# KDS Cable entries
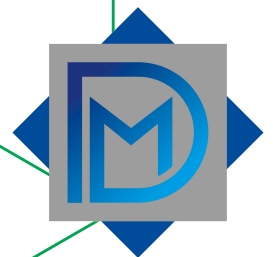# KES Cable entries
# SAB|SSAB|SABK Shielding solutions

**DYNAMIC**
Measurement & Control Solutions, LLC

**CONTACLIP**

# Contents

# CONTA-CLIP –
# Thinking ahead with connection technology

CONTA-CLIP was founded in 1978.
We operate globally as an owner-operated medium-sized company.

Users of electrical and electronic connection systems trust our reliable products and our many years of industrial and global market expertise.

Our company is now one of the most important manufacturers in the field.

For over 40 years, our components and solutions have been used in process and industrial automation applications, including: railway technology, materials handling, building automation, air conditioning, mechanical and facility engineering, measurement and control technology, control panel construction, shipbuilding, transformer construction and environmental technology.

Over the years, we have evolved into an innovator that sets the tone with new ideas and creative impulses.

Our employees come from a wide variety of industries and are true connectivity specialists. They understand the specific problems, requirements and challenges of our customers. This results in communication among equals.

The profits then flow into the development of new products and into modern, efficient manufacturing processes.

High quality standards throughout all departments are our top priority.

Our top-class products are supported by this interplay between top-class men and machinery. We have also designed our range of services to align with customer needs.

Our products are divided into six categories: CONTA-CONNECT for terminals and accessories, CONTA-CABLE cable management systems, CONTA-ELECTRONICS for electrical and electronic cabinet components, CONTA-LABEL for marking systems, CONTA-BOX for housings, and CONTA-CON for PCB terminals and connectors.

We design customer-specific solutions for electronics, provide completely assembled housings and assemblies as needed, assemble terminal blocks for series production, and quickly handle component labelling tasks.

We greet these challenges with passion and enthusiasm, because we see each customer as our partner.

CONTA-CLIP customer representatives are always ready to offer their support to the customer, because service and helpfulness are rooted deeply in our corporate philosophy.

# Advantage online:
# the CONTA-CLIP Online Catalogue

No matter where you are, as long as you're online you can access our digital catalogue to look at our services and quickly identify suitable solutions for your requirements.

**Fast results** Use the full-text search, enter an order number or use the convenient "step-by-step" feature search function.

**Project planning at a glance:** After you've selected the products, all the master data for the materials (sales data, technical data, drawings, connection diagrams, classifications and approvals) are made available as a data sheet or export file.

**Detailed inquiries about components** can be sent via the shopping cart directly to our headquarters. Upon request, you will receive an e-mailed copy of your inquiry.

**Application films:** Complex functions be explained easily and clearly with sounds and images.

**Printed catalogue:** Would you like an offline overview? Please ask for our free printed catalogues.

**Industry-specific:** You will find the solutions that are relevant for your industry, according to your expertise.

**Newsletter:** Do you want to stay up to date? Subscribe to our newsletter! Simply register, confirm our authentication e-mail, and you'll be regularly informed about all CONTA-CLIP news.

Discover how the world of CONTA-CLIP and our website can deliver added value for you and your projects!
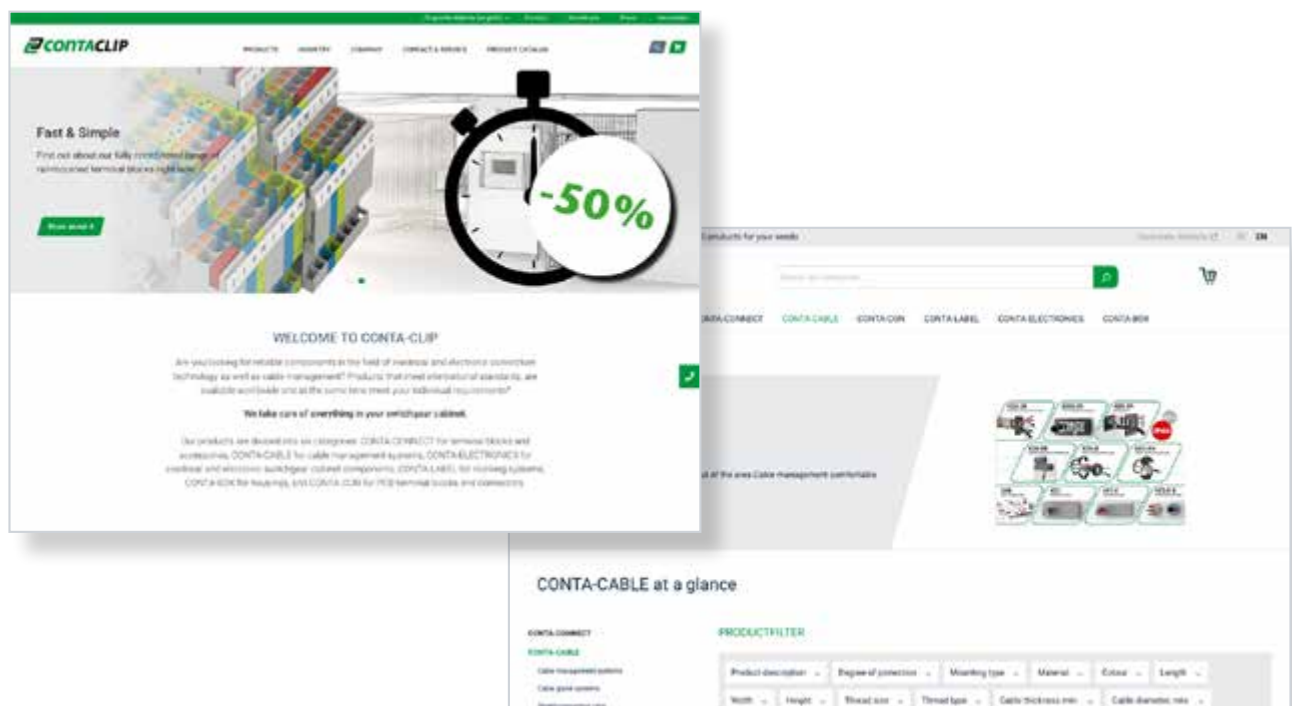
# Globally available for you

Are you working abroad? No problem. Our worldwide sales and distribution partners help us to be globally networked and provide on-time reliable deliveries. Simply scan the QR code shown and you'll learn on our website about the sales partner responsible for your country.



**Our locations in Africa**
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Norway
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
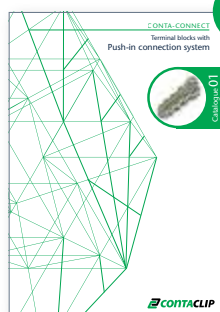Switzerland
Ukraine

**Our locations in North America**
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Mexico
United States

**Our locations in South America**
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Brazil
Chile
Columbia
Ecuador

# A complete line of products to meet your demands
# The CONTA-CLIP Catalogues

**01** **CONTA-CONNECT**
**Terminal blocks with Push-in connection system**
Our wide range of innovative PRK and FRK terminal blocks with the Push-in connection system include feed-through terminals, PE terminals, disconnect terminals, fused terminals, multi-level terminals, installation terminals and initiator terminals, for conductor cross-sections from 0.2 mm² to 25 mm².

Cat. no. 98070.2
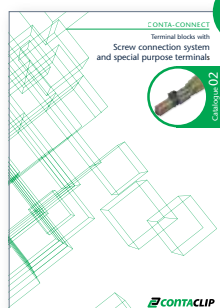
**02** **CONTA-CONNECT**
**Terminal blocks with Screw connection system and special purpose terminals**
Everything for classic wiring with screw connection system, also for high currents: SRK feed-through and PE terminals, RK high-temperature variants, TK transformer terminals, HSK high-power stud terminals and the SVB series screw distributor blocks.

Cat. no. 98071.2
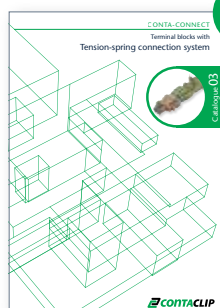
**03** **CONTA-CONNECT**
**Terminal blocks with Tension-spring connection system**
Our versatile line of terminals with tension spring connections for conductor cross-sections from 0.2 mm² to 16 mm² includes: the ZRK/ZSL series of feed-through and PE terminals, the double-level ZRKD/ZSLD, the ZIKD three-level terminal blocks, motor-connection terminals, (blade-) disconnect terminals, fused terminals, direct-mount terminals, and initiator/actuator terminals for transmitting positioning, encoder and alert signals.

Cat. no. 98072.2
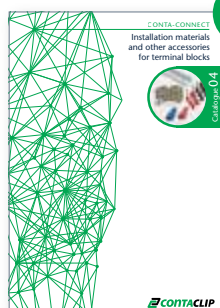
**04** **CONTA-CONNECT**
**Installation materials and other accessories for terminal blocks**
Our installation products include cabling ducts, assembly tools, cable glands with metric or PG threads, DIN rials, rail cutters and punching tools. The terminal block accessories include different versions of end stops, wire-end ferrules, and connectors.

Cat. no. 98073.2
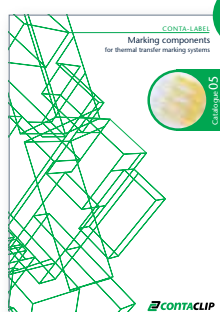
**05** **CONTA-LABEL**
**Marking components for thermal-transfer marking systems**
CONTA-CLIP provides the TTPCard thermal-transfer printer and a large selection of PC, PVC and PVCF markers or labels in card format: for professional, permanent labelling of terminals, devices, conductors, cables, facilities and electrical cabinets.
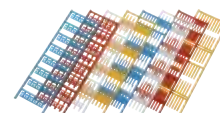
Cat. no. 98074.2

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**Our catalogues are available in many languages!**
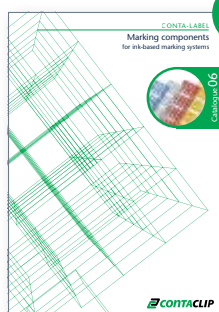
**06 CONTA-LABEL**

**Marking components for ink-based marking systems**
The CONTA-LABEL products provide polyamide markers for labelling conductors, cables, devices and facilities with ink print. These markers are available in many shapes and colours: in the classic MC Maxi-Card format for self-printing with the EMS plotter system EMS or other ink-jet systems, or ready-to-use customized printed in the PMC Pocket-Maxi-Card format.

Cat. no. 98075.2
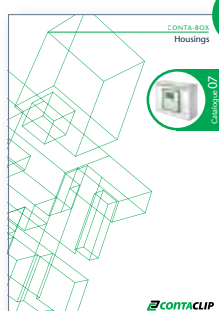
**07 CONTA-BOX**

**Housings**
Our wide variety of housings made of polystyrene, polycarbonate, polyester, ABS and aluminium deliver solutions for protecting electronic circuits, integrated devices and terminal blocks. On request, the housings can be custom-processed and assembled with our CONTA-CONNECT, CONTA-ELECTRONICS and CONTA-CON product lines.

Cat. no. 98076.2

**08 CONTA-CABLE**

**KDS cable entries, KES cable entries, SAB/SSAB/SABK shielding solutions**
The KDS and KES cable entries enable a tool-free, IP66-sealed feed-through for unassembled and assembled cables and hoses. The feed-through openings can be adapted at any time to meet your requirements. The SAB shield-connection clips can be used to provide a reliable shield contact with wire diameters from 3 mm to 35 mm.

Cat. no. 98077.2
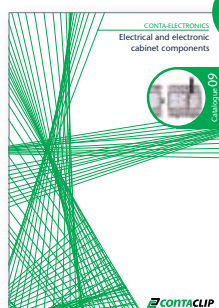
**09 CONTA-ELECTRONICS**

**Electrical and electronic cabinet components**
Our CONTA-ELECTRONICS products provide active and passive components for the transfer and conversion of analogue and digital signals at the coupling level. This product line includes power supplies, multi-function timing relays, coupling relays, digital switching modules, interface modules, opto-couplers, signal converters, GSM communication modules and much more.

Cat. no. 98078.2
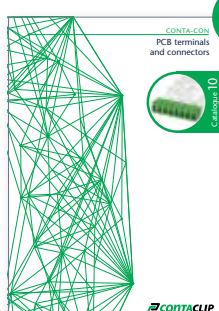
**10 CONTA-CON**

**PCB terminals and connectors**
This catalogue presents CONTA-CON's wide range of PCB terminals and plug-in connector systems, as well as the modular feed-through terminal systems of the SDK series. The modular components can be configured for any required number of poles. They are available in the wire connection types: wire protection, eccentric, clamping yoke, and (for demanding operating conditions) with tension-spring or Push-in wire terminations.
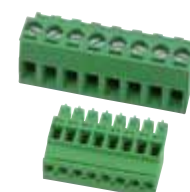
Cat. no. 98079.2

# Cable management systems

### KDS cable entries

The **KDS** cable entry system has a modular design consisting of frames, frame inlays and seals. This enables quick and easy dimensioning of feed-through openings for pre-assembled cables – without the use of tools. The system reliably ensures an IP66 seal. Since the diameter, shape (round or with corners) and number of frame openings can be adapted at any time without any costly dismantling of the frame, electrical cabinets or machine housings can be uniformly prepared for different purposes using KDS. This results in significantly less costs and warehousing overhead. Our wide range of **KDS** seals currently includes more than 140 variants and is constantly being expanded.

### KES cable entries

The **KES** cable entries enable unassembled cables or pneumatic hoses to be quickly inserted into electrical cabinets or housings without using tools. The **KES** entry plates feature a dimensionally stable, elastomer-encapsulated polyamide frame. In order to insert the required number of cables, the surface membrane is first pierced with a screwdriver. Then, the unassembled cables are easily pushed through. Tapered inlet grommets on the back of the plate provide IP66 sealing and reliable strain relief. With up to 32 cables per plate, the **KES** achieves a significantly higher packaging density than conventional entry systems.

The **KES**-**E** cable entry system enables you to insert many cables (without plugs) with diameters ranging from 1.0 mm to 16.1 mm into a very confined space. No tools are needed to insert the cable entry into the opening provided. For inserting the cables, the appropriate membrane is pierced and the cables are simply installed through it. The material TPE guarantees that IP54 protection is maintained.

*Get started now with CONTA-CLIP!*

### SAB|SSAB|SABK shielding solutions

The **SAB** shield-connection clips provides an easy tool-free contact for the cable shield. It is a modular system for mounting on DIN rails, busbars or direct mounting. The system includes shield-connection brackets for cable diameters from 1.5 mm to 65 mm, clamp mounting feet for all attachment types, busbar holders and shield-connection clips with screw or spring contacts. The stripped cable is easily pushed into the **SABK** shield-connection clips. The spring force in the clip then ensures that the shield has a consistently good contact. The large-area shield contact ensures low-impedance discharge resistances, even at high frequencies. The **SAB/SSAB** shield-connection clips cover a clamping range for cable diameters from 3 mm to 35 mm. Busbar supports and end stops for mounting to the bars also supplement this product line.
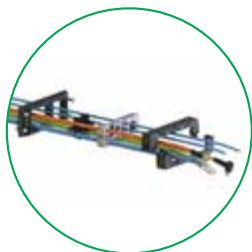
### KDSI-SR
### Inverted, modular cable entry system

The inverted **KDSI-SR** screw frames enable a complete assembly from the outside. They extend the range of our proven KDS cable entry systems.                    Page 10

### KDS-SR
### Modular cable entry system

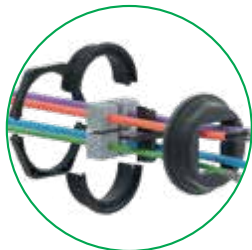The **KDS-SR** screw frames are available in 4 different sizes. The inlays make a wide variety of combinations possible.                    Page 18

### KDS-FP
### Flange plates

The **KDS-FP** flange plates are available in 2 different sizes. The inlays make a wide variety of combinations possible.                    Page 24

### KDS-R
### Round cable entries

Thanks to three different thread and locking adapters and two external frame sizes, the metric break-through sizes M20 to M32 and M40 to M63 can be equipped modularly with the round **KSR-R** cable entries. Assembly is carried out from the outside inwards.                    Page 32

### KDS-KV
### Separable cable glands

The **KDS-KV** separable cable glands are designed for metric cut-outs of 20 to 63 mm diameter.                    Page 40
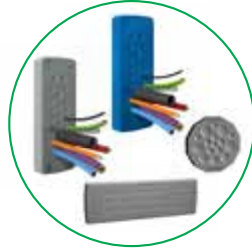
### KDS-FB
### Cable entry system for flat cables

The **KDS-FB** cable entry system for flat cables provides you with outstanding versatility and saves you time while managing cables, especially for industrial trucks, crane systems and elevator applications.                    Page 46

### KES
### Cable entries

The **KES**, **KES-R**, **KES-GB**, **KES-E** and **KES-E-R** cable entry systems are suitable when feeding in unassembled cables or pneumatic and hydraulic hoses. The **KES-GB-FDA**, which are made of FDA-compliant TPE, are available for use in food industry applications.                    Page 62
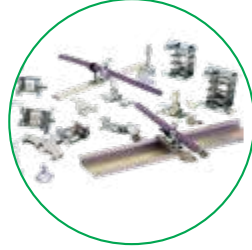
### SAB
### Shielding solutions

Our shield-connection clip products provide a modular system for direct installations, busbar mounting or DIN-rail mounting.                    Page 94

# KDSI-SR
# Inverted, modular cable entry system

The inverted **KDSI-SR** screw frames enable a complete assembly from the outside. They extend the range of our proven **KDS** cable entry systems. The design and the simple, established assembly principle remain practically unchanged. The changes to the inverted versions are the new mirrored geometry of the frame's opening tapers and an additional two-part protective hood, which ensures the tight fit of the sealing elements towards the outside.

The safe IP66 seal and the reliable static strain relief in accordance with DIN EN 62444 is further ensured by the integrated frame gaskets and the conical shape of the sealing elements, which are pressed into the frame openings from the outside.

As with all **KDS** cable entry systems, the modular click-and-plug principle of the **KDSI-SR** means that individual cable entry openings and seals can be reconfigured at any time as required without any extra installation work.

IP66

## Your advantages

- Complete assembly from outside inwards
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies
- Protection: IP66

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# The basic components of the modular system

**Frames. Inlays. Seals. Protective hood. The modular design – with four basic components – provides more versatility, variability and variety.**

## 1. Frame

Made from a single mould, the one-piece frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The integrated TPE gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces. The frames also fit the standard cut-outs for 10-, 16- and 24-pole connectors.

## 2 Inlays

The click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the seal being used. An audible "click" confirms a correct installation. So you can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

## 3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the outside inwards into the openings of the previously installed inlays.
Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

## 4. Protective hood

The two-part protective hood has TPE gaskets at three different levels; this ensures that an IP66 seal is achieved.
The two-part protective hood also guarantees the tight fit of the pressed-in sealing elements to the outside and covers the screws of the one-part frame.

## Your advantages:
### More versatility and safety

The sealing elements can be released by pressing from the inside to the outside. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame.

# KDSI-SR
# Inverted, modular cable entry system

## An overview of your advantages

**Attaching the frame**
The one-piece frame can be easily and quickly attached to the wall.

**Fast assembly from outside inwards for easier, friendlier servicing**
The frame does not need to be disassembled if your requirements change or if you're carrying out service work.
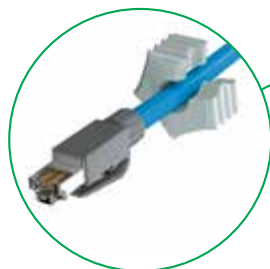
**Protective hood**
The two-part protective hood has TPE gaskets at three levels and guarantees IP66 protection. A tight fit for the sealing elements, pressed in from the outside, is also guaranteed.

**No loss of guarantee: assembled cables**
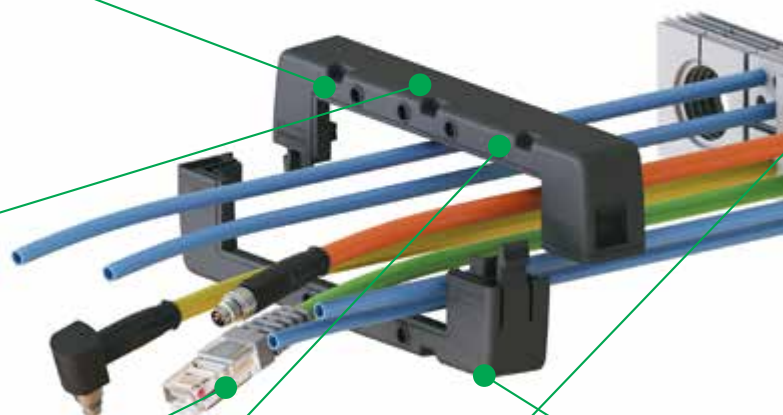No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.

