in) dia. 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 (0.10 in) dia. and above.	The object probe of diameter 2.5 mm (0.10 in) must not penetrate at all. 	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 (0.04 in) dia. and above.	The object probe of diameter 1.0 mm (0.04 in) must not penetrate at all. 	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 classification pursuant 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

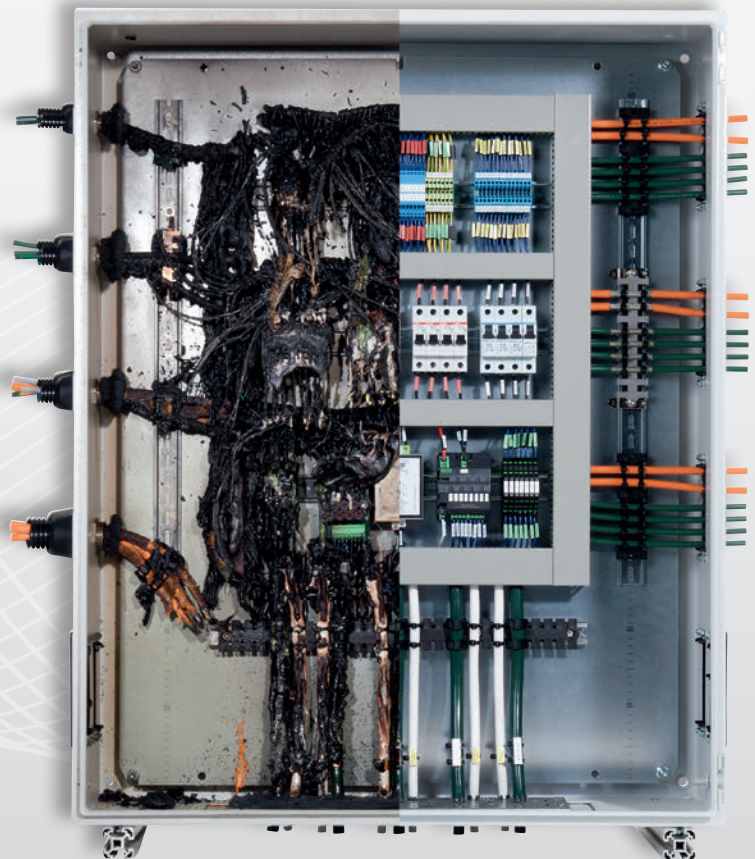
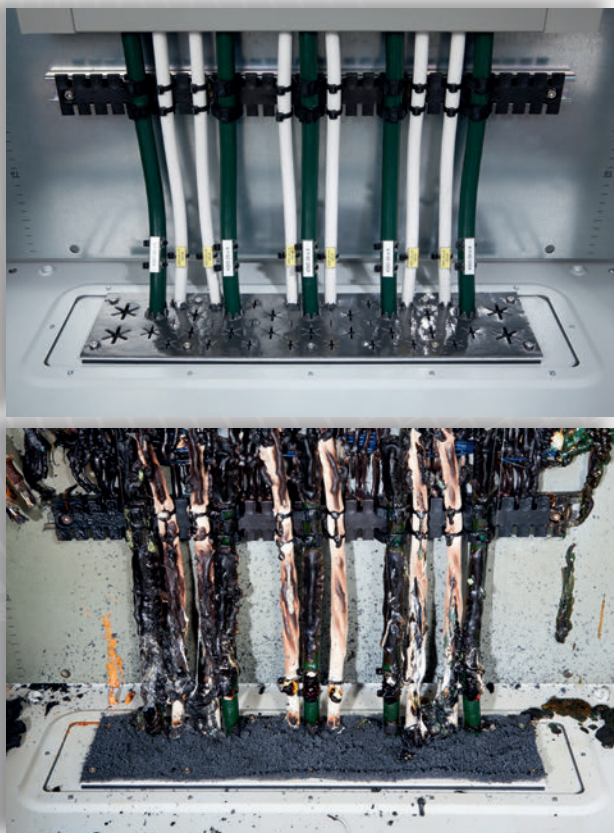
In the vertical combustion test, self-extinguishing must occur after an average of 25 seconds (individual values not to exceed 30 seconds). Any dripping material may ignite cotton wool located underneath. However, any afterglow must not exceed 60 seconds.

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



GL approval
Germanischer Lloyd



UR approval



CURUS approval



General technical data
Additional information



CE (EU Directive 765/2008)



RoHS (EC Directive 202/95/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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All information regarding the chemical and physical properties of Murrplastik products, as well as application advice given verbally, in writing or in experiments, is given to the best of our knowledge.

It does not exempt the purchaser from the duty to carry out inspections and tests to determine the exact suitability of the products for the intended use.

The purchaser is solely liable for the application, use, and installation of the products. He must also comply with the legal and official provisions, and observe any industrial property rights of third parties.

Our General Terms and Conditions apply.

Subject to technical alterations.



Cable entry system Type KDL/C and KDL/D

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Cable entry system Type KDL/H

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Cable entry system Type KDL/E

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Cable entry system Type KDL-Jumbo

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KDP cable entry plate, plastic, rectangular

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KDP cable entry plate, plastic, round

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Cable entry plate Type KDP, metal, cablequick®

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Cable entry plates for railway technology

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SPECIFICATIONS



Thermal properties
Application range



Material properties
Product Components



Fire behavior
Fire classification



General technical data
Additional information



Protection rating
International Protection

COMPLIANCE WITH



RoHS (EC Directive 202/95/EC)

APPROVALS AND OPERATING PERMITS



Approved for EU railways



CSA approval



EX approval



GL approval
Germanischer Lloyd



UR approval



CURUS approval



www.mp.de

Germany (Headquarters)

Murrplastik Systemtechnik GmbH
Postfach 1143
71567 Oppenweiler
☎ +49 7191 4820
www.murrplastik.de
info@murrplastik.de

America (North/South)

Murrplastik Systems Inc.
1175 US Highway 50
Milford, OH 45150
☎ +1 513 201 30 69
www.murrplastik.com
cablemgmt@murrplastik.com

Austria

Murrplastik Systemtechnik GmbH
☎ +43 732 660 870
www.murrplastik.at
info@murrplastik.at

China

Murrplastik Asia Co., Ltd.
1802 Rm. No. 218
Hengfeng Rd.
200070 Shanghai
☎ +86 21 512 869 25
www.murrplastik.com.cn
info@murrplastik.com.cn

Denmark

Filial af
Murrplastik Systemtechnik GmbH
Tyskland, Stenager 2
6400 Sønderborg
☎ +45 2347 00 24
www.murrplastik.dk
info@murrplastik.dk

France

Murrtechnic S.à.r.l
Zone industrielle Sud,
6 rue Manurhin
B.P. 62, 68120 Richwiller
☎ +33 389 570 010
www.murrtechnic.eu
murrtechnic@murrtechnic.fr

Italy

Murrplastik Italia S.r.l.
Via Circo, 18
20123 Milano
☎ +39 02 856 805 70
www.mp.de
info@it.mp.de

Russia

Офис компании
Murrplastik в Москве
Gilyarovskogo 57, building 1
129110 Moscow
☎ +7 495 684 17 37
www.ru.murrplastik.com
info@ru.murrplastik.com

Switzerland

Murrplastik AG
Ratihard 40
8253 Willisdorf
☎ +41 52 646 06 46
www.murrplastik.ch
info@murrplastik.ch

Spain

Murrplastik S.L.
Paseo Ubarburu, 76
Pabellón 34, polígono 27
20014 San Sebastián
☎ +34 943 444 837
www.murrplastik.es
info@murrplastik.es