**Optional external locking mechanism**
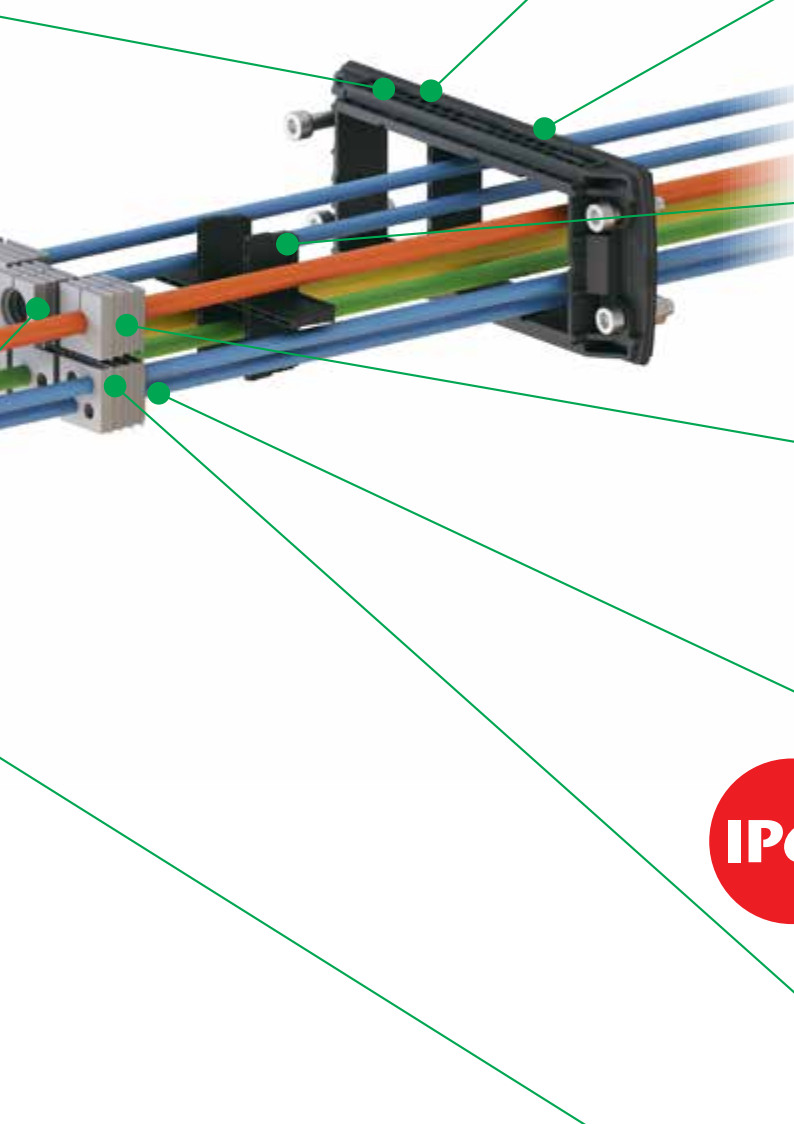The optional external locking mechanism **KDSI-AVR** secures the sealing elements so that they cannot be pressed out without tools.

**Versatile, high-density assemblies are possible**
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

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**Outstanding versatility with optimized warehousing**
The frames, inlays, seals and protective hoods can be combined in many ways – ensuring you many versatile configuration options.

**Captive gasket**
The integrated frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

**Safe and quick installation with feedback**
An audible "click" confirms that the inlay has been properly installed in the frame.

Click

**Integrated strain relief**
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

**Outstanding IP66 seal**
Conic-tapered seals feature inner and outer sealing gills.

IP66

**Smart separation of the seals**
The wave-cut profile makes them easy to install and ensures a perfect fit around the cables.

**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone, suitable for many different applications.

UL TYPE Rating **12**

UL TYPE* Rating **4x**

IP66

RoHS compliant

Made in Germany

CAD

*   4x is for indoor use only

# KDSI-SR
# Inverted, modular cable entry system

| Frames and inlays | KDSI-SR 1-4 | KDSI-SR 6/10 | KDSI-SR 8/16 | KDSI-SR 10/24 |
|---|---|---|---|---|
| | | | | |
| **Diagram** | Page 16 | Page 16 | Page 16 | Page 16 |
| **Type** | **KDSI-SR 1-4 BK** | **KDSI-SR 6/10 BK** | **KDSI-SR 8/16 BK** | **KDSI-SR 10/24 BK** |
| Cat. no.                              Qty. | 28880.4                    1 | 28881.4                    1 | 28882.4                    1 | 28883.4                    1 |
| Description | Screw frame with two-part protective hood | Screw frame with two-part protective hood | Screw frame with two-part protective hood | Screw frame with divided protective hood |
| **Type / Set** | **KDSI-Set 1-4 BK** | **KDSI-Set 6/10 BK** | **KDSI-Set 8/16 BK** | **KDSI-Set 10/24 BK** |
| Cat. no.                              Qty. | 28890.4                    1 | 28891.4                    1 | 28892.4                    1 | 28893.4                    1 |
| Description Set consists of: | 1 x KDSI-SR 1-4 BK, 1 x KDS-Inlay 4 BK | 1 x KDSI-SR 6/10 BK, 1 x KDS-Inlay 2 BK, 1 x KDS-Inlay 6 BK | 1 x KDSI-SR 8/16 BK, 1 x KDS-Inlay 1 BK, 2 x KDS-Inlay 4 BK | 1 x KDSI-SR 10/24 BK, 1 x KDS-Inlay 2 BK, 1 x KDS-Inlay 4 BK, 1 x KDS-Inlay 6 BK |
| **Accessories** **Inlay** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** |
| Cat. no.                              Qty. | 28516.4                    5 | 28516.4                    5 | 28516.4                    5 | 28516.4                    5 |
| Description | For separating vertically | For separating vertically | For separating vertically | For separating vertically |
| **Inlay** | **KDS-Inlay 2 BK** | **KDS-Inlay 2 BK** | **KDS-Inlay 2 BK** | **KDS-Inlay 2 BK** |
| Cat. no.                              Qty. | 28517.4                    5 | 28517.4                    5 | 28517.4                    5 | 28517.4                    5 |
| Description | T-shape | T-shape | T-shape | T-shape |
| **Inlay** | **KDS-Inlay 4 BK** | **KDS-Inlay 4 BK** | **KDS-Inlay 4 BK** | **KDS-Inlay 4 BK** |
| Cat. no.                              Qty. | 28518.4                    5 | 28518.4                    5 | 28518.4                    5 | 28518.4                    5 |
| Description | for 4-way splits | for 4-way splits | for 4-way splits | for 4-way splits |
| **Inlay** | | **KDS-Inlay 6 BK** | **KDS-Inlay 6 BK** | **KDS-Inlay 6 BK** |
| Cat. no.                              Qty. | | 28519.4                    5 | 28519.4                    5 | 28519.4                    5 |
| Description | | for 6-way splits | for 6-way splits | for 6-way splits |
| **Replacement protective hood (two-part)** | **KDSI-AD 1-4 BK** | **KDSI-AD 6/10 BK** | **KDSI-AD 8/16 BK** | **KDSI-AD 10/24 BK** |
| Cat. no.                              Qty. | 28885.4                    1 | 28886.4                    1 | 28887.4                    1 | 28888.4                    1 |
| Description | Spare cover | Spare cover | Spare cover | Spare cover |
| **Outer locking mechanism (optional)** | **KDSI-AVR BK** | **KDSI-AVR BK** | **KDSI-AVR BK** | **KDSI-AVR BK** |
| Cat. no.                              Qty. | 28894.4                   20 | 28894.4                   20 | 28894.4                   20 | 28894.4                   20 |
| **Sheet-metal hole punch** | **BL KDS-SR 1-4** | **BL KDS-SR 6/10** | **BL KDS-SR 8/16** | **BL KDS-SR 10/24** |
| Cat. no.                              Qty. | 28674.0                    1 | 28675.0                    1 | 28676.0                    1 | 28677.0                    1 |
| Description | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points |
| **Actuating tool** | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| Cat. no.                              Qty. | 28622.0                    1 | 28622.0                    1 | 28622.0                    1 | 28622.0                    1 |
| **Seals** **Grey** | **Small and large** | **Small and large** | **Small and large** | **Small and large** |
| Cat. no. | Page 56 | Page 56 | Page 56 | Page 56 |
| **Seals** **Black** | **Small and large** | **Small and large** | **Small and large** | **Small and large** |
| Cat. no. | Page 57 | Page 57 | Page 57 | Page 57 |

UL

UL TYPE Rating **12**

UL TYPE* Rating **4x**

IP66

RoHS compliant

Made in Germany

CAD

## Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

\* 4x is for indoor use only

# KDSI-SR
# Combination examples

**KDSI-SR 1-4**



**KDS-Inlay 4 BK**
*28518.4*

**KDSI-SR 6/10**



**KDS-Inlay 6 BK**
*28519.4*

**KDS-Inlay 2 BK**
*28517.4*

**KDSI-SR 8/16**



**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 4 BK**
*28518.4*



**KDSI-SR 10/24**



**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 6 BK**
*28519.4*

**KDS-Inlay 6 BK**
*28519.4*



**KDS-Inlay 2 BK**
*28517.4*

# KDSI-SR
## Dimensional diagrams and mounting cut-outs

### KDSI-SR 1-4

| Dimensional diagram | Mounting cut-out |
| --- | --- |
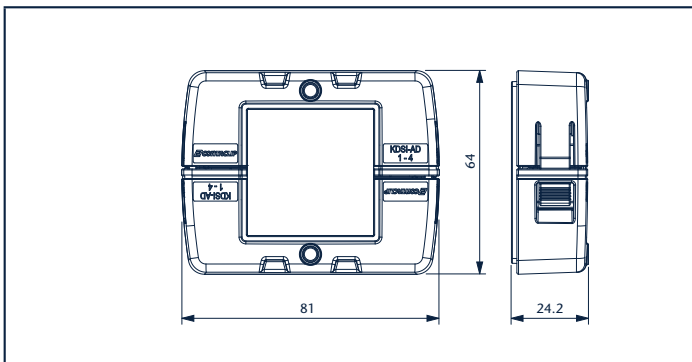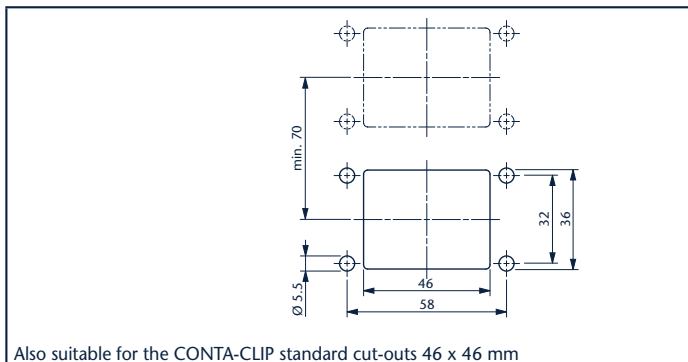


Also suitable for the CONTA-CLIP standard cut-outs 46 x 46 mm
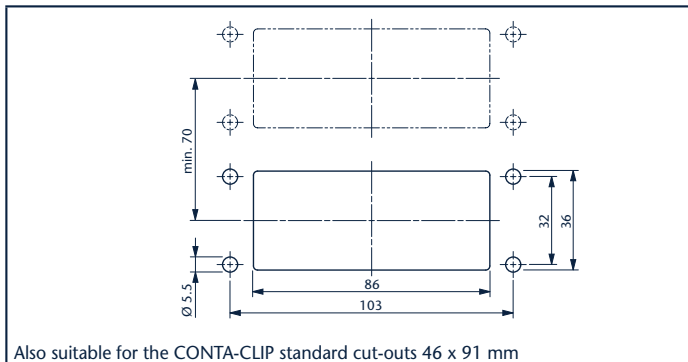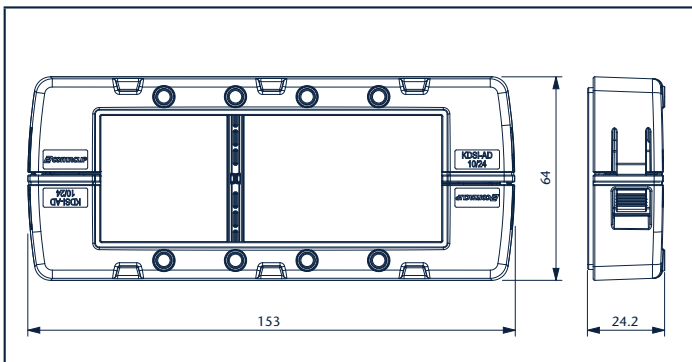
**Torque for the frame's mounting screw: 3 Nm** | **Screw for usage: ISO 4762 / DIN 912**

### KDSI-SR 6/10

| Dimensional diagram | Mounting cut-out |
| --- | --- |
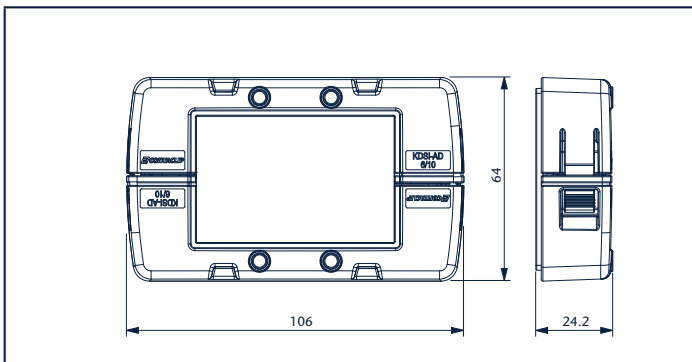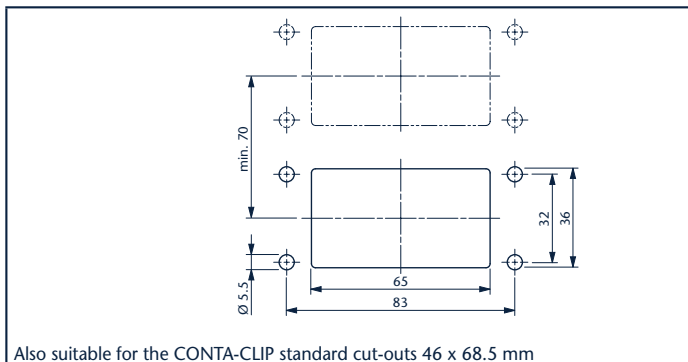


Also suitable for the CONTA-CLIP standard cut-outs 46 x 68.5 mm

**Torque for the frame's mounting screw: 3 Nm** | **Screw for usage: ISO 4762 / DIN 912**

### KDSI-SR 8/16

| Dimensional diagram | Mounting cut-out |
| --- | --- |
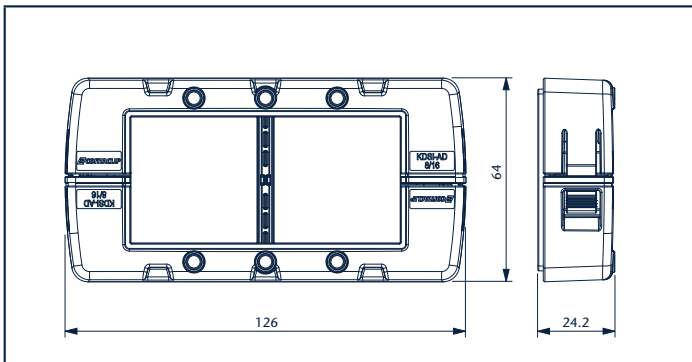


Also suitable for the CONTA-CLIP standard cut-outs 46 x 91 mm

**Torque for the frame's mounting screw: 3 Nm** | **Screw for usage: ISO 4762 / DIN 912**

### KDSI-SR 10/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
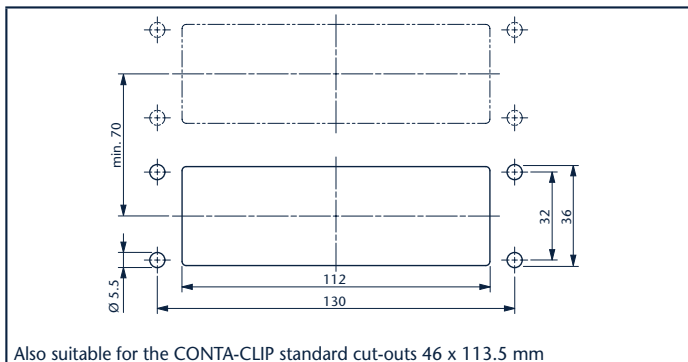


Also suitable for the CONTA-CLIP standard cut-outs 46 x 113.5 mm

**Torque for the frame's mounting screw: 3 Nm** | **Screw for usage: ISO 4762 / DIN 912**

**Dynamic Measurement & Control Solutions**     **www.dynamicrep.com**     **sales@dynamicrep.com**     **408-780-9190**

# Notes

# KDS-SR
# Modular cable entry system

A revolutionary cable entry systems:
Fast. Safe. Turning cables inside out!
The **KDS-SR** cable entry system is a cable management solution
for electrical cabinets, housings and machines that features se-
cure seals and strain relief for pre-assembled and non-assembled
cables – with or without connectors. This saves you time and
provides you with maximum versatility.



## Your advantages

- Easily assembled from the inside
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done
  quickly and easily
- Integrated strain relief
- High-density assemblies
- Protection: IP66

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# The basic components of the modular system

**Frames. Inlays. Seals. The modular design – 3 basic components – provides more versatility, variability and variety.**

### 1. Frame
Made from a single mould, the one-piece frame is quick and easy to assemble. It is made of sturdy, glass-fibre reinforced plastic. The foamed gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

### 2 Inlays
The click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the seal being used. An audible "click" confirms a correct installation. So you can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

### 3. Seals
The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

## Your advantages:
**More versatility and safety**

The seals can be removed by pressing from the outside inwards. Changes, retrofits, servicing or the readjustment of the cable lengths can be made at any time without dismantling the frame. Unwanted manipulations from the outside can be prevented by using an optional inner locking frame.

# KDS-SR
# Modular cable entry system

## An overview of your advantages

**Attaching the frame**
The one-piece frame can be easily
and quickly attached to the wall.

**Quick inside-outwards assembly for
easier servicing work**
The frame does not need to be disas-
sembled if your requirements change
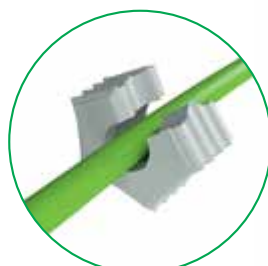or if you're carrying out service work.

**Captive gasket**
The foamed-in frame gasket elimi-
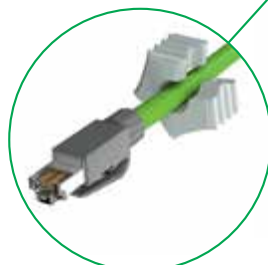nates the risk of incorrect assembly
(forgotten gasket) and speeds up the
assembly process.

**Smart separation of the seals**
The wave-cut profile makes them
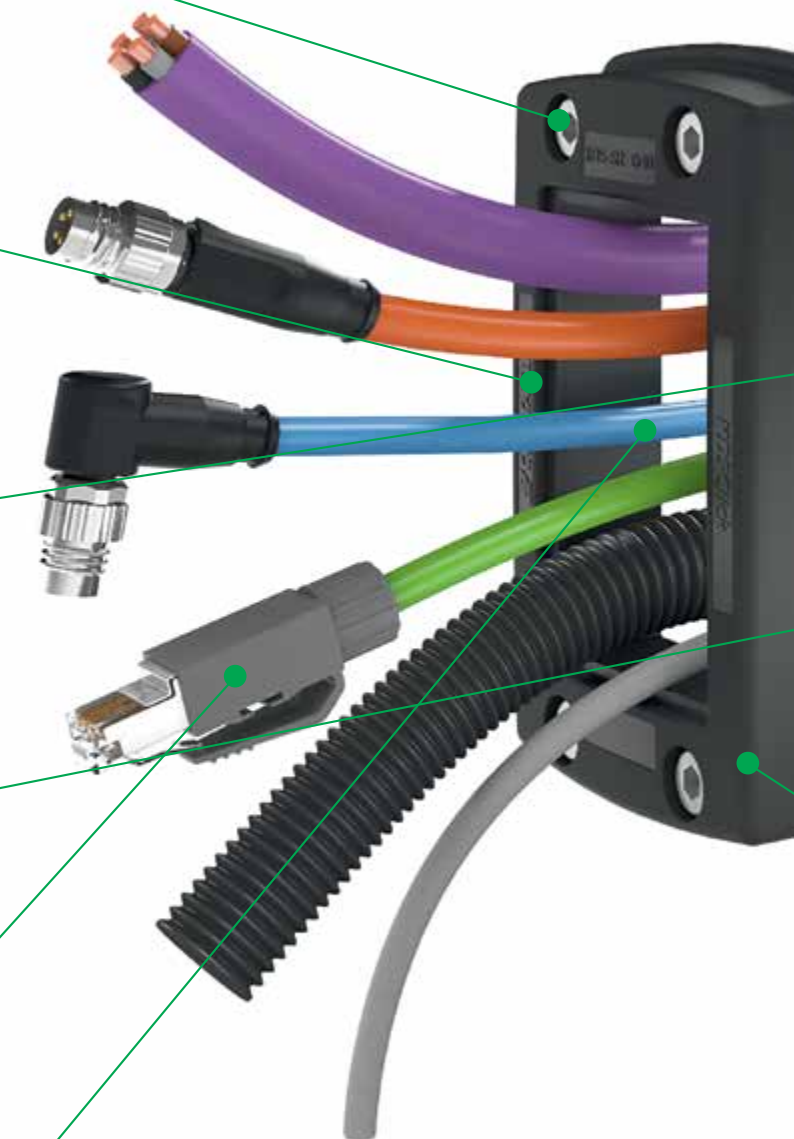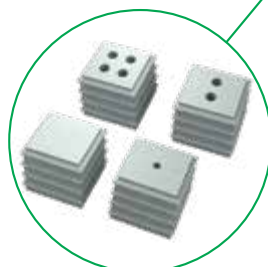easy to install and ensures a perfect
fit around the cables.

**No loss of guarantee: assembled
cables**
No need to disassemble and recon-
nect connectors, so manufacturer's
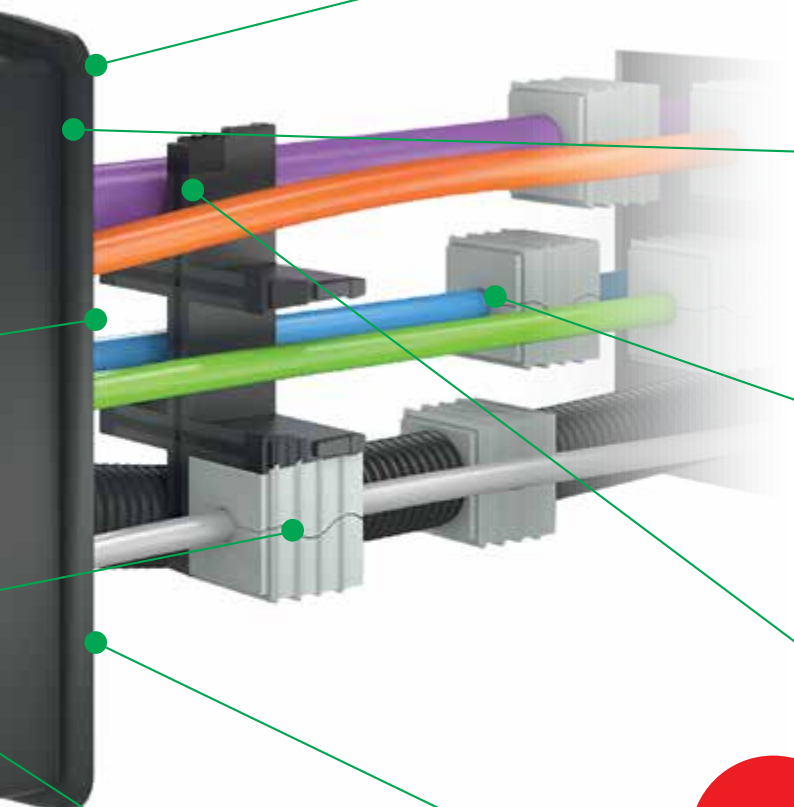warranty is not voided.

**Versatile, high-density assemblies
are possible**
1-way, 2-way, 3-way and 4-way seals
and dummy plugs provide you with
excellent versatility for cable manage-
ment.

**Dynamic Measurement & Control Solutions**       www.dynamicrep.com       sales@dynamicrep.com       408-780-9190

# KDS CLICK

by CONTA-CLIP

**Outstanding versatility with optimized warehousing**
The frames, inlays and seals can be combined in many ways – ensuring you many versatile configuration options.
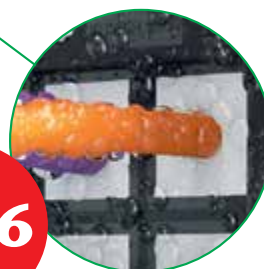
**Safe and quick installation with feedback**
An audible "click" confirms that the inlay has been properly installed in the frame.
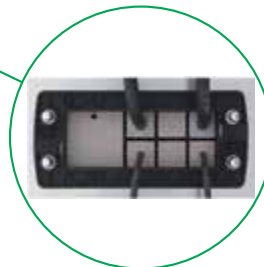
Click

**Integrated strain relief**
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

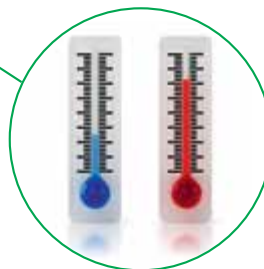**Outstanding IP66 seal**
Multi-resistant, tapered seals feature inner and outer sealing gills.

IP66

**Inner locking frame**
The optional locking frame ensures that the seals cannot be pushed out without using tools.

**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone, suitable for many different applications.

IP66

UL TYPE Rating **12**

UL TYPE* Rating **4x**

ECOLAB certified

RoHS compliant

Made in Germany

CAD

DNV-GL Approved Products

*   4x is for indoor use only

# KDS-SR
# Modular cable entry system

| Frames and inlays | KDS-SR 1-4 | KDS-SR 6/10 | KDS-SR 8/16 | KDS-SR 10/24 |
|---|---|---|---|---|
|  |  |  |  |  |
| **Diagram** | Page 30 | Page 30 | Page 30 | Page 30 |
| **Type** | **KDS-SR 1-4 BK** | **KDS-SR 6/10 BK** | **KDS-SR 8/16 BK** | **KDS-SR 10/24 BK** |
| *Cat. no.*                          Qty. | *28506.4*                1 | *28500.4*                1 | *28502.4*                1 | *28504.4*                1 |
| **Description** | Screw frame | Screw frame | Screw frame | Screw frame |
| **Type / Set** | **KDS-Set 1-4 BK** | **KDS-Set 6/10 BK** | **KDS-Set 8/16 BK** | **KDS-Set 10/24 BK** |
| *Cat. no.*                          Qty. | *28602.4*                1 | *28603.4*                1 | *28604.4*                1 | *28605.4*                1 |
| **Description** | Set consists of:<br>1 x KDS-SR 1-4 BK,<br>1 x KDS-Inlay 4 BK | Set consists of:<br>1 x KDS-SR 6/10 BK,<br>1 x KDS-Inlay 2 BK,<br>1 x KDS-Inlay 6 BK | Set consists of:<br>1 x KDS-SR 8/16 BK,<br>1 x KDS-Inlay 1 BK,<br>2 x KDS-Inlay 4 BK | Set consists of:<br>1 x KDS-Inlay 4 BK,<br>1 x KDS-Inlay 6 BK |
| **Accessories** | | | | |
| **Inlay** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** | **KDS-Inlay 1 BK** |
| *Cat. no.*                          Qty. | *28516.4*                5 | *28516.4*                5 | *28516.4*                5 | *28516.4*                5 |
| **Description** | For separating vertically | For separating vertically | For separating vertically | For separating vertically |
| **Inlay** | | **KDS-Inlay 2 BK** | | **KDS-Inlay 2 BK** |
| *Cat. no.*                          Qty. | | *28517.4*                5 | | *28517.4*                5 |
| **Description** | | T-shape | | T-shape for large  small |
| **Inlay** | **KDS-Inlay 4 BK** | | **KDS-Inlay 4 BK** | **KDS-Inlay 4 BK** |
| *Cat. no.*                          Qty. | *28518.4*                5 | | *28518.4*                5 | *28518.4*                5 |
| **Description** | for 4-way splits | | for 4-way splits | for 4-way splits |
| **Inlay** | | **KDS-Inlay 6 BK** | | **KDS-Inlay 6 BK** |
| *Cat. no.*                          Qty. | | *28519.4*                5 | | *28519.4*                5 |
| **Description** | | for 6-way splits | | for 6-way splits |
| **Inner locking frame (optional)** | **KDS-IVR 1-4 BK** | **KDS-IVR 6/10 BK** | **KDS-IVR 8/16 BK** | **KDS-IVR 10/24 BK** |
| *Cat. no.*                          Qty. | *28507.4*              10 | *28501.4*              10 | *28503.4*              10 | *28505.4*              10 |
| **Sheet-metal hole punch** | **BL KDS-SR 1-4** | **BL KDS-SR 6/10** | **BL KDS-SR 8/16** | **BL KDS-SR 10/24** |
| *Cat. no.*                          Qty. | *Page 92* | *Page 92* | *Page 92* | *Page 92* |
| **Description** | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points | For sheet steel up to 2 mm; also for marking drilling hole points |
| **Actuating tool** | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| *Cat. no.*                          Qty. | *28622.0*                1 | *28622.0*                1 | *28622.0*                1 | *28622.0*                1 |
| **Seals** | | | | |
| **small** | **KDS-DE** | **KDS-DE** | **KDS-DE** | **KDS-DE** |
| *Cat. no.*                          Qty. | *Pages 56/57*          10 | *Pages 56/57*          10 | *Pages 56/57*          10 | *Pages 56/57*          10 |
| **large** | **KDS-DEG** | **KDS-DEG** | **KDS-DEG** | **KDS-DEG** |
| *Cat. no.*                          Qty. | *Pages 56/57*          10 | *Pages 56/57*          10 | *Pages 56/57*          10 | *Pages 56/57*          10 |
| **KDS-DES** | **KDS-DES** | **KDS-DES** | **KDS-DES** | **KDS-DES** |
| *Cat. no.*                          Qty. | *Pages 58/59*          10 | *Pages 58/59*          10 | *Pages 58/59*          10 | *Pages 58/59*          10 |
| **Screw plugs Mounting screws** | **KDS-VS-SR BK** | **KDS-VS-SR BK** | **KDS-VS-SR BK** | **KDS-VS-SR BK** |
| *Cat. no.*                          Qty. | *28779.4*            100 | *28779.4*            100 | *28779.4*            100 | *28779.4*            100 |

UL  IP66  UL TYPE Rating 12  UL TYPE* Rating 4x

ECOLAB certified  RoHS compliant  Made in Germany  CAD  DNV-GL Approved Products

*   4x is for indoor use only

## Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
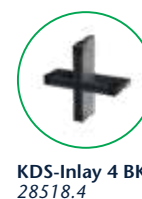- Protection: IP66

# KDS-SR
# Combination options

## Combination options with KDS-SR 1-4



**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 1 BK**
*28516.4*

## Combination options with KDS-SR 6/10

**KDS-Inlay 6 BK**
*28519.4*

**KDS-Inlay 2 BK**
*28517.4*

**KDS-Inlay 1 BK**
*28516.4*

## Combination options with KDS-SR 8/16

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 2 BK**
*28517.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 1 BK**
*28516.4*

## Combination options with KDS-SR 10/24

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 6 BK**
*28519.4*

**KDS-Inlay 6 BK**
*28519.4*

**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 2 BK**
*28517.4*

# KDS-FP
# Flange plates

The new versatile solution for managing cables: The **KDS-FP** flange plate provides machine manufacturers with a very cost-effective, convenient feed-through solution. It can be used to adapt housings and electrical cabinets to fit your updated requirements at any time, and can also considerably simplify your warehousing. You no longer have to stock electrical cabinets or distributors with different configurations of assembled cable and cable outlets. Instead, you can uniformly prepare your products with the flange plate and then adapt them at any time to your specific cabling or tubing requirements. Your advantage is that you save money by requiring fewer variants.

**IP66**

## Your advantages

- Lower costs with increased variability due to standardized opening dimensions
- Guarantee retained for assembled cables
- Versatile, high-density assemblies are possible
- Outstanding IP66 seal
- Integrated strain relief
- Outstanding versatility with optimized warehousing

# The basic components of the modular system

**Flange plate. Inlays. Seals. The modular design – 3 basic components – provides more versatility, variability and variety.**

## 1. Flange plate

The flange plate is available in the versions **KDS-FP** 2x10/24 (up to 20 feed-through openings) or the **KDS-FP** 3x10/24 (for up to 20 or 30 openings). Uniform housing cut-outs of 131 mm x 110 mm or 131 mm x 161 mm are used for installation. By screwing the flange plate on the outside of the cabinet, the break-out is completely sealed according to IP66. On the continuous closed plates, there are two or three cover segments with pre-determined breaking points; these can be pushed out (without tools) which then opens up a 110 mm x 40 mm feed-through opening. The click-in KDSClick frame inlays can be used to subdivide this opening in up to ten appropriately sized frame openings.

## 2 Inlays

The click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the seal being used. An audible "click" confirms a correct installation. So you can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

## 3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

# KDS-FP
# Flange plates

## An overview of your advantages

**Flange plate is easy to install**
The one-piece flange plate can be easily and quickly attached to the wall.

**Captive gasket**
The foamed-in frame gasket eliminates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.
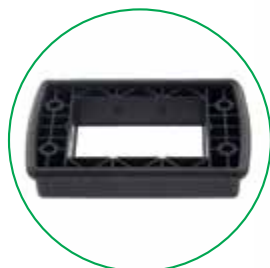
**Variability**
Can be extended to max. 30 openings, without the use of tools or further machining.

**No loss of guarantee: assembled cables**
No need to disassemble and reconnect connectors, so manufacturer's warranty is not voided.
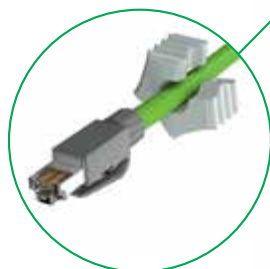
**Versatile, high-density assemblies are possible**
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

**Accessories**
Locking mechanism can be installed without tools; this provides additional strain relief in direction of cabinet interior.

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# KDS CLICK
by CONTA-CLIP
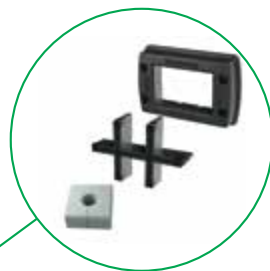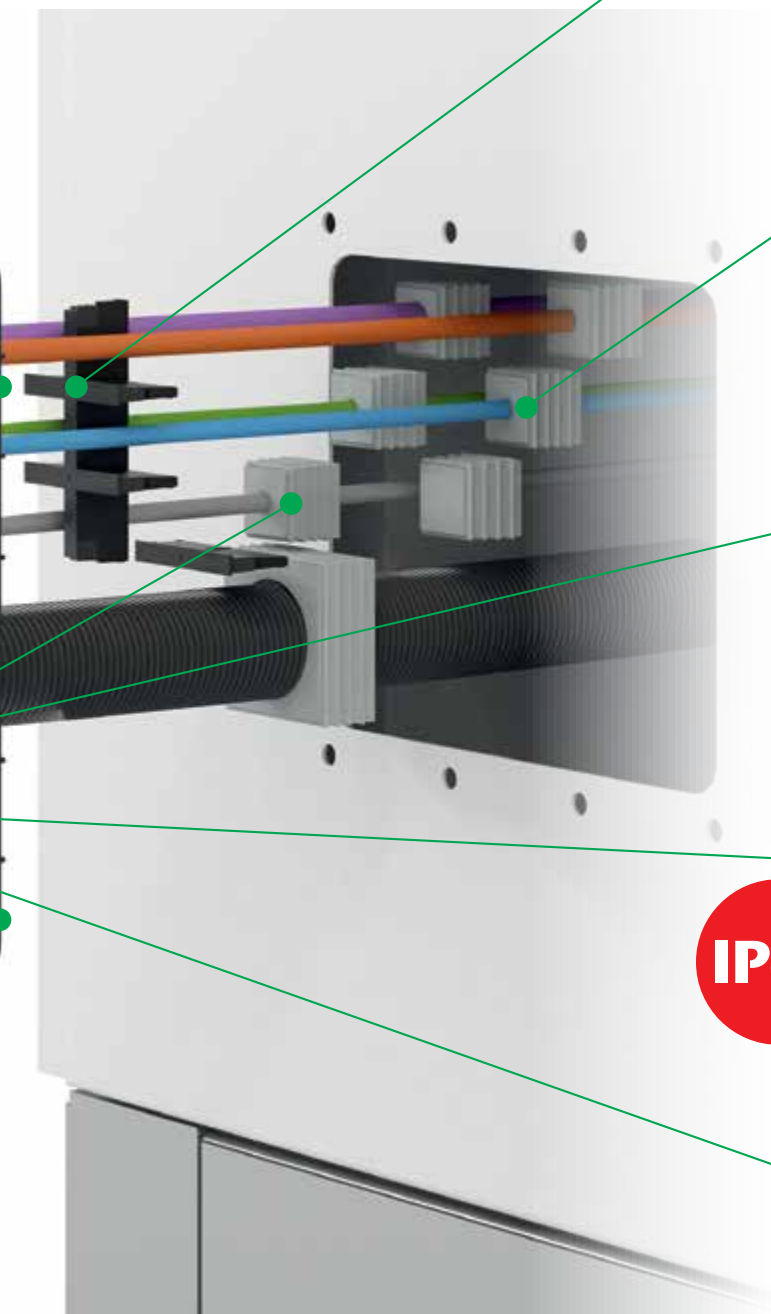
**Outstanding versatility with optimized warehousing**
The flange plates, inlays and seals can be combined in many ways – ensuring you many versatile configuration options.

**Safe and quick installation with feedback**
An audible "click" confirms that the inlay has been properly installed in the frame.

Click

**Integrated strain relief**
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

**Outstanding IP66 seal**
Multi-resistant, tapered seals feature inner and outer sealing gills.

IP66

**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone; suitable for many different applications.

IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x

ECOLAB certified | RoHS compliant | Made in Germany | CAD

\* 4x is for indoor use only

# KDS-FP
# Flange plates

| Flange plates and accessories | | KDS-FP 2x10/24 | |
|---|---|---|---|
|  | |  | |
| **Diagram** | | Page 31 | |
| **Type** | | **KDS-FP 2x10/24 BK** | |
| *Cat. no.* | Qty. | *28660.4* | 1 |
| **Description** | | Flange plate | |
| **Accessories** | | | |
| **Inlay** | | **KDS-Inlay 1 BK** | |
| *Cat. no.* | Qty. | *28516.4* | 5 |
| **Description** | | For separating vertically | |
| **Inlay** | | **KDS-Inlay 2 BK** | |
| *Cat. no.* | Qty. | *28517.4* | 5 |
| **Description** | | **T-shape for large  small** | |
| **Inlay** | | **KDS-Inlay 4 BK** | |
| *Cat. no.* | Qty. | *28518.4* | 5 |
| **Description** | | for 4-way splits | |
| **Inlay** | | **KDS-Inlay 6 BK** | |
| *Cat. no.* | Qty. | *28519.4* | 5 |
| **Description** | | for 6-way splits | |
| **Inner lock** | | **KDS-FP-IVR OG** | |
| *Cat. no.* | Qty. | *28664.3* | 20 |
| **Inner cover UL** | | **KDS-FP-AD/UL YE** | |
| *Cat. no.* | Qty. | *28665.8* | 10 |
| **Actuating tool** | | **KDS BW 1** | |
| *Cat. no.* | Qty. | *28622.0* | 1 |

UL

**IP66**

**UL TYPE**
Rating
**12**

**UL TYPE\***
Rating
**4x**

ECOLAB
certified

**RoHS**
compliant

**Made in**
**Germany**

CAD

\*   4x is for indoor use only

| Flange plates and accessories | | KDS-FP 3x10/24 BK | |
|---|---|---|---|
|  | |  | |
| **Diagram** | | Page 31 | |
| **Type** | | **KDS-FP 3x10/24 BK** | |
| *Cat. no.* | Qty. | *28661.4* | 1 |
| **Description** | | Flange plate | |
| **Accessories** | | | |
| **Inlay** | | **KDS-Inlay 1 BK** | |
| *Cat. no.* | Qty. | *28516.4* | 5 |
| **Description** | | For separating vertically | |
| **Inlay** | | **KDS-Inlay 2 BK** | |
| *Cat. no.* | Qty. | *28517.4* | 5 |
| **Description** | | **T-shape for large  small** | |
| **Inlay** | | **KDS-Inlay 4 BK** | |
| *Cat. no.* | Qty. | *28518.4* | 5 |
| **Description** | | for 4-way splits | |
| **Inlay** | | **KDS-Inlay 6 BK** | |
| *Cat. no.* | Qty. | *28519.4* | 5 |
| **Description** | | for 6-way splits | |
| **Inner lock** | | **KDS-FP-IVR OG** | |
| *Cat. no.* | Qty. | *28664.3* | 20 |
| **Inner cover UL** | | **KDS-FP-AD/UL YE** | |
| *Cat. no.* | Qty. | *28665.8* | 10 |
| **Actuating tool** | | **KDS BW 1** | |
| *Cat. no.* | Qty. | *28622.0* | 1 |

# KDS-FP
# Combination options

**Combination option 1**



**KDS-Inlay 4 BK**
*28518.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 6 BK**
*28519.4*

---

**Combination option 2**



**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 6 BK**
*28519.4*

**Combination option 3**



**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 6 BK**
*28519.4*

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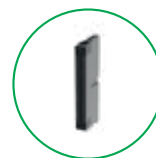
**Combination option 4**



**KDS-Inlay 1 BK**
*28516.4*

**KDS-Inlay 2 BK**
*28517.4*

Each of the two or three 10-frame openings can be configured with the appropriate inlays to match a wide variety of individual customer requirements.

## Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

# KDS-SR
## Dimensional diagrams / Mounting cut-outs for the modular cable entry system

### KDS-SR 1-4

| Dimensional diagram | Mounting cut-out |
|---|---|
| | |
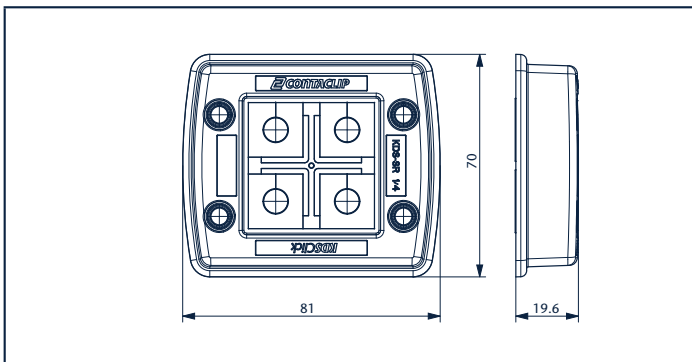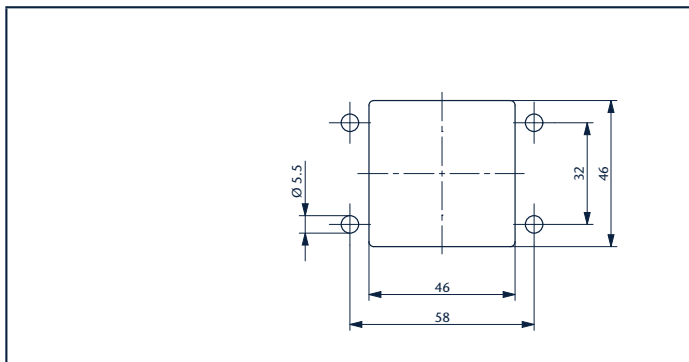


Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

### KDS-SR 6/10

| Dimensional diagram | Mounting cut-out |
|---|---|
| | |
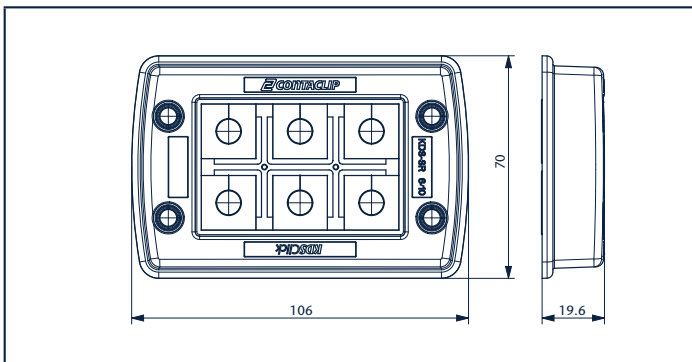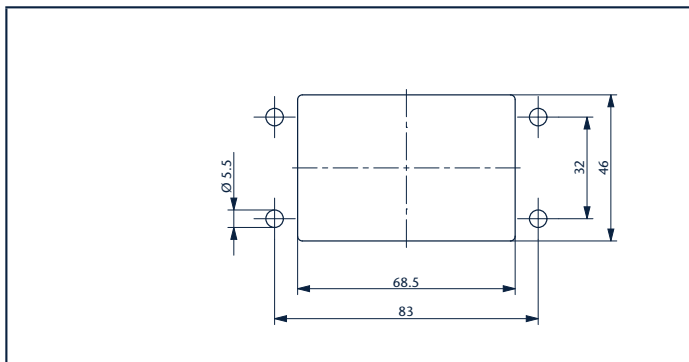


Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

### KDS-SR 8/16

| Dimensional diagram | Mounting cut-out |
|---|---|
| | |
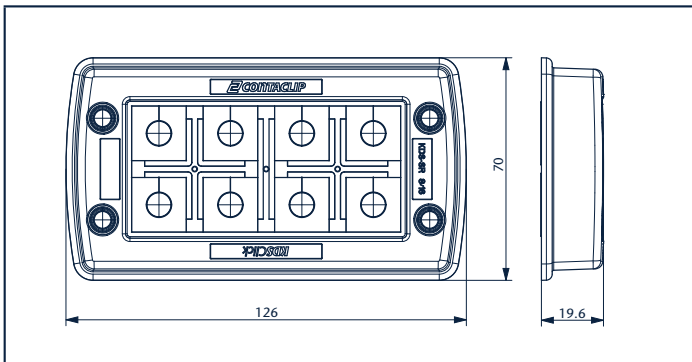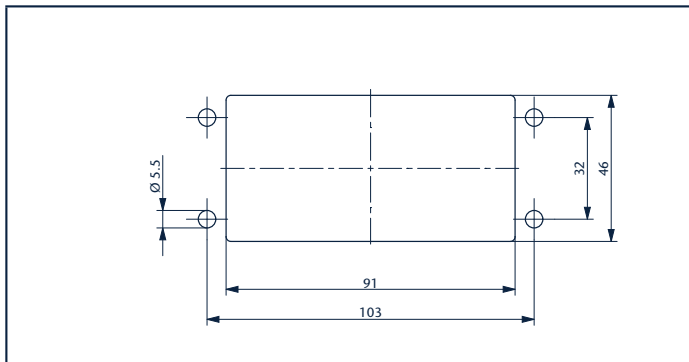


Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

### KDS-SR 10/24

| Dimensional diagram | Mounting cut-out |
|---|---|
| | |
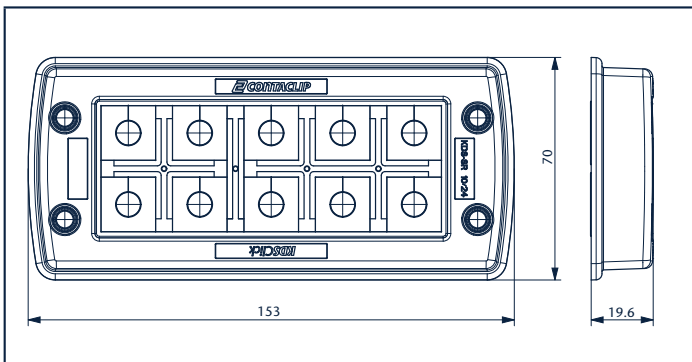


Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

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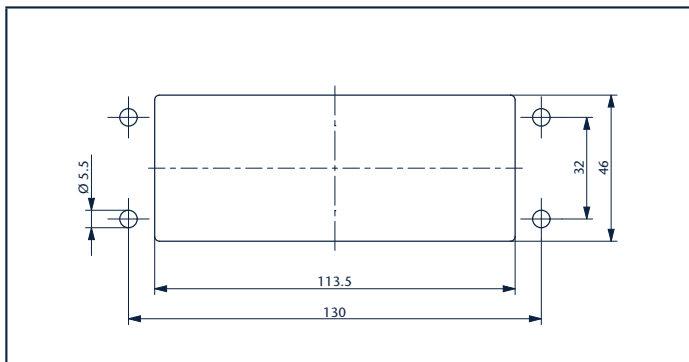
# KDS-FP
## Dimensional diagrams / Mounting cut-outs for the flange plate

### KDS-FP 2x10/24
**Dimensional diagram**   **Mounting cut-out**
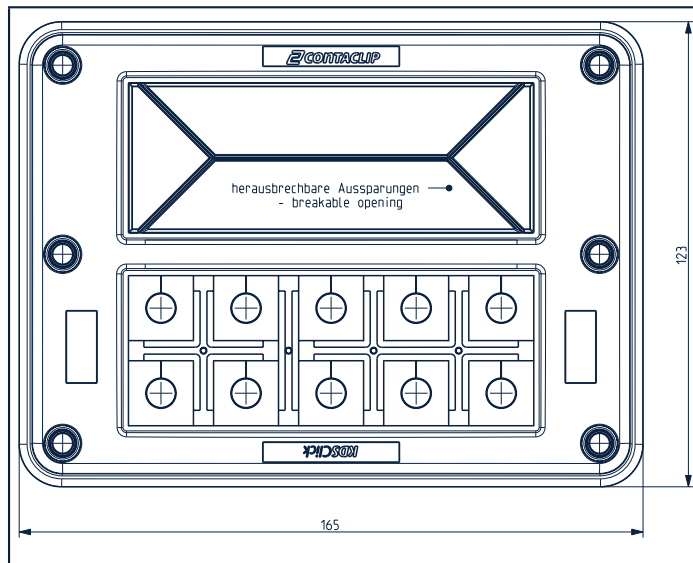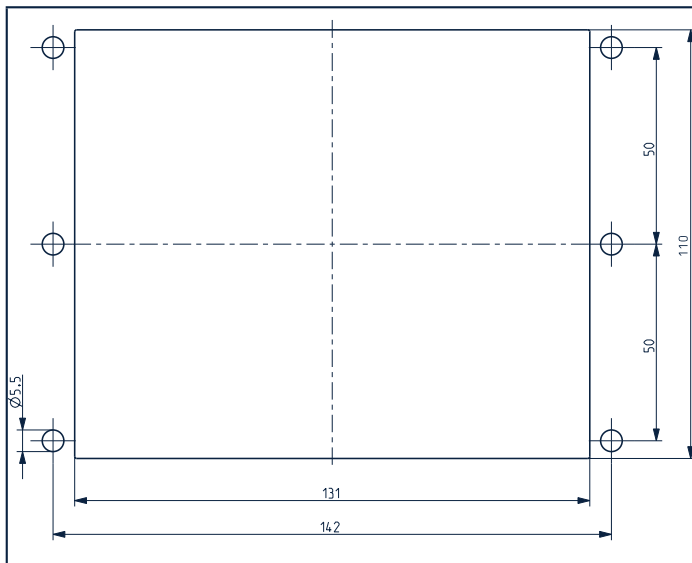


**Torque for the frame's mounting screw: 3 Nm**   **Screw for usage: ISO 4762 / DIN 912**

### KDS-FP 3x10/24
**Dimensional diagram**   **Mounting cut-out**
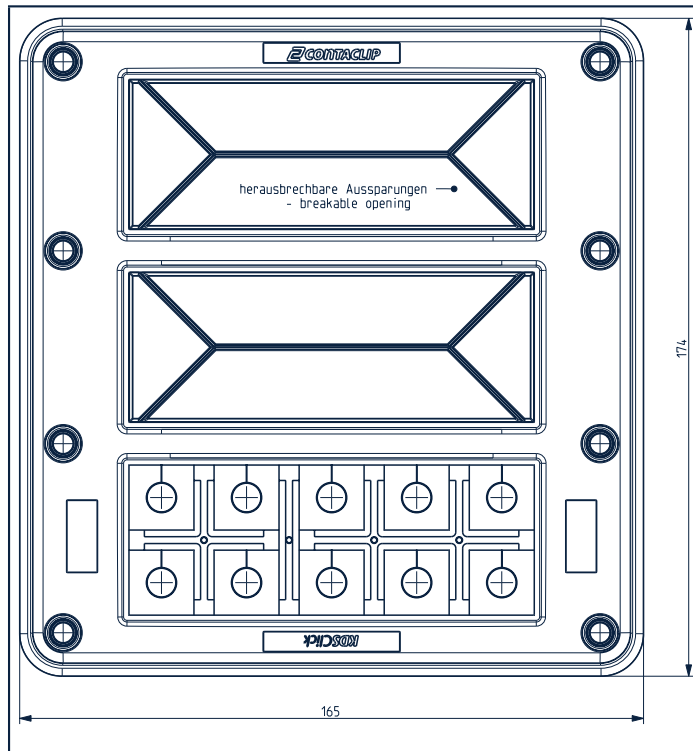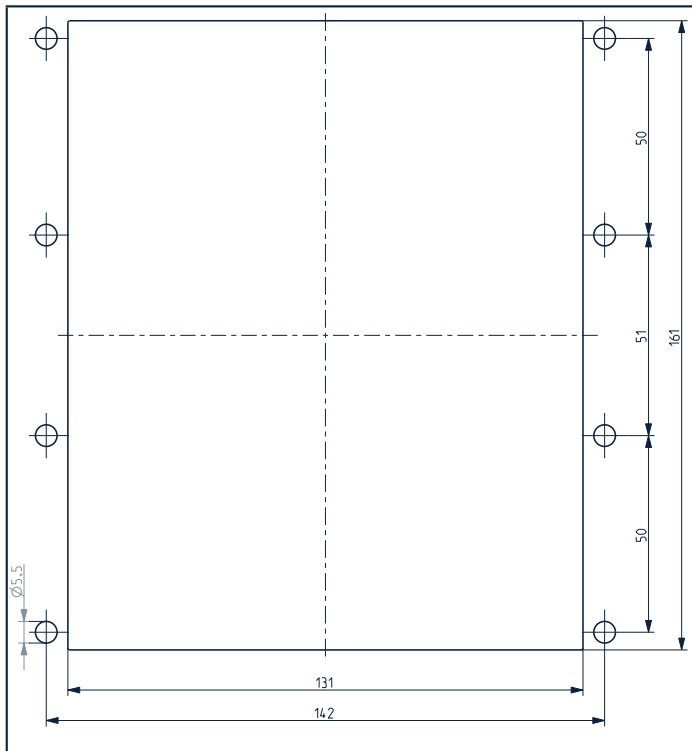


**Torque for the frame's mounting screw: 3 Nm**   **Screw for usage: ISO 4762 / DIN 912**

# KDS-R
# Round cable entries

Overcoming the frame split: Round solutions for your requirements. The round **KDS-R** cable entries for metric cut-outs from M20 to M63 are designed for cables with and without plugs. In case of maintenance or retrofitting with assembled cable harnesses, cables with diameters from 2 mm to 35 mm can be quickly and safely inserted into the electrical cabinets or housings and sealed according to IP66. The modular system ensures quick and easy assembly in three steps. A reliable seal and absolute secure fit is also provided by the slitted, tapered seals with a wave-cut profile, which, after the cables are routed through the cable entry, are placed around the cables and then pressed into the round cable entry.

After that, the separable thread and locking adapter on the electrical cabinet exterior is easily screwed together with the round frame. The separable locknuts that are mounted on the interior of the locking elements ensure safe and secure attachment. This system can be used with a wall thickness up to 6 mm.

**IP66**

## Your advantages

- Assembled cables can be guided through
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies
- Can be installed on standard metric cut-outs
- Protection: IP66

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# The basic components of the modular system

### 1. Round cable entries

The round cable entry **KDS-R** ensures quick and secure assembly of hoses and electrical cables in switchboxes and electrical cabinets. The gaskets (TPE) integrated into the cable entry also ensure an outstanding seal in accordance with IP66 on painted and rough surfaces.

### 2 Inlays

The click-in inlays enable needs-based dimensioning of the frame opening, corresponding to the seal being used.
So you can variably configure cable entries to match various requirements (for cables, lines, tubing, pneumatic and hydraulic lines).

### 3. Thread and locking adapter

The two-piece thread and locking adapter **KDS-RGA** for versatile installation is screwed together with the round cable entry. It locks with a form fit with the cable entry and therefore ensures that the seals and inlays are mechanically secured. The threads located on the electrical cabinet or housing interior are available respectively in six common diameters for metric cut-outs from M20 – M32 and M40 – M63.

### 4. Separable locknuts

The individual parts of the locknut **KDS-GM** can be snapped together quickly and easily via the dovetail guide and then can be mounted on the round cable entry.

### 5. Seals

The tapered shape of the **KDS-DE / KDS-DEG** seal enables user-friendly pressing-in of the seal, reliable sealing of the gaps and ensures a strain relief in accordance with DIN EN 62444. To attach them, the seals are pressed from the inside out into the openings of the cable entries. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

# KDS-R
# Round cable entries

## An overview of your advantages

### Mounting
The round cable entry is installed without tools.

### Variability
Up to 16 cables can be fed through thanks to the compatibility of the KDS-R 40-63 with the KDS inlay 4.

### No loss of guarantee: assembled cables
No need to disassemble and reconnect connectors, so the manufacturer's warranty is not voided.

### Versatile, high-density assemblies are possible
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

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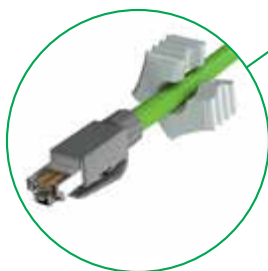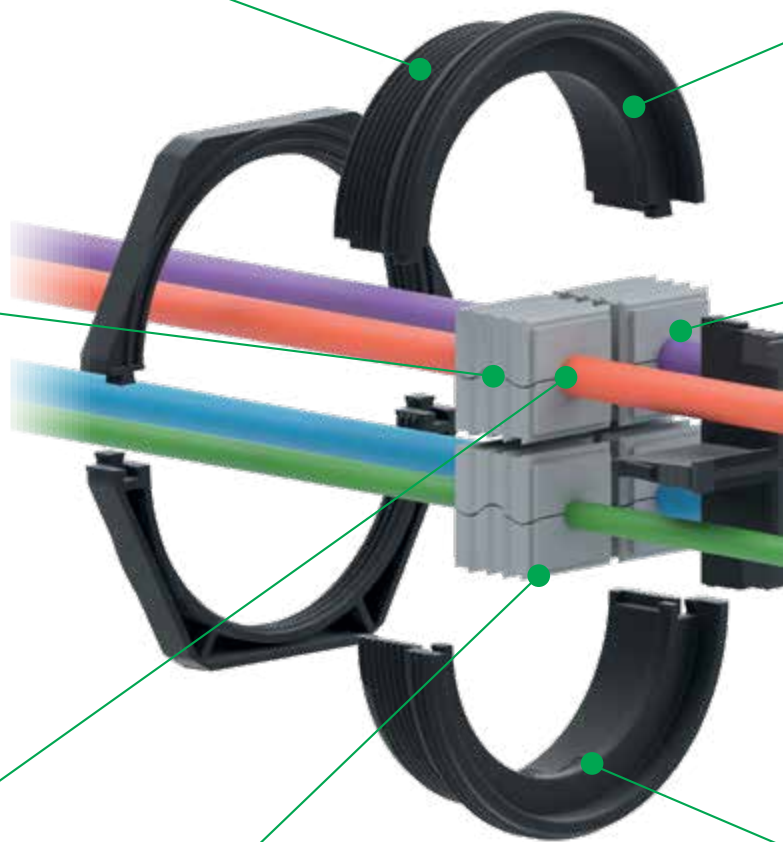
**Two round cable entries for six metric break-through sizes**
Thanks to six different thread and locking adapters and two external frame sizes, the metric break-through sizes M20 to M32 and M40 to M63 can be equipped with the modular **KSR**-**R** system. Assembly is carried out from the outside inwards.

**IP66**

**Outstanding IP66 seal**
Multi-resistant, tapered seals feature inner and outer sealing gills.

**Integrated strain relief**
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.
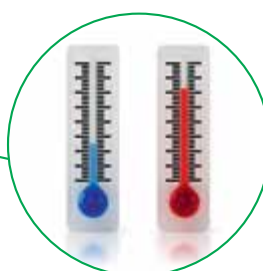
**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone; suitable for many different applications.

**Facility availability**
Maintenance work is possible during operation due to the separation of the thread adapter and the locknut.

**UL TYPE** Rating **12**

**UL TYPE** Rating **4x**

**ECOLAB** certified

**RoHS** compliant

**Made in Germany**

CAD

* 4x is for indoor use only

# KDS-R
# Round cable entries

| Round cable entries | | KDS-R 20-32 | KDS-RGA M20/25/32 | KDS-GM 20/25/32 |
|---|---|---|---|---|
| | | | | |
| **Description** | | Round cable entry | Thread and locking adapter | Separable locknut |
| **Type / colour** | | **KDS-R 20-32 BK** | **KDS-RGA M20 BK** | **KDS-GM M20 BK** |
| *Cat. no.* | Qty. | *28770.4*     10 | *28771.4*     5 | *28616.4*     10 |
| **Type / colour** | | | **KDS-RGA M25 BK** | **KDS-GM M25 BK** |
| *Cat. no.* | Qty. | | *28772.4*     5 | *28617.4*     10 |
| **Type / colour** | | | **KDS-RGA M32 BK** | **KDS-GM M32 BK** |
| *Cat. no.* | Qty. | | *28773.4*     5 | *28618.4*     10 |
| **Cable diameter** | | | | |
| KDS-DE | | 1-13 mm | 1-13 mm | 1-13 mm |
| KDS-DEG | | | | |
| **Accessories** | | | | |
| **Thread adapters** | | **KDS-RGA M20 BK** | | |
| *Cat. no.* | Qty. | *28771.4*     5 | | |
| **Thread adapters** | | **KDS-RGA M25 BK** | | |
| *Cat. no.* | Qty. | *28772.4*     5 | | |
| **Thread adapters** | | **KDS-RGA M32 BK** | | |
| *Cat. no.* | Qty. | *28773.4*     5 | | |
| **Locknut** | | | **KDS-GM M20 BK** | |
| *Cat. no.* | Qty. | | *28616.4*     10 | |
| **Locknut** | | | **KDS-GM M25 BK** | |
| *Cat. no.* | Qty. | | *28617.4*     10 | |
| **Locknut** | | | **KDS-GM M32 BK** | |
| *Cat. no.* | Qty. | | *28618.4*     10 | |
| **Inlay** | | | | |
| *Cat. no.* | Qty. | | | |
| **Inlay** | | | | |
| *Cat. no.* | Qty. | | | |
| **Inlay** | | | | |
| *Cat. no.* | Qty. | | | |
| **Actuating tool** (refer to page 86) | | **KDS BW 1** | | |
| *Cat. no.* | Qty. | *28622.0*     1 | | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M20** | |
| *Cat. no.* | Qty. | | *28746.0*     1 | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M25** | |
| *Cat. no.* | Qty. | | *28747.0*     1 | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M32** | |
| *Cat. no.* | Qty. | | *28748.0*     1 | |

UL TYPE Rating **12**

UL TYPE* Rating **4x**

ECOLAB certified

RoHS compliant

Made in Germany

CAD

\* 4x is for indoor use only

| Round cable entries | | KDS-R 40-63 BK | KDS-RGA M40/50/63 | KDS-GM 40/50/63 |
|---|---|---|---|---|
| | |  |  |  |



| Description | | Round cable entry | Thread and locking adapter | Separable locknut |
|---|---|---|---|---|
| **Type / colour** | | **KDS-R 40-63 BK** | **KDS-RGA M40 BK** | **KDS-GM M40 BK** |
| *Cat. no.* | **Qty.** | *28774.4*  **4** | *28775.4*  **5** | *28619.4*  **10** |
| **Type / colour** | | | **KDS-RGA M50 BK** | **KDS-GM M50 BK** |
| *Cat. no.* | **Qty.** | | *28776.4*  **5** | *28620.4*  **10** |
| **Type / colour** | | | **KDS-RGA M63 BK** | **KDS-GM M63 BK** |
| *Cat. no.* | **Qty.** | | *28777.4*  **5** | *28621.4*  **10** |
| **Cable diameter** | | | | |
| KDS-DE | | 1-13 mm | 1-13 mm | 1-13 mm |
| KDS-DEG | | 14-35 mm | 14-35 mm | 14-35 mm |
| **Accessories** | | | | |
| **Thread adapters** | | **KDS-RGA M40 BK** | | |
| *Cat. no.* | **Qty.** | *28775.4*  **5** | | |
| **Thread adapters** | | **KDS-RGA M50 BK** | | |
| *Cat. no.* | **Qty.** | *28776.4*  **5** | | |
| **Thread adapters** | | **KDS-RGA M63 BK** | | |
| *Cat. no.* | **Qty.** | *28777.4*  **5** | | |
| **Locknut** | | | **KDS-GM M40 BK** | |
| *Cat. no.* | **Qty.** | | *28619.4*  **10** | |
| **Locknut** | | | **KDS-GM M50 BK** | |
| *Cat. no.* | **Qty.** | | *28620.4*  **10** | |
| **Locknut** | | | **KDS-GM M63 BK** | |
| *Cat. no.* | **Qty.** | | *28621.4*  **10** | |
| **Inlay** | | **KDS-Inlay 1 BK** | | |
| *Cat. no.* | **Qty.** | *28516.4*  **5** | | |
| **Inlay** | | **KDS-Inlay 2 BK** | | |
| *Cat. no.* | **Qty.** | *28517.4*  **5** | | |
| **Inlay** | | **KDS-Inlay 4 BK** | | |
| *Cat. no.* | **Qty.** | *28518.4*  **5** | | |
| **Actuating tool** (refer to page 86) | | **KDS BW 1** | | |
| *Cat. no.* | **Qty.** | *28622.0*  **1** | | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M40** | |
| *Cat. no.* | **Qty.** | | *28749.0*  **1** | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M50** | |
| *Cat. no.* | **Qty.** | | *28750.0*  **1** | |
| **Sheet-metal hole punch** (refer to page 92) | | | **BL KDS-KV M63** | |
| *Cat. no.* | **Qty.** | | *28751.0*  **1** | |

# Features

- Material: polyamide PA 6.6, glass-fibre reinforced | Gasket: TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

# Compatibility matrix for round cable entry systems KDS-R

## Seals

### Grey small

| Type | Cat. no. |
|---|---|
| KDS-DE/B GR | 28561.6 |
| KDS-DE 1.5-2 GR | 28562.6 |
| KDS-DE 2-3 GR | 28563.6 |
| KDS-DE 3-4 GR | 28564.6 |
| KDS-DE 4-5 GR | 28565.6 |
| KDS-DE 5-6 GR | 28566.6 |
| KDS-DE 6-7 GR | 28567.6 |
| KDS-DE 7-8 GR | 28568.6 |
| KDS-DE 8-9 GR | 28569.6 |
| KDS-DE 9-10 GR | 28570.6 |
| KDS-DE 10-11 GR | 28571.6 |
| KDS-DE 11-12 GR | 28572.6 |
| KDS-DE 12-13 GR | 28573.6 |
| KDS-DE 13-14 GR | 28574.6 |
| KDS-DE 14-15 GR | 28609.6 |
| KDS-DE 15-16 GR | 28671.6 |
| KDS-DE 2 x 4-5 GR | 28595.6 |
| KDS-DE 2 x 5-6 GR | 28596.6 |
| KDS-DE 2 x 6.5 GR | 28607.6 |
| KDS-DE 4 x 2-3 GR | 28597.6 |
| KDS-DE 4 x 3-4 GR | 28598.6 |
| KDS-DE 4 x 4.5 GR | 28606.6 |
| KDS-DE 4 x 5 GR | 28673.6 |
| KDS-DE 4 x 6 GR | 28762.6 |
| KDS-DE/1 x ASI GR | 28599.6 |
| KDS-DE/2 x ASI GR | 28600.6 |

### Black small

| Type | Cat. no. |
|---|---|
| KDS-DE/B BK | 28520.4 |
| KDS-DE 1.5-2 BK | 28521.4 |
| KDS-DE 2-3 BK | 28522.4 |
| KDS-DE 3-4 BK | 28523.4 |
| KDS-DE 4-5 BK | 28524.4 |
| KDS-DE 5-6 BK | 28525.4 |
| KDS-DE 6-7 BK | 28526.4 |
| KDS-DE 7-8 BK | 28527.4 |
| KDS-DE 8-9 BK | 28528.4 |
| KDS-DE 9-10 BK | 28529.4 |
| KDS-DE 10-11 BK | 28530.4 |
| KDS-DE 11-12 BK | 28531.4 |
| KDS-DE 12-13 BK | 28532.4 |
| KDS-DE 13-14 BK | 28533.4 |
| KDS-DE 14-15 BK | 28608.4 |
| KDS-DE 15-16 BK | 28670.4 |
| KDS-DE 2 x 4-5 BK | 28555.4 |
| KDS-DE 2 x 5-6 BK | 28556.4 |
| KDS-DE 2 x 6.5 BK | 28682.4 |
| KDS-DE 4 x 2-3 BK | 28557.4 |
| KDS-DE 4 x 3-4 BK | 28558.4 |
| KDS-DE 4 x 4.5 BK | 28681.4 |
| KDS-DE 4 x 5 BK | 28672.4 |
| KDS-DE 4 x 6 BK | 28763.4 |
| KDS-DE/1 x ASI BK | 28559.4 |
| KDS-DE/2 x ASI BK | 28560.4 |
| KDS-DE/K 2-1 BK | 28553.4 |

### Grey large

| Type | Cat. no. |
|---|---|
| KDS-DEG/B GR | 28575.6 |
| KDS-DEG 14-15 GR | 28576.6 |
| KDS-DEG 15-16 GR | 28577.6 |
| KDS-DEG 16-17 GR | 28578.6 |
| KDS-DEG 17-18 GR | 28579.6 |
| KDS-DEG 18-19 GR | 28580.6 |
| KDS-DEG 19-20 GR | 28581.6 |
| KDS-DEG 20-21 GR | 28582.6 |
| KDS-DEG 21-22 GR | 28583.6 |
| KDS-DEG 22-23 GR | 28584.6 |
| KDS-DEG 23-24 GR | 28585.6 |
| KDS-DEG 24-25 GR | 28586.6 |
| KDS-DEG 25-26 GR | 28587.6 |
| KDS-DEG 26-27 GR | 28588.6 |
| KDS-DEG 27-28 GR | 28589.6 |
| KDS-DEG 28-29 GR | 28590.6 |
| KDS-DEG 29-30 GR | 28591.6 |
| KDS-DEG 30-31 GR | 28592.6 |
| KDS-DEG 31-32 GR | 28593.6 |
| KDS-DEG 32-33 GR | 28594.6 |
| KDS-DEG 33-34 GR | 28731.6 |
| KDS-DEG 34-35 GR | 28733.6 |

### Black large

| Type | Cat. no. |
|---|---|
| KDS-DEG/B BK | 28534.4 |
| KDS-DEG 14-15 BK | 28535.4 |
| KDS-DEG 15-16 BK | 28536.4 |
| KDS-DEG 16-17 BK | 28537.4 |
| KDS-DEG 17-18 BK | 28538.4 |
| KDS-DEG 18-19 BK | 28539.4 |
| KDS-DEG 19-20 BK | 28540.4 |
| KDS-DEG 20-21 BK | 28541.4 |
| KDS-DEG 21-22 BK | 28542.4 |
| KDS-DEG 22-23 BK | 28543.4 |
| KDS-DEG 23-24 BK | 28544.4 |
| KDS-DEG 24-25 BK | 28545.4 |
| KDS-DEG 25-26 BK | 28546.4 |
| KDS-DEG 26-27 BK | 28547.4 |
| KDS-DEG 27-28 BK | 28548.4 |
| KDS-DEG 28-29 BK | 28549.4 |
| KDS-DEG 29-30 BK | 28550.4 |
| KDS-DEG 30-31 BK | 28551.4 |
| KDS-DEG 31-32 BK | 28552.4 |
| KDS-DEG 32-33 BK | 28601.4 |
| KDS-DEG 33-34 BK | 28730.4 |
| KDS-DEG 34-35 BK | 28732.4 |



Small seals

Large seals

DES seals
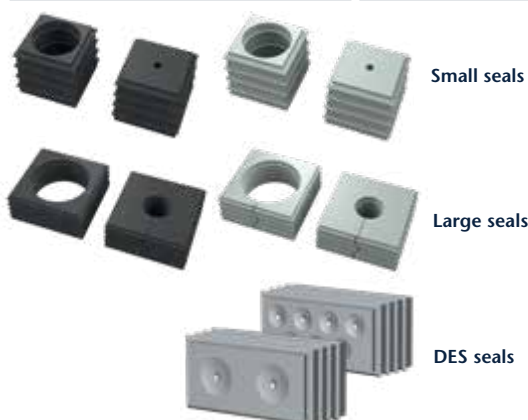
### KDS-DES

| Type | Cat. no. |
|---|---|
| KDS-DES 2X10.5 GR | 28800.6 |
| KDS-DES 3X9.5 GR | 28801.6 |
| KDS-DES 3X8.5 GR | 28802.6 |
| KDS-DES 4X7.5 GR | 28803.6 |
| KDS-DES 7X6.5 GR | 28804.6 |
| KDS-DES 8X5.5 GR | 28805.6 |
| KDS-DES 8X4.5 GR | 28806.6 |
| KDS-DE-FB1/A GR | 28713.6 |
| KDS-DE-FB1/B GR | 28714.6 |
| KDS-DE-FB1/C GR | 28715.6 |
| KDS-DE-FB1/D GR | 28716.6 |
| KDS-DE-FB1/E GR | 28717.6 |
| KDS-DE-FB1/F GR | 28718.6 |

An overview of all sealing elements can be found on pages 56–59.

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## Round cable entries KDS-R

| KDS-R 20 – 32 | | | KDS-R 40 – 63 | | |
|---|---|---|---|---|---|
| KDS-R M20 | KDS-R M25 | KDS-R M32 | KDS-R M40 | KDS-R M50 | KDS-R M63 |
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# KDS-KV
# Separable cable glands

All-round "cornered" solutions for your requirements! All-round "cornered" solutions for your requirements! For metric cut-outs from M20 to M63, CONTA-CLIP provides the **KDS-KV** separable cable glands for cables with or without attached plugs. In case of maintenance or retrofitting with assembled cable harnesses, cables with diameters from 2 mm to 35 mm can be quickly and safely inserted into the electrical cabinets or housings and sealed according to IP66. This separable system ensures quick and simple installation. The slitted seal has a wave-cut profile that ensures a reliable seal and a totally secure attach-

ment. The seal is first placed around the cable and then inserted in one of the two halves of the cable gland. After inserting the seals, the two halves of the cable gland are simply snapped together. A locknut (which can also be separated) on the inside of the cabinet ensures a safe and secure attachment.



## Your advantages

- Assembled cables can be guided through
- Guarantee retained for assembled cables
- Retrofitting and servicing can be done quickly and easily
- High-density assemblies
- Can be installed on standard metric cut-outs
- Includes a separable hexagon nut

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# The basic components of the modular system

### 1. Split cable glands

Consisting of two half-shells, the cable gland is quick and easy to install. It is made of dimensionally stable, glass-fibre reinforced plastic. The integrated gasket guarantees an optimal seal with IP66 protection, even on painted or rough surfaces.

### 2 Separable locknuts

The individual parts of the locknut can be snapped together quickly and easily via the dovetail guide and then mounted with the gland.

### 3. Seals

The conical shape of the sealing elements allows them to be easily pressed in. This also reliably seals the gaps and provides static strain relief in accordance with DIN EN 62444. The seals are installed by pressing them from the inside outwards into the openings of the previously installed inlays. Their wave-cut profile makes them easy to install and ensures a perfect fit around the cables. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

# KDS-KV
# Separable cable glands

## An overview of your advantages

**Mounting**
No tools are required to mount the cable gland.

**Variability**
Up to 4 cables can be fed through using just one cable gland.
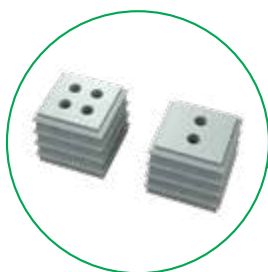
**No loss of guarantee: assembled cables**
No need to disassemble and re-connect connectors, so the manufacturer's warranty is not voided.

**Versatile, high-density assemblies are possible**
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

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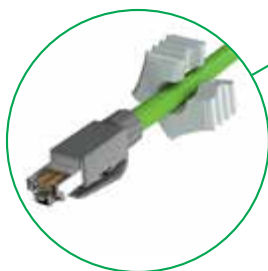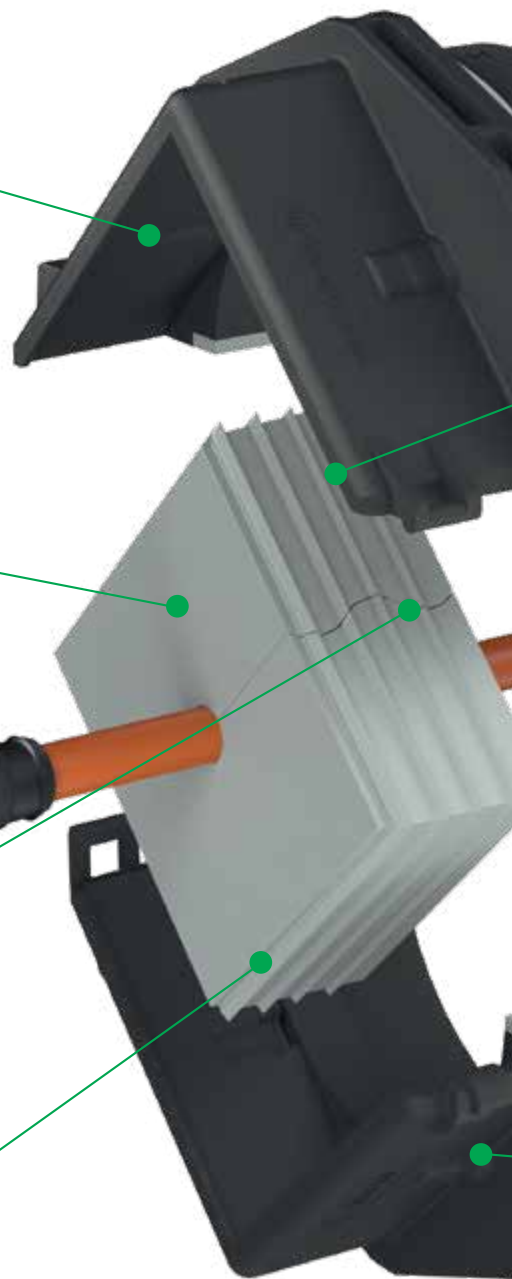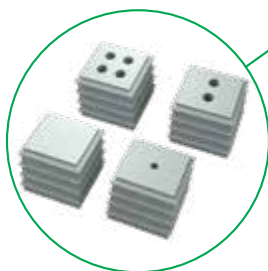
**Outstanding seal**
Multi-resistant, tapered seals feature inner and outer sealing gills.

**Integrated strain relief**
The absolute tight fit of the sealing elements also ensures a static strain relief mechanism for the cables according to DIN EN 62444.

**Facility availability**
Since the cable gland and the lock-nut are separable, servicing can be carried out during operations.

**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone; suitable for many different applications.

# KDS-KV
# Separable cable glands

| Separable cable glands | | KDS-KV M20 | KDS-KV M25 | KDS-KV M32 |
|---|---|---|---|---|
| |  |  |  |  |
| **Diagram** | |  |  |  |
| **Type** | | **KDS-KV M20 BK** | **KDS-KV M25 BK** | **KDS-KV M32 BK** |
| *Cat. no.* | Qty. | *28610.4*    **10** | *28611.4*    **10** | *28612.4*    **10** |
| Description | | Separable cable gland, including separable locknut | Separable cable gland, including separable locknut | Separable cable gland, including separable locknut |
| **Cable diameter, mm** | | | | |
| **KDS-DE** | | 1–13 mm | 1–14 mm | 1–14 mm |
| **Accessories** | | | | |
| **Locknut** | | **KDS-GM 20 BK** | **KDS-GM 25 BK** | **KDS-GM 32 BK** |
| *Cat. no.* | Qty. | *28616.4*    **10** | *28617.4*    **10** | *28618.4*    **10** |
| Description | | Separable locknut | Separable locknut | Separable locknut |
| **Seals** | | | | |
| **small** | | **KDS-DE** | **KDS-DE** | **KDS-DE** |
| *Cat. no.* | Qty. | *Pages 56 – 59* | *Pages 56 – 59* | *Pages 56 – 59* |
| **Tightening torque of lock nut, in Nm** | | 4 | 4 | 4 |
| **Combinations** | |  |  |  |
| **Accessories** | | | | |
| **Sheet-metal hole punch** (refer to page 92) | | **BL KDS-KV M20** | **BL KDS-KV M25** | **BL KDS-KV M32** |
| *Cat. no.* | Qty. | *28746.0*    **1** | *28747.0*    **1** | *28748.0*    **1** |

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| Separable cable glands | KDS-KV M40 | KDS-KV M50 | KDS-KV M63 |
|---|---|---|---|
| |  |  |  |
| **Diagram** |  |  |  |
| **Type** | **KDS-KV M40 BK** | **KDS-KV M50 BK** | **KDS-KV M63 BK** |
| *Cat. no.*     **Qty.** | *28613.4*    5 | *28614.4*    5 | *28615.4*    5 |
| **Description** | Separable cable gland, including separable locknut | Separable cable gland, including separable locknut | Separable cable gland, including separable locknut |
| **Cable diameter, mm** | | | |
| **KDS-DE** | 14–33 mm | 14–33 mm | 14–33 mm |
| **Accessories** | | | |
| **Locknut** | **KDS-GM 40 BK** | **KDS-GM 50 BK** | **KDS-GM 63 BK** |
| *Cat. no.*     **Qty.** | *28619.4*    5 | *28620.4*    5 | *28621.4*    5 |
| **Description** | Separable locknut | Separable locknut | Separable locknut |
| **Seals** | | | |
| **small** | **KDS-DEG** | **KDS-DEG** | **KDS-DEG** |
| *Cat. no.*     **Qty.** | *Pages 56 – 59* | *Pages 56 – 59* | *Pages 56 – 59* |
| **Tightening torque of lock nut, in Nm** | 7 | 7 | 7 |
| **Combinations** |  |  |  |
| **Accessories** | | | |
| **Sheet-metal hole punch** (refer to page 92) | **BL KDS-KV M40** | **BL KDS-KV M50** | **BL KDS-KV M63** |
| *Cat. no.*     **Qty.** | *28749.0*    1 | *28750.0*    1 | *28751.0*    1 |

# Features

- Material: polyamide PA 6.6, glass-fibre reinforced | Gasket: TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

# KDS-FB
# Cable entry system for flat cables

Fast. Safe. Turning cables inside out! The **KDS-FB** cable entry system for flat cables provides you with outstanding versatility and saves you time while managing cables, especially for industrial trucks, crane systems and elevator applications. The "fish skin" on the seal mechanically surrounds the inserted flat cable; this ensures outstanding tolerance compensation and IP66 protection.

### Attaching the frame
Made from a single mould, the one-piece frame is quick and easy to as-semble. It is made of sturdy, glass-fibre reinforced plastic.

### Quickly assembled from the inside out
The frame does not need to be disas-sembled if your requirements change or if you're carrying out service work.

### Captive gasket
The moulded-in frame gasket elimi-nates the risk of incorrect assembly (forgotten gasket) and speeds up the assembly process.

### Seals
The seals' conical shape enables them to be easily pressed in so they can seal gaps. To attach them, the seals are pressed from the inside out into the openings. There are currently over 140 different seals that can be used for sealing cables of various diameters and sizes.

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**IP66**

**RoHS** compliant

**Made in Germany**

CAD
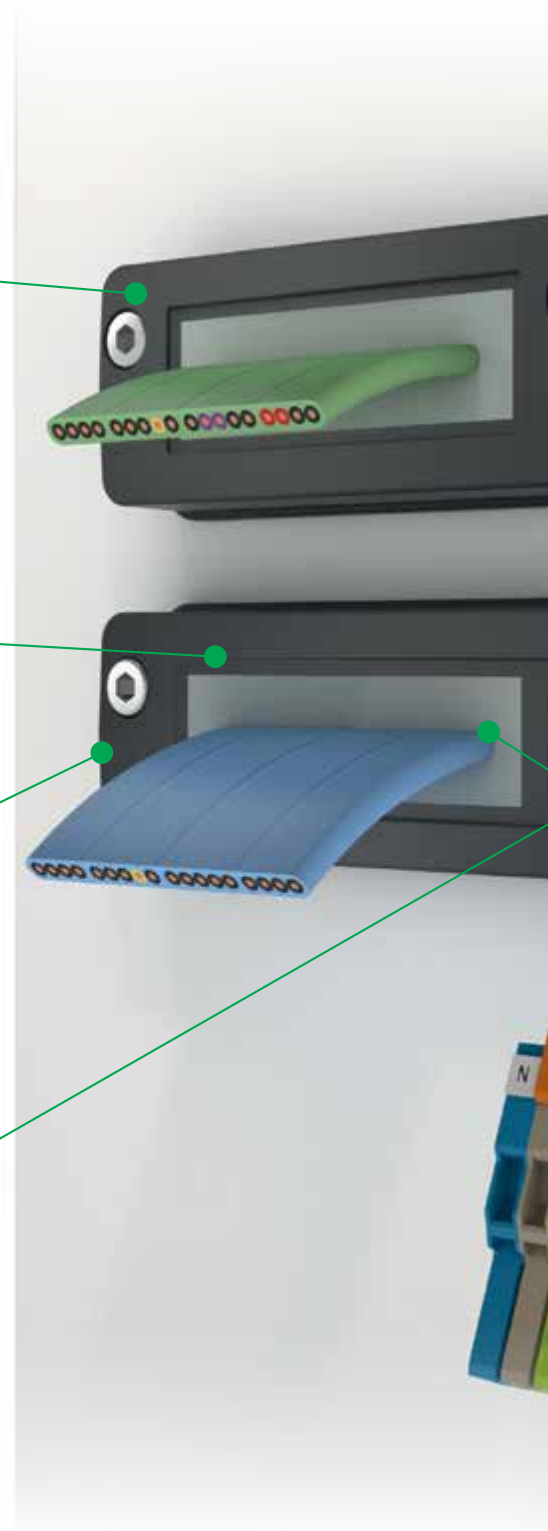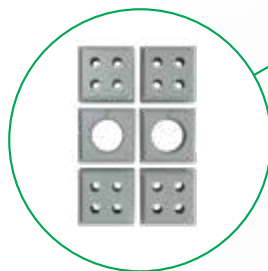
## Your advantages

30 % less time required for new installations because of the one-piece frame. Modifications, retrofits, service work or the readjustment of cable lengths can be made at any time without disassembling the frame, since the seals are released from the outside inwards by simply pressing in.

**Versatile, high-density assemblies are possible**
1-way, 2-way, 3-way and 4-way seals and dummy plugs provide you with excellent versatility for cable management.

**IP66**

**Outstanding IP66 seal**
Multi-resistant, tapered seals feature inner and outer sealing gills.

**Can be used from -40 °C to +120 °C**
Materials contain no halogen or silicone, suitable for many different applications.

**Fish skin**
The "fish skin" mechanically surrounds the inserted flat cable; this ensures outstanding tolerance compensation and IP66 protection.

# KDS-FB
# Cable entry system for flat cables

| Frame | KDS-SR-FB1/A | KDS-SR-FB2/A | KDS-SR-FB2/B |
|---|---|---|---|
| |  |  |  |
| Diagram | Page 42 | Page 42 | Page 42 |
| **Type / colour** | **KDS-SR-FB1/A BK** | **KDS-SR-FB2/A BK** | **KDS-SR-FB2/B BK** |
| *Cat. no.* **Qty.** | *28700.4* **10** | *28701.4* **10** | *28702.4* **10** |
| **Seals** (refer to pages 56 – 57, or pages 52 – 53) | | | |
| KDS-DE … | | | 1 x |
| KDS-DE-FB1 | 1 x | | 1 x |
| KDS-DE-FB2 | | 1 x | |
| KDS-DE-FB3 | | | |
| KDS-DE-FB4 | | | |
| **Accessories** | | | |
| **Actuating tool** (refer to page 86) | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| *Cat. no.* **Qty.** | *28622.0* **1** | *28622.0* **1** | *28622.0* **1** |
| **Sheet-metal hole punch** (refer to page 92) | **BL-VA KDS-FB1** | **BL-VA KDS-FB2** | **BL-VA KDS-FB2** |
| *Cat. no.* **Qty.** | *28729.0* **1** | *28741.0* **1** | *28741.0* **1** |

| Frame | KDS-SR-FB4/A | KDS-SR-FB4/B | KDS-SR-FB4/C |
|---|---|---|---|
| |  |  |  |
| Diagram | Page 43 | Page 43 | Page 43 |
| **Type / colour** | **KDS-SR-FB4/A BK** | **KDS-SR-FB4/B BK** | **KDS-SR-FB4/C BK** |
| *Cat. no.* **Qty.** | *28707.4* **10** | *28708.4* **10** | *28709.4* **10** |
| **Seals** (refer to pages 56 – 57, or pages 52 – 53) | | | |
| KDS-DE … | | 2 x | 1 x |
| KDS-DE-FB1 | | | 2 x |
| KDS-DE-FB2 | | 1 x | |
| KDS-DE-FB3 | | | |
| KDS-DE-FB4 | 1 x | | |
| **Accessories** | | | |
| **Actuating tool** (refer to page 86) | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| *Cat. no.* **Qty.** | *28622.0* **1** | *28622.0* **1** | *28622.0* **1** |
| **Sheet-metal hole punch** (refer to page 92) | **BL-VA KDS-FB4** | **BL-VA KDS-FB4** | **BL-VA KDS-FB4** |
| *Cat. no.* **Qty.** | *28743.0* **1** | *28743.0* **1** | *28743.0* **1** |

## Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66
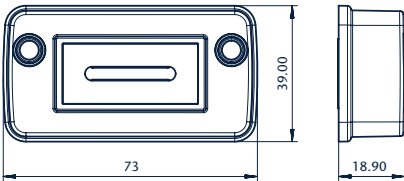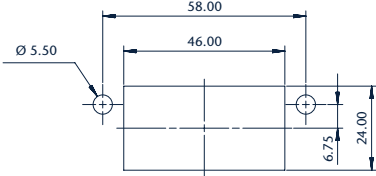
| KDS-SR-FB3/A | KDS-SR-FB3/B | KDS-SR-FB3/C | KDS-SR-FB3/D |
|---|---|---|---|
|  |  |  |  |
| Page 43 | Page 43 | Page 43 | Page 43 |
| **KDS-SR-FB3/A BK** | **KDS-SR-FB3/B BK** | **KDS-SR-FB3/C BK** | **KDS-SR-FB3/D BK** |
| *28703.4* **10** | *28704.4* **10** | *28705.4* **10** | *28706.4* **10** |
| | 1 x | | 2 x |
| | | 2 x | 1 x |
| | 1 x | | |
| 1 x | | | |
| **KDS BW 1** | **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| *28622.0* **1** | *28622.0* **1** | *28622.0* **1** | *28622.0* **1** |
| **BL-VA KDS-FB3** | **BL-VA KDS-FB3** | **BL-VA KDS-FB3** | **BL-VA KDS-FB3** |
| *28742.0* **1** | *28742.0* **1** | *28742.0* **1** | *28742.0* **1** |

| KDS-SR-FB4/D | KDS-SR-FB4/E | KDS-SR-FB4/F |
|---|---|---|
|  |  |  |
| Page 43 | Page 43 | Page 43 |
| **KDS-SR-FB4/D BK** | **KDS-SR-FB4/E BK** | **KDS-SR-FB4/F BK** |
| *28710.4* **10** | *28711.4* **10** | *28712.4* **10** |
| 3 x | | 5 x |
| 1 x | 1 x | |
| | 1 x | |
| **KDS BW 1** | **KDS BW 1** | **KDS BW 1** |
| *28622.0* **1** | *28622.0* **1** | *28622.0* **1** |
| **BL-VA KDS-FB4** | **BL-VA KDS-FB4** | **BL-VA KDS-FB4** |
| *28743.0* **1** | *28743.0* **1** | *28743.0* **1** |

**IP66**  **RoHS** compliant  **Made in Germany**  CAD
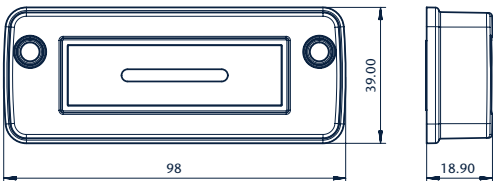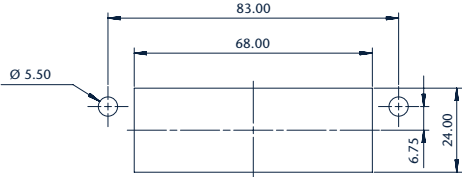
# KDS-FB
## Dimensional diagrams / Mounting cut-outs

### KDS-SR-FB1
| Dimensional diagram | Mounting cut-out |
| --- | --- |



Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

### KDS-SR-FB2
| Dimensional diagram | Mounting cut-out |
| --- | --- |



Torque for the frame's mounting screw: 3 Nm

Screw for usage: ISO 4762 / DIN 912

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## KDS-SR-FB3
**Dimensional diagram** | **Mounting cut-out**

103.00
89.00
Ø 5.50
39.00
120
18.90
6.75
24.00
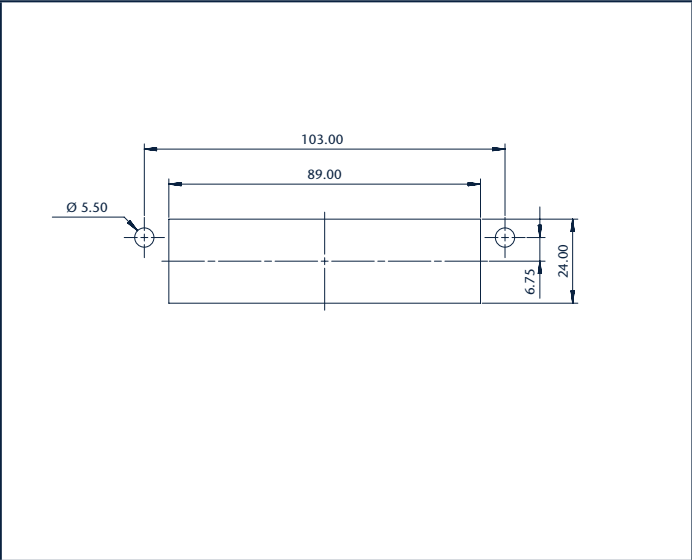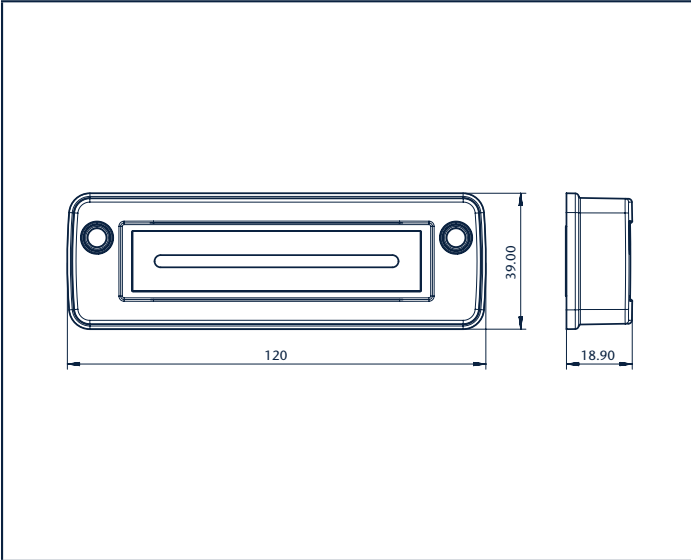
Torque for the frame's mounting screw: 3 Nm | Screw for usage: ISO 4762 / DIN 912

## KDS-SR-FB4
**Dimensional diagram** | **Mounting cut-out**

130.00
111.00
Ø 5.50
39.00
147
18.90
6.75
24.00
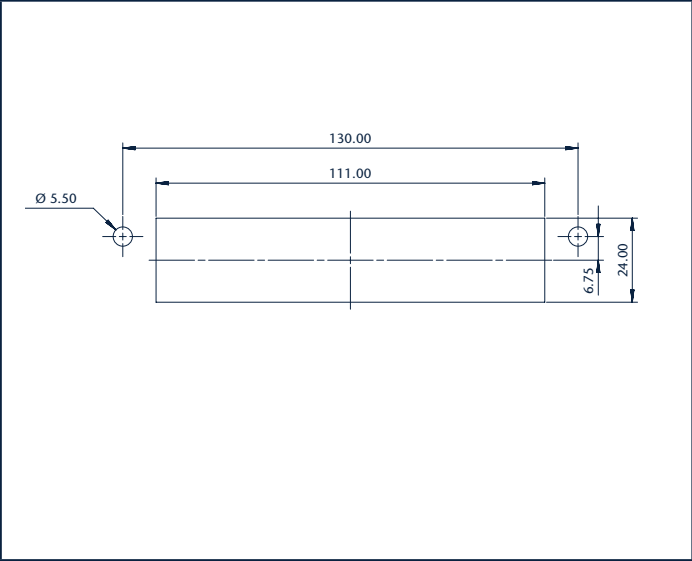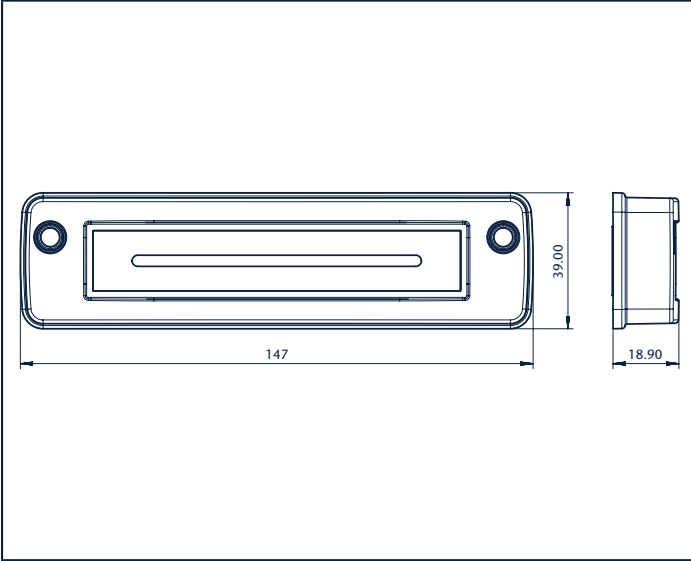
Torque for the frame's mounting screw: 3 Nm | Screw for usage: ISO 4762 / DIN 912

# Seals for KDS-FB

| Seals | KDS-DE-FB1/A | KDS-DE-FB1/B | KDS-DE-FB1/C |
|---|---|---|---|
| |  | | |
| Type / colour | KDS-DE-FB1/A GR | KDS-DE-FB1/B GR | KDS-DE-FB1/C GR |
| Cat. no.　　　　Qty. | 28713.6　5 | 28714.6　5 | 28715.6　5 |
| Sealing area | | Width: 19 – 23 mm<br>Thickness: 5.5 – 6 mm | Width: 28 – 33 mm<br>Thickness: 5.5 – 6 mm |

| Seals | KDS-DE-FB2/B | KDS-DE-FB2/C | KDS-DE-FB2/D |
|---|---|---|---|
| Type / colour | KDS-DE-FB2/B GR | KDS-DE-FB2/C GR | KDS-DE-FB2/D GR |
| Cat. no.　　　　Qty. | 28720.6　5 | 28721.6　5 | 28722.6　5 |
| Sealing area | Width: 32.5 – 38 mm<br>Thickness: 5 – 5.5 mm | Width: 45 – 50.5 mm<br>Thickness: 6 – 6.5 mm | Width: 47 – 52 mm<br>Thickness: 9.5 – 10 mm |

| Seals | KDS-DE-FB3/C | KDS-DE-FB1/A | KDS-DE-FB4/B |
|---|---|---|---|
| Type / colour | KDS-DE-FB3/C GR | KDS-DE-FB4/A GR | KDS-DE-FB4/B GR |
| Cat. no.　　　　Qty. | 28739.6　5 | 28727.6　5 | 28728.6　5 |
| Sealing area | Width: 64 – 69 mm<br>Thickness: 11 – 12 mm | | Width: 85 – 90 mm<br>Thickness: 4.2 – 5.2 mm |

## Features
- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +90 °C (static)
- Halogen-free, silicone-free
- Protection: IP66

## KDS-DE-FB1/D

**KDS-DE-FB1/D GR**

*28716.6*　　　　　**5**
Width: 24 – 30 mm
Thickness: 8.5 – 9 mm

## KDS-DE-FB1/E

**KDS-DE-FB1/E GR**

*28717.6*　　　　　**5**
Width: 19 – 24 mm
Thickness: 6.5 – 7 mm

## KDS-DE-FB1/F

**KDS-DE-FB1/F GR**

*28718.6*　　　　　**5**
Width: 28 – 33 mm
Thickness: 9 – 9.5 mm

## KDS-DE-FB2/A

**KDS-DE-FB2/A GR**

*28719.6*　　　　　**5**

## KDS-DE-FB2/E

**KDS-DE-FB2/E GR**

*28723.6*　　　　　**5**
Width: 38 – 43 mm
Thickness: 12.5 – 13 mm

## KDS-DE-FB2/F

**KDS-DE-FB2/F GR**

*28724.6*　　　　　**5**
Width: 49 – 54 mm
Thickness: 5 – 6 mm

## KDS-DE-FB3/A

**KDS-DE-FB3/A GR**

*28725.6*　　　　　**5**

## KDS-DE-FB3/B

**KDS-DE-FB3/B GR**

*28726.6*　　　　　**5**
Width: 72 – 77 mm
Thickness: 5 – 5.5 mm

## KDS-DE-FB4/C

**KDS-DE-FB4/C GR**

*28740.6*　　　　　**5**
Width: 94 – 99 mm
Thickness: 4.2 – 5.2 mm

**IP66**　　**RoHS** compliant　　**Made in Germany**　　CAD

| Cat. no. | KDS-SR-FB1/A BK 28700.4 | KDS-SR-FB2/A BK 28701.4 | KDS-SR-FB2/B BK 28702.4 | KDS-SR-FB3/A BK 28703.4 | KDS-SR-FB3/B BK 28704.4 | KDS-SR-FB3/C BK 28705.4 |
|---|---|---|---|---|---|---|
| * | | | ● | | ● | |
| KDS-DE-FB1/A GR 28713.6 | ● | | ● | | | ● |
| KDS-DE-FB1/B GR 28714.6 | ● | | ● | | | ● |
| KDS-DE-FB1/C GR 28715.6 | ● | | ● | | | ● |
| KDS-DE-FB1/D GR 28716.6 | ● | | ● | | | ● |
| KDS-DE-FB1/E GR 28717.6 | ● | | ● | | | ● |
| KDS-DE-FB1/F GR 28718.6 | ● | | ● | | | ● |
| KDS-DE-FB2/A GR 28719.6 | | ● | | | ● | |
| KDS-DE-FB2/B GR 28720.6 | | ● | | | ● | |
| KDS-DE-FB2/C GR 28721.6 | | ● | | | ● | |
| KDS-DE-FB2/D GR 28722.6 | | ● | | | ● | |
| KDS-DE-FB2/E GR 28723.6 | | ● | | | ● | |
| KDS-DE-FB2/F GR 28724.6 | | ● | | | ● | |
| KDS-DE-FB3/A GR 28725.6 | | | | ● | | |
| KDS-DE-FB3/B GR 28726.6 | | | | ● | | |
| KDS-DE-FB3/C GR 28739.6 | | | | ● | | |
| KDS-DE-FB4/A GR 28727.6 | | | | | | |
| KDS-DE-FB4/B GR 28728.6 | | | | | | |
| KDS-DE-FB4/C GR 28740.6 | | | | | | |

\* An overview of all seals with the external dimensions 20 x 20 can be found on pages 56 – 57.

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| KDS-SR-FB3/D BK | KDS-SR-FB4/A BK | KDS-SR-FB4/B BK | KDS-SR-FB4/C BK | KDS-SR-FB4/D BK | KDS-SR-FB4/E BK | KDS-SR-FB4/F BK |
|---|---|---|---|---|---|---|
| 28706.4 | 28707.4 | 28708.4 | 28709.4 | 28710.4 | 28711.4 | 28712.4 |
| ● | | ● | ● | ● | | ● |
| ● | | ● | | ● | ● | |
| ● | | ● | | ● | ● | |
| ● | | ● | | ● | ● | |
| ● | | ● | | ● | ● | |
| ● | | ● | | ● | ● | |
| ● | | ● | | ● | ● | |
| | | | ● | | ● | |
| | | | ● | | ● | |
| | | | ● | | ● | |
| | | | ● | | ● | |
| | | | ● | | ● | |
| | | | ● | | ● | |
| | ● | | | | | |
| | ● | | | | | |
| | ● | | | | | |

# Sealing elements KDS systems

| Seals | Grey small | | |
|---|---|---|---|
| | **Type** | **Cat. no.** | **Qty.** | **Max. Ø** |

| Seals | Grey small | | |
|---|---|---|---|
| **Type** | **Cat. no.** | **Qty.** | **Max. Ø** |
| KDS-DE/B GR | 28561.6 | 10 | Blind |
| KDS-DE 1.5 GR | 28694.6 | 10 | 1.5 mm |
| KDS-DE 1.5-2 GR | 28562.6 | 10 | 2 mm |
| KDS-DE 2 GR | 28696.6 | 10 | 2 mm |
| KDS-DE 2-3 GR | 28563.6 | 10 | 3 mm |
| KDS-DE 3 GR | 28698.6 | 10 | 3 mm |
| KDS-DE 3-4 GR | 28564.6 | 10 | 4 mm |
| KDS-DE 4-5 GR | 28565.6 | 10 | 5 mm |
| KDS-DE 5-6 GR | 28566.6 | 10 | 6 mm |
| KDS-DE 6-7 GR | 28567.6 | 10 | 7 mm |
| KDS-DE 7-8 GR | 28568.6 | 10 | 8 mm |
| KDS-DE 8-9 GR | 28569.6 | 10 | 9 mm |
| KDS-DE 9-10 GR | 28570.6 | 10 | 10 mm |
| KDS-DE 10-11 GR | 28571.6 | 10 | 11 mm |
| KDS-DE 11-12 GR | 28572.6 | 10 | 12 mm |
| KDS-DE 12-13 GR | 28573.6 | 10 | 13 mm |
| KDS-DE 13-14 GR | 28574.6 | 10 | 14 mm |
| KDS-DE 14-15 GR | 28609.6 | 10 | 15 mm |
| KDS-DE 15-16 GR | 28671.6 | 10 | 16 mm |

| Seals | Grey large | | |
|---|---|---|---|
| KDS-DEG/B GR | 28575.6 | 10 | Blind |
| KDS-DEG 14-15 GR | 28576.6 | 10 | 15 mm |
| KDS-DEG 15-16 GR | 28577.6 | 10 | 16 mm |
| KDS-DEG 16-17 GR | 28578.6 | 10 | 17 mm |
| KDS-DEG 17-18 GR | 28579.6 | 10 | 18 mm |
| KDS-DEG 18-19 GR | 28580.6 | 10 | 19 mm |
| KDS-DEG 19-20 GR | 28581.6 | 10 | 20 mm |
| KDS-DEG 20-21 GR | 28582.6 | 10 | 21 mm |
| KDS-DEG 21-22 GR | 28583.6 | 10 | 22 mm |
| KDS-DEG 22-23 GR | 28584.6 | 10 | 23 mm |
| KDS-DEG 23-24 GR | 28585.6 | 10 | 24 mm |
| KDS-DEG 24-25 GR | 28586.6 | 10 | 25 mm |
| KDS-DEG 25-26 GR | 28587.6 | 10 | 26 mm |
| KDS-DEG 26-27 GR | 28588.6 | 10 | 27 mm |
| KDS-DEG 27-28 GR | 28589.6 | 10 | 28 mm |
| KDS-DEG 28-29 GR | 28590.6 | 10 | 29 mm |
| KDS-DEG 29-30 GR | 28591.6 | 10 | 30 mm |
| KDS-DEG 30-31 GR | 28592.6 | 10 | 31 mm |
| KDS-DEG 31-32 GR | 28593.6 | 10 | 32 mm |
| KDS-DEG 32-33 GR | 28594.6 | 10 | 33 mm |
| KDS-DEG 33-34 GR | 28731.6 | 10 | 34 mm |
| KDS-DEG 34-35 GR | 28733.6 | 10 | 35 mm |

| Seals with multiple holes | Grey multiple | | |
|---|---|---|---|
| KDS-DE 2x4-5 GR | 28595.6 | 10 | 5 mm |
| KDS-DE 2x5-6 GR | 28596.6 | 10 | 6 mm |
| KDS-DE 2x6.5 GR | 28607.6 | 10 | 6.5 mm |
| KDS-DE 2x7 GR | 28690.6 | 10 | 7 mm |
| KDS-DE 2x8 GR | 28692.6 | 10 | 8 mm |
| KDS-DE 3x5-6 GR | 28688.6 | 10 | 6 mm |
| KDS-DE 4x2-3 GR | 28597.6 | 10 | 3 mm |
| KDS-DE 4x3-4 GR | 28598.6 | 10 | 4 mm |
| KDS-DE 4x4.5 GR | 28606.6 | 10 | 4.5 mm |
| KDS-DE 4x5 GR | 28673.6 | 10 | 5 mm |
| KDS-DE 4x6 GR | 28762.6 | 10 | 6 mm |

| Seals for AS interface cables | Grey | | |
|---|---|---|---|
| KDS-DE/1xASI GR | 28599.6 | 10 | |
| KDS-DE/2xASI GR | 28600.6 | 10 | |

**UL** | **IP66** | **UL TYPE** Rating **12** | **UL TYPE\*** Rating **4x**

**ECOLAB** certified | **RoHS** compliant | Made in **Germany** | CAD | **DNV-GL** Approved Products

\*   4x is for indoor use only

## Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +90 °C (static)
- Halogen-free, silicone-free
- Protection: IP66

## Seals

### Black small

| Type | Cat. no. | Qty. | Max. Ø |
|---|---|---|---|
| KDS-DE/B BK | 28520.4 | 10 | Blind |
| KDS-DE 1.5 BK | 28693.4 | 10 | 1.5 mm |
| KDS-DE 1.5-2 BK | 28521.4 | 10 | 2 mm |
| KDS-DE 2 BK | 28695.4 | 10 | 2 mm |
| KDS-DE 2-3 BK | 28522.4 | 10 | 3 mm |
| KDS-DE 3 BK | 28697.4 | 10 | 3 mm |
| KDS-DE 3-4 BK | 28523.4 | 10 | 4 mm |
| KDS-DE 4-5 BK | 28524.4 | 10 | 5 mm |
| KDS-DE 5-6 BK | 28525.4 | 10 | 6 mm |
| KDS-DE 6-7 BK | 28526.4 | 10 | 7 mm |
| KDS-DE 7-8 BK | 28527.4 | 10 | 8 mm |
| KDS-DE 8-9 BK | 28528.4 | 10 | 9 mm |
| KDS-DE 9-10 BK | 28529.4 | 10 | 10 mm |
| KDS-DE 10-11 BK | 28530.4 | 10 | 11 mm |
| KDS-DE 11-12 BK | 28531.4 | 10 | 12 mm |
| KDS-DE 12-13 BK | 28532.4 | 10 | 13 mm |
| KDS-DE 13-14 BK | 28533.4 | 10 | 14 mm |
| KDS-DE 14-15 BK | 28608.4 | 10 | 15 mm |
| KDS-DE 15-16 BK | 28670.4 | 10 | 16 mm |

## Seals

### Black large

| Type | Cat. no. | Qty. | Max. Ø |
|---|---|---|---|
| KDS-DEG/B BK | 28534.4 | 10 | Blind |
| KDS-DEG 14-15 BK | 28535.4 | 10 | 15 mm |
| KDS-DEG 15-16 BK | 28536.4 | 10 | 16 mm |
| KDS-DEG 16-17 BK | 28537.4 | 10 | 17 mm |
| KDS-DEG 17-18 BK | 28538.4 | 10 | 18 mm |
| KDS-DEG 18-19 BK | 28539.4 | 10 | 19 mm |
| KDS-DEG 19-20 BK | 28540.4 | 10 | 20 mm |
| KDS-DEG 20-21 BK | 28541.4 | 10 | 21 mm |
| KDS-DEG 21-22 BK | 28542.4 | 10 | 22 mm |
| KDS-DEG 22-23 BK | 28543.4 | 10 | 23 mm |
| KDS-DEG 23-24 BK | 28544.4 | 10 | 24 mm |
| KDS-DEG 24-25 BK | 28545.4 | 10 | 25 mm |
| KDS-DEG 25-26 BK | 28546.4 | 10 | 26 mm |
| KDS-DEG 26-27 BK | 28547.4 | 10 | 27 mm |
| KDS-DEG 27-28 BK | 28548.4 | 10 | 28 mm |
| KDS-DEG 28-29 BK | 28549.4 | 10 | 29 mm |
| KDS-DEG 29-30 BK | 28550.4 | 10 | 30 mm |
| KDS-DEG 30-31 BK | 28551.4 | 10 | 31 mm |
| KDS-DEG 31-32 BK | 28552.4 | 10 | 32 mm |
| KDS-DEG 32-33 BK | 28601.4 | 10 | 33 mm |
| KDS-DEG 33-34 BK | 28730.4 | 10 | 34 mm |
| KDS-DEG 34-35 BK | 28732.4 | 10 | 35 mm |

## Seals with multiple holes

### Black multiple

| Type | Cat. no. | Qty. | Max. Ø |
|---|---|---|---|
| KDS-DE 2x4-5 BK | 28555.4 | 10 | 5 mm |
| KDS-DE 2x5-6 BK | 28556.4 | 10 | 6 mm |
| KDS-DE 2x6.5 BK | 28682.4 | 10 | 6.5 mm |
| KDS-DE 2x7 BK | 28689.4 | 10 | 7 mm |
| KDS-DE 2x8 BK | 28691.4 | 10 | 8 mm |
| KDS-DE 3x5-6 BK | 28687.4 | 10 | 6 mm |
| KDS-DE 4x2-3 BK | 28557.4 | 10 | 3 mm |
| KDS-DE 4x3-4 BK | 28558.4 | 10 | 4 mm |
| KDS-DE 4x4.5 BK | 28681.4 | 10 | 4.5 mm |
| KDS-DE 4x5 BK | 28672.4 | 10 | 5 mm |
| KDS-DE 4x6 BK | 28763.4 | 10 | 6 mm |

## Seals for AS interface cables

### Black

| Type | Cat. no. | Qty. | Max. Ø |
|---|---|---|---|
| KDS-DE/1xASI BK | 28559.4 | 10 | |
| KDS-DE/2xASI BK | 28560.4 | 10 | |

## Cone-shaped seals

### Black

| Type | Cat. no. | Qty. | Max. Ø |
|---|---|---|---|
| KDS-DE/K 2-11 BK | 28553.4 | 10 | 11 mm |
| KDS-DEG/K 7-24 BK | 28554.4 | 10 | 24 mm |

IP66 · UL TYPE Rating 12 · UL TYPE* Rating 4x · ECOLAB certified · RoHS compliant · Made in Germany · CAD · DNV-GL Approved Products

\* 4x is for indoor use only

## Features

- Material: TPE
- Flammability: UL 94 HB
- Temperature range: -40 °C to +120 °C (static)
- Halogen-free, silicone-free
- High chemical resistance
- UV-stabilized
- Protection: IP66

# KDS-DES seals

The **KDS-DES** seals enable you to install non-assembled cables. The corresponding membrane must be pierced (center point is marked) to insert the cables. The cables can then be guided through the seal. Thanks to their design based on the proven **KES system**, the **KDS-DES** seals ensure an IP54-tight seal. Despite the high-density assembly (up to eight cables), the **KDS-DES** seals are compatible with almost all **KDS** solutions (refer to the overview on pages 60 – 61).

The seals' conical shape enables them to be easily pressed in so they can seal gaps. For the assembly, they are pressed into the selected **KDS** system from the inside outwards.

## Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +90 °C (static)
- Halogen-free, silicone-free
- Protection class: IP54

| Seals | KDS-DES 2X10.5 | KDS-DES 3X9.5 | KDS-DES 3X8.5 | KDS-DES 4X7.5 |
|---|---|---|---|---|
| | | | | |
| **Diagram** | Ø 10,5 / 18,7 | Ø 9,5 / 13 | Ø 8,5 / 13 | Ø 7,5 / 9 / 6,3 |
| **Type** | KDS-DES 2X10.5 GR ● | KDS-DES 3X9.5 GR ● | KDS-DES 3X8.5 GR ● | KDS-DES 4X7.5 GR ● |
| *Cat. no.* **Qty.** | *28800.6*    **5** | *28801.6*    **5** | *28802.6*    **5** | *28803.6*    **5** |
| **Size (L x W x H), mm** | 42.69 x 21.1 x 17.7 | 42.69 x 21.1 x 17.7 | 42.69 x 21.1 x 17.7 | 42.69 x 21.1 x 17.7 |
| **Connection data** | | | | |
| Number of cables x cable diameter (mm) | 2 x 10.5 | 3 x 9.5 | 3 x 8.5 | 4 x 7.5 |

| Seals | KDS-DES 7X6.5 | KDS-DES 8X5.5 | KDS-DES 8X4.5 | |
|---|---|---|---|---|
| | | | | |
| **Diagram** | Ø 6,5 / 9 / 7,2 / 4,5 | Ø 5,5 / 8,3 / 6,3 / 4,14 | Ø 4,5 / 8,1 / 6,9 / 4,05 | |
| **Type** | KDS-DES 7X6.5 GR ● | KDS-DES 8X5.5 GR ● | KDS-DES 8X4.5 GR ● | |
| *Cat. no.* **Qty.** | *28804.6*    **5** | *28805.6*    **5** | *28806.6*    **5** | |
| **Size (L x W x H), mm** | 42.69 x 21.1 x 17.7 | 42.69 x 21.1 x 17.7 | 42.69 x 21.1 x 17.7 | |
| **Connection data** | | | | |
| Number of cables x cable diameter (mm) | 7 x 6.5 | 8 x 5.5 | 8 x 4.5 | |

**The KDS-DES is compatible with the following frames:**

| Type | Cat. no. |
|---|---|
| **KDS-SR-FB1/A BK** | *28700.4* |
| **KDS-SR-FB2/B BK** | *28702.4* |
| **KDS-SR-FB3/C BK** | *28705.4* |
| **KDS-SR-FB3/D BK** | *28706.4* |
| **KDS-SR-FB4/B BK** | *28708.4* |
| **KDS-SR-FB4/E BK** | *28711.4* |
| **KDS-SR 1-4 BK*** | *28506.4* |
| **KDS-SR 6/10 BK*** | *28500.4* |
| **KDS-SR 8/16 BK*** | *28502.4* |
| **KDS-SR 10/24 BK*** | *28504.4* |
| **KDS-FP 2x10/24 BK*** | *28660.4* |
| **KDS-FP 3x10/24 BK*** | *28661.4* |
| **KDS-KV M40 BK** | *28613.4* |
| **KDS-KV M50 BK** | *28614.4* |
| **KDS-KV M63 BK** | *28615.4* |
| **KDS-R 40-63 BK**** | *28774.4* |

\*  Combined with the KDS-Inlay 1 or KDS-Inlay 2

\*\*  Only in combination with KDS-RGA M63

**IP54**

**RoHS** compliant

**Made in Germany**

CAD

# Combination options for the modular KDSClick system

## KDSI-SR frames ●



**4-piece frame**
**KDSI-SR 1-4 BK**
*28880.4*

**6-piece frame**
**KDSI-SR 6/10 BK**
*28881.4*

**8-piece frame**
**KDSI-SR 8/16 BK**
*28882.4*

**10-piece frame**
**KDSI-SR 10/24 BK**
*28883.4*

## KDS-SR frames ●



**4-piece frame**
**KDS-SR 1-4 BK**
*28506.4*

**6-piece frame**
**KDS-SR 6/10 BK**
*28500.4*

**8-piece frame**
**KDS-SR 8/16 BK**
*28502.4*

**10-piece frame**
**KDS-SR 10/24 BK**
*28504.4*

## Many combinations for your individual requirements

**Dynamic Measurement & Control Solutions**   **www.dynamicrep.com**   sales@dynamicrep.com   **408-780-9190**

# Inlays

| KDS-Inlay 1 BK | KDS-Inlay 2 BK | KDS-Inlay 2 BK | KDS-Inlay 4 BK | KDS-Inlay 6 BK |
|---|---|---|---|---|
| *28516.4* | *28517.4* | *28517.4* | *28518.4* | *28519.4* |

## 8-piece frame KDS-SR 8/16 or KDSI-SR 8/16

| 1-piece inlay | 2-piece inlay | 4-piece inlay | 6-piece inlay |
|---|---|---|---|

## 10-piece frame KDS-SR 10/24 or KDSI-SR 10/24

| 1-piece inlay | 2-piece inlay | 4-piece inlay | 6-piece inlay |
|---|---|---|---|

# KES
# Cable entries

When feeding in non-assembled cables, lines and pneumatic hoses (without connected plugs), CONTA-CLIP has a wide range of products that offer alternatives to cable glands or single-membrane feed-throughs.

The **KES** cable entries are very flat; they enable space-saving professional cable entries with a very tight seal.

Due to its high assembly density, the **KES** system is well suited for applications where the installations must be carried out in confined spaces.

**IP66**

## Your advantages

- Can be screwed/snapped on
- Very high stability (core: PA 6.6 GF)
- Outstanding strain relief (cone grommet)
- Very simple assembly
  (with marked centring point)
- High-density assemblies
- double seal/tightness: IP66
- Hygienic design: no dirt-prone niches
- Large assortment (48 varieties)
- UL-listed plastic materials
- UL 94 V-0

**Two components**

The **KES** system consists of two components. The inner core, made of polyamide PA 6.6 GF, is crucial for the stability and strain relief; it is over-moulded in the sealing areas with TPE to ensure an IP66 protective seal.

**Many cables in a confined space**

Many cables (with various diameters from 3.2 to 20.5 mm) can be inserted in a confined space and double sealed (IP66) thanks to the special construction of the conical grommets. There are three ways that the **KES** system can be installed: screw fastening from outside, screw fastening with threaded bushes and locking hooks from the inside, or snap-in fastening from the outside.

The corresponding membrane must be pierced (center point is marked) to insert the cables.

**UL 94 V-0 classification**

The **KES** is designed for use in mounting cut-outs of 24-pin heavy-duty connectors. All variants are available in grey and black. The materials used comply with the UL 94 V-0 classification.

IP66

UL TYPE
Rating
**12**

UL TYPE*
Rating
**4x**

ECOLAB certified

RoHS compliant

Made in Germany

CAD

*  4x is for indoor use only

# KES
# Cable entries

## An overview of your advantages

### High-density assemblies
In contrast to the classic cable gland, the **KES** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

**IP66**

### Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.
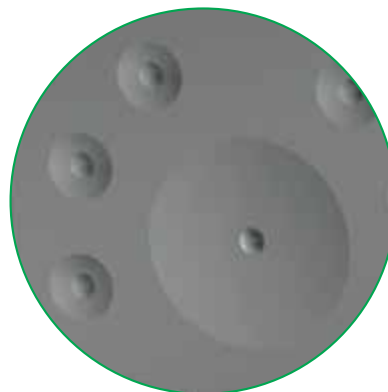
### Integrated strain relief
The special shape of the multi-layered membrane cone grommet ensures an optimal strain relief mechanism for the cables, in accordance with DIN EN 62444.

### Can be used from
### -40 °C to +90 °C
Materials contain no halogen or silicone; suitable for many different applications.
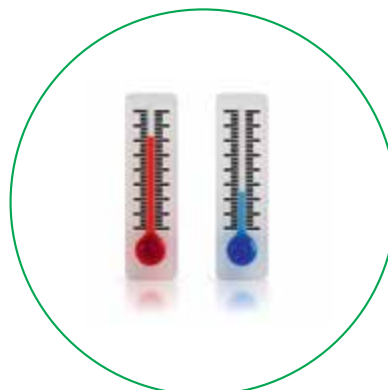
| | | | | | | |
|---|---|---|---|---|---|---|
| **UL** | IP66 | UL TYPE Rating 12 | UL TYPE* Rating 4x | ECOLAB certified | RoHS compliant | Made in Germany | CAD |

\* 4x is for indoor use only

**You can choose one of three attachment options to fit your requirements.**

### 1. Screw-on mount



The **KES** (without threaded bush) is screwed from the outside onto the housing wall.

### 2. Screw-on mount with threaded bushes and latching clips



Using the latching clips, the **KES-GB** latches onto the outside of the housing wall. It is then screwed on from the inside, through the housing wall, using the integrated threaded bushes.

### 3. Latched (snap-on) mount using latching hooks



The **KES-R** is latched from outside to the housing wall using the latching clips.

# KES
# Cable entries

| Cable entries | KES 13/24 | KES 14/24 | KES 16/24 |
|---|---|---|---|
| **Diagram** | Page 60 | Page 60 | Page 60 |
| **Mounting type** | | | |
| Screw-on mount | | | |
| **Type / colour** | **KES 13/24 GR** ◕ | **KES 14/24 GR** ◕ | **KES 16/24 GR** ◕ |
| Cat. no.                          Qty. | 28630.6              10 | 28631.6              10 | 28632.6              10 |
| **Type / colour** | **KES 13/24 BK** ● | **KES 14/24 BK** ● | **KES 16/24 BK** ● |
| Cat. no.                          Qty. | 28630.4              10 | 28631.4              10 | 28632.4              10 |
| **Mounting type** | | | |
| Screw fastening with pressed-in threaded bush and snap-in latching clips. | | | |
| **Type / colour** | **KES-GB 13/24 GR** ◕ | **KES-GB 14/24 GR** ◕ | **KES-GB 16/24 GR** ◕ |
| Cat. no.                          Qty. | 28640.6              10 | 28641.6              10 | 28642.6              10 |
| **Type / colour** | **KES-GB 13/24 BK** ● | **KES-GB 14/24 BK** ● | **KES-GB 16/24 BK** ● |
| Cat. no.                          Qty. | 28640.4              10 | 28641.4              10 | 28642.4              10 |
| **Mounting type** | | | |
| Tool-free latch-on mount | | | |
| **Type / colour** | **KES-R 13/24 GR** ◕ | **KES-R 14/24 GR** ◕ | **KES-R 16/24 GR** ◕ |
| Cat. no.                          Qty. | 28650.6              10 | 28651.6              10 | 28652.6              10 |
| **Type / colour** | **KES-R 13/24 BK** ● | **KES-R 14/24 BK** ● | **KES-R 16/24 BK** ● |
| Cat. no.                          Qty. | 28650.4              10 | 28651.4              10 | 28652.4              10 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 10 x 3.2 – 6.3 | 5 x 3.2 – 6.3 | 8 x 3.2 – 5.5 |
| | 3 x 16 – 20.5 | 2 x 4 – 7.5 | 6 x 5 – 8.5 |
| | | 3 x 5.5 – 10.5 | 2 x 9.5 – 14.5 |
| | | 1 x 8 – 12.5 | |
| | | 3 x 12 – 16.2 | |
| **Features** | | | |
| Material of frame / sealing plate | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer |
| Temperature range | -40 °C to +90 °C | -40 °C to +90 °C | -40 °C to +90 °C |
| Protection | IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) |
| **Flammability class** | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 |
| **Accessories** | | | |
| **Sheet-metal hole punch (refer to page 92)** | **BL KES** | **BL KES** | **BL KES** |
| Cat. no.                          Qty. | 28744.0               1 | 28744.0               1 | 28744.0               1 |

**IP66**

**UL TYPE** Rating **12**

**UL TYPE\*** Rating **4x**

**ECOLAB** certified

**RoHS** compliant

Made in **Germany**

CAD

\*   4x is for indoor use only

| KES 16-1/24 | KES 17/24 | KES 20/24 | KES 21/24 | KES 32/24 |
|---|---|---|---|---|
|  |  |  |  |  |
| Page 60 | Page 61 | Page 61 | Page 61 | Page 61 |
| KES 16-1/24 GR ● | KES 17/24 GR ● | KES 20/24 GR ● | KES 21/24 GR ● | KES 32/24 GR ● |
| 28633.6   10 | 28634.6   10 | 28635.6   10 | 28636.6   10 | 28637.6   10 |
| KES 16-1/24 BK ● | KES 17/24 BK ● | KES 20/24 BK ● | KES 21/24 BK ● | KES 32/24 BK ● |
| 28633.4   10 | 28634.4   10 | 28635.4   10 | 28636.4   10 | 28637.4   10 |
| KES-GB 16-1/24 GR ● | KES-GB 17/24 GR ● | KES-GB 20/24 GR ● | KES-GB 21/24 GR ● | KES-GB 32/24 GR ● |
| 28643.6   10 | 28644.6   10 | 28645.6   10 | 28646.6   10 | 28647.6   10 |
| KES-GB 16-1/24 BK ● | KES-GB 17/24 BK ● | KES-GB 20/24 BK ● | KES-GB 21/24 BK ● | KES-GB 32/24 BK ● |
| 28643.4   10 | 28644.4   10 | 28645.4   10 | 28646.4   10 | 28647.4   10 |
| KES-R 16-1/24 GR ● | KES-R 17/24 GR ● | KES-R 20/24 GR ● | KES-R 21/24 GR ● | KES-R 32/24 GR ● |
| 28653.6   10 | 28654.6   10 | 28655.6   10 | 28656.6   10 | 28657.6   10 |
| KES-R 16-1/24 BK ● | KES-R 17/24 BK ● | KES-R 20/24 BK ● | KES-R 21/24 BK ● | KES-R 32/24 BK ● |
| 28653.4   10 | 28654.4   10 | 28655.4   10 | 28656.4   10 | 28657.4   10 |
| 2 x 3.2 – 6.3 | 4 x 3.2 – 6.3 | 12 x 3.2 – 6.3 | 1 x 3.2 – 6.3 | 32 x 3.2 – 6.3 |
| 9 x 4 – 7.5 | 2 x 4 – 7.5 | 8 x 5.5 – 10.5 | 14 x 4 – 7.5 | |
| 1 x 5.5 – 10.5 | 1 x 5.5 – 10.5 | | 4 x 5.5 – 10.5 | |
| 1 x 8 – 12.5 | 10 x 8 – 12.5 | | 2 x 8 – 12.5 | |
| 3 x 12 – 16.2 | | | | |
| PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer |
| -40 °C to +90 °C | -40 °C to +90 °C | -40 °C to +90 °C | -40 °C to +90 °C | -40 °C to +90 °C |
| IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) | IP66 (with snap-in mount: IP54) |
| UL 94 V-0 | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 | UL 94 V-0 |
| BL KES | BL KES | BL KES | BL KES | BL KES |
| 28744.0   1 | 28744.0   1 | 28744.0   1 | 28744.0   1 | 28744.0   1 |

# KES
## Dimensional diagrams / Mounting cut-out for cable entries

### KES 13/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
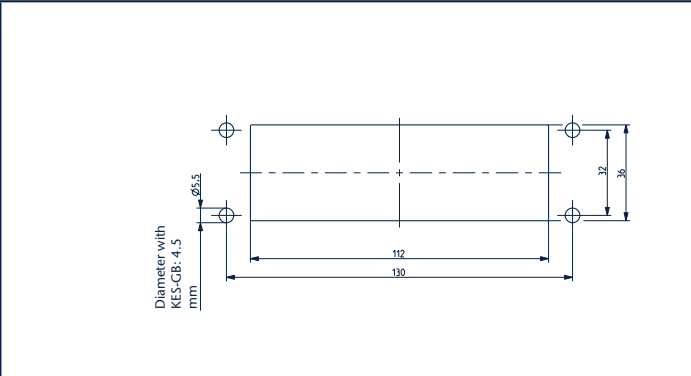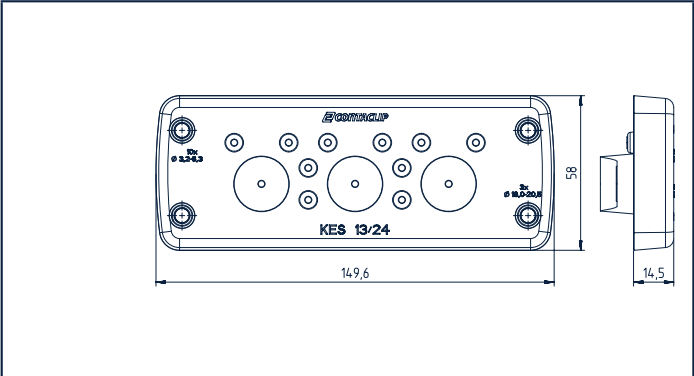


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES 14/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
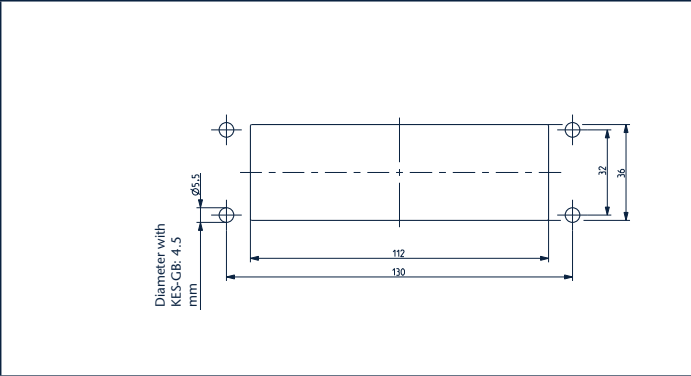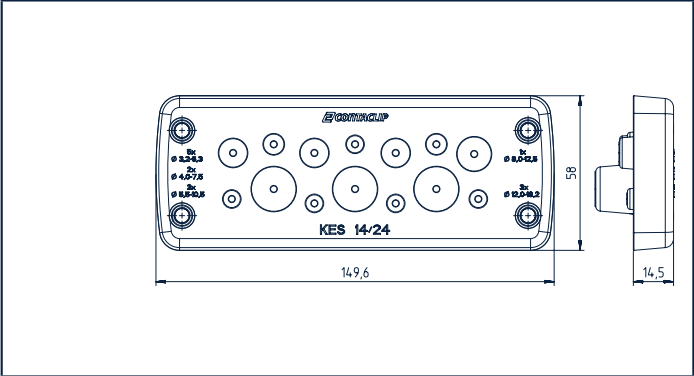


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES 16/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
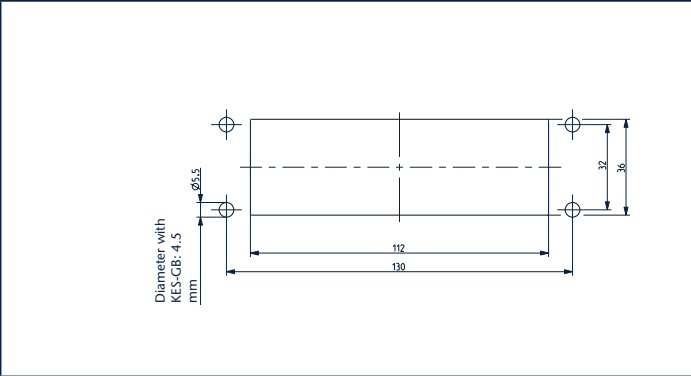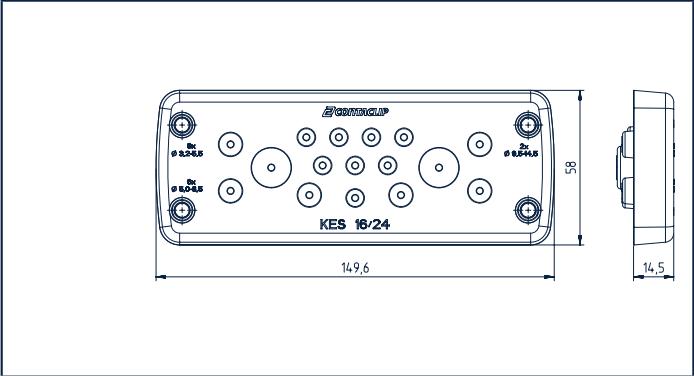


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES 16-1/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
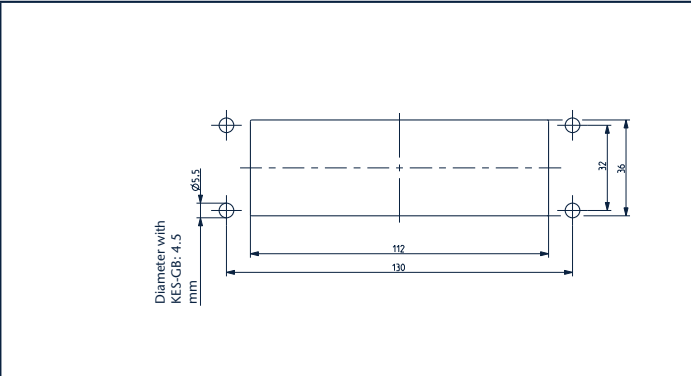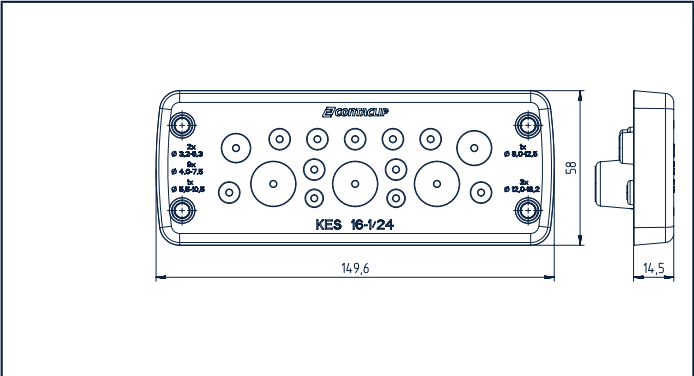


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES 17/24

**Dimensional diagram** | **Mounting cut-out**
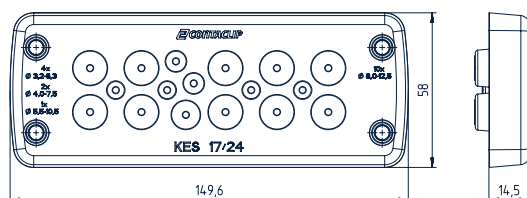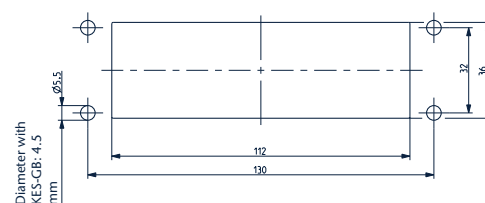


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES 20/24

**Dimensional diagram** | **Mounting cut-out**
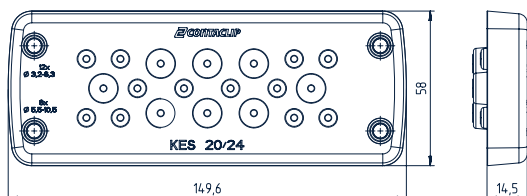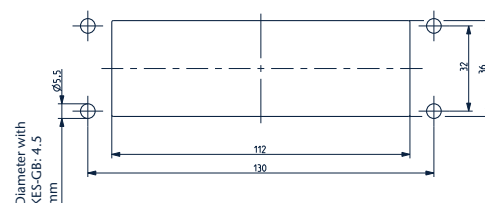


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES 21/24

**Dimensional diagram** | **Mounting cut-out**
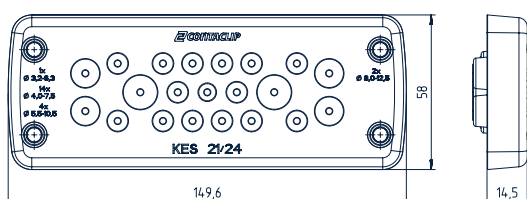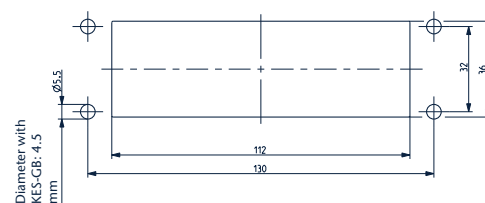


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES 32/24

**Dimensional diagram** | **Mounting cut-out**
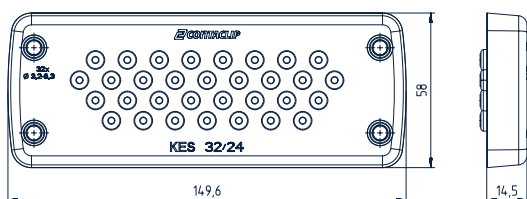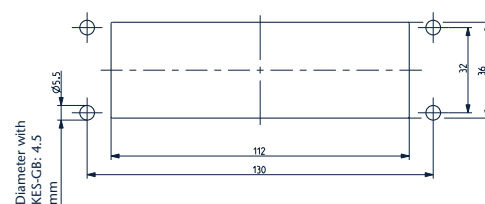


**Torque for the frame's mounting screw: 2.5 – 3 Nm**

# KES-E
# Cable entries

Many cables in a confined space: The **KES-E** cable entry system enables you to insert many cables (without plugs) with diameters ranging from 1.0 mm to 16.1 mm into a very confined space. The cable entry is inserted without tools into the intended opening (variant "A" for wall thickness from 1.5 to 2.5 mm, and variant "B" for wall thickness from 2.5 to 4.0 mm).

In order to insert the cables, the corresponding membrane (with marked centring point) must be pierced; the cables are then simply guided through. The material TPE guarantees that IP54 protection is maintained.



## Your advantages

- Tool-free installation
- Outstanding stability
- Simple assembly
  (with marked centre point)
- High-density assemblies
- Hygienic design
- For walls of various thickness

## Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +90 °C (static)
- Halogen-free, silicone-free
- Wall thickness A: 1.5 – 2.5 mm, and B: 2.5 – 4.0 mm
- Protection class: IP54

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# KES-E
# variety



KES-E 12/24



KES-E 14/24



KES-E 17/24



KES-E 18/24



KES-E 19/24



KES-E 26/24



KES-E 42/24



KES-E 48/24



KES-E 50/24

UL TYPE Rating 12

IP54     RoHS compliant     Made in Germany     CAD

# KES-E
# Cable entries

| Cable entries | KES-E 12/24 | KES-E 14/24 | KES-E 17/24 |
|---|---|---|---|
| |  |  |  |
| **Type** | **KES-E 12/24 A GR** ● | **KES-E 14/24 A GR** ● | **KES-E 17/24 A GR** ● |
| *Cat. no.*    Qty. | *28810.6*    **10** | *28811.6*    **10** | *28812.6*    **10** |
| For wall thickness | 1.5 – 2.5 | 1.5 – 2.5 | 1.5 – 2.5 |
| **Type** | **KES-E 12/24 B GR** ● | **KES-E 14/24 B GR** ● | **KES-E 17/24 B GR** ● |
| *Cat. no.*    Qty. | *28840.6*    **10** | *28841.6*    **10** | *28842.6*    **10** |
| For wall thickness | 2.5 – 4.0 | 2.5 – 4.0 | 2.5 – 4.0 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 12 x 1.0 – 15.0 | 14 x 1.0 – 12.1 | 5 x 1.0 – 10.5 |
| | | | 12 x 1.0 – 12.6 |
| **Features** | | | |
| Protection | IP54 | IP54 | IP54 |

| Cable entries | KES-E 18/24 | KES-E 19/24 | KES-E 26/24 |
|---|---|---|---|
| |  |  |  |
| **Type** | **KES-E 18/24 A GR** ● | **KES-E 19/24 A GR** ● | **KES-E 26/24 A GR** ● |
| *Cat. no.*    Qty. | *28813.6*    **10** | *28814.6*    **10** | *28815.6*    **10** |
| For wall thickness | 1.5 – 2.5 | 1.5 – 2.5 | 1.5 – 2.5 |
| **Type** | **KES-E 18/24 B GR** ● | **KES-E 19/24 B GR** ● | **KES-E 26/24 B GR** ● |
| *Cat. no.*    Qty. | *28843.6*    **10** | *28844.6*    **10** | *28845.6*    **10** |
| For wall thickness | 2.5 – 4.0 | 2.5 – 4.0 | 2.5 – 4.0 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 4 x 1.0 – 6.5 | 12 x 1.0 – 6.5 | 16 x 1.0 – 6.5 |
| | 5 x 1.0 – 10.5 | 7 x 1.0 – 12.1 | 4 x 1.0 – 12.1 |
| | 5 x 1.0 – 12.5 | | 4 x 1.0 – 16.1 |
| | 4 x 1.0 – 16.1 | | 2 x ASI |
| **Features** | | | |
| Protection | IP54 | IP54 | IP54 |

| Cable entries | KES-E 42/24 | KES-E 48/24 | KES-E 50/24 |
|---|---|---|---|
| |  |  |  |
| **Type** | **KES-E 42/24 A GR** ● | **KES-E 48/24 A GR** ● | **KES-E 50/24 A GR** ● |
| *Cat. no.*    Qty. | *28816.6*    **10** | *28817.6*    **10** | *28818.6*    **10** |
| For wall thickness | 1.5 – 2.5 | 1.5 – 2.5 | 1.5 – 2.5 |
| **Type** | **KES-E 42/24 B GR** ● | **KES-E 48/24 B GR** ● | **KES-E 50/24 B GR** ● |
| *Cat. no.*    Qty. | *28846.6*    **10** | *28847.6*    **10** | *28848.6*    **10** |
| For wall thickness | 2.5 – 4.0 | 2.5 – 4.0 | 2.5 – 4.0 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 12 x 1.0 – 7.2 | 48 x 1.0 – 6.5 | 33 x 1.0 – 5.3 |
| | 17 x 1.0 – 6.4 | | 9 x 1.0 – 6.4 |
| | 12 x 1.0 – 5.0 | | 8 x 1.0 – 8.3 |
| | 1 x 1.0 – 4.7 | | |
| **Features** | | | |
| Protection | IP54 | IP54 | IP54 |

# KES-E
## Dimensional diagrams / Mounting cut-out for cable entries

**KES-E 12/24**
Dimensional diagram
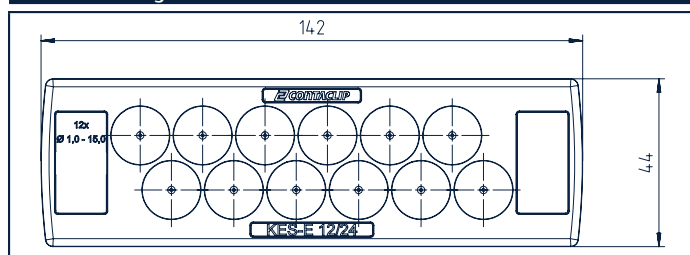
**KES-E 14/24**
Dimensional diagram
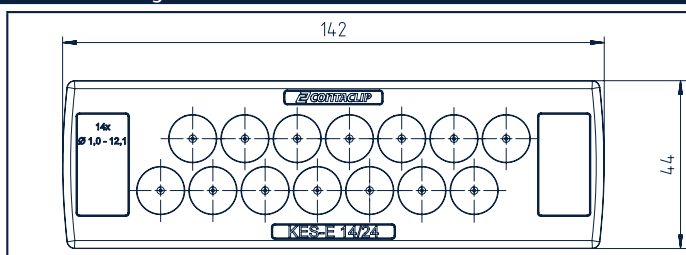
**KES-E 17/24**
Dimensional diagram
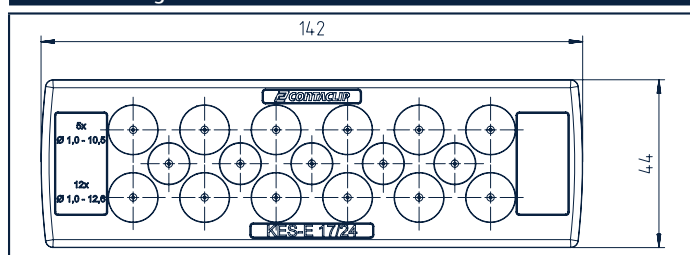
**KES-E 18/24**
Dimensional diagram
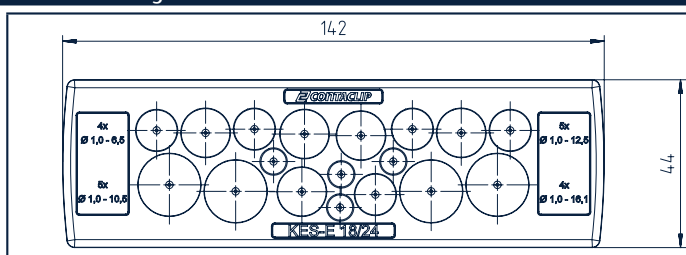
**KES-E 19/24**
Dimensional diagram
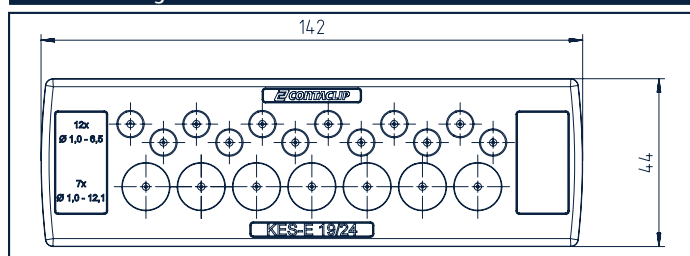
**KES-E 26/24**
Dimensional diagram
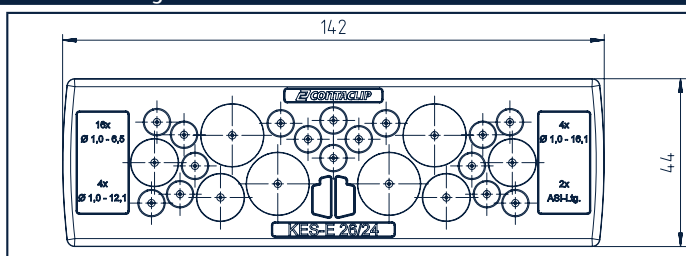
**KES-E 42/24**
Dimensional diagram
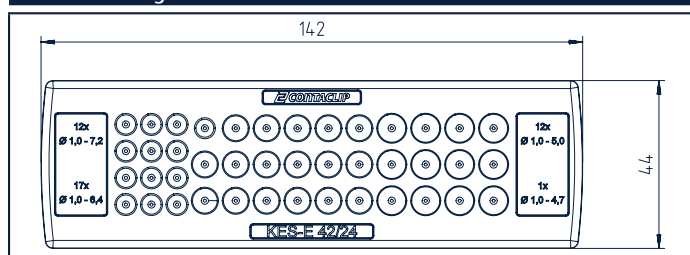
**KES-E 48/24**
Dimensional diagram
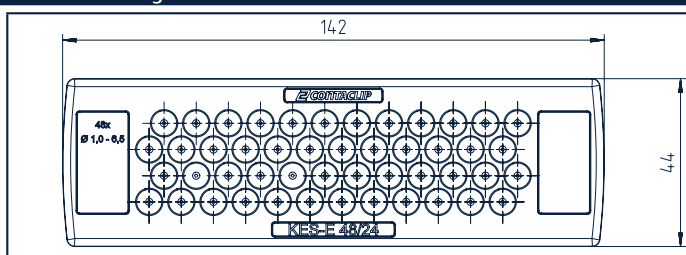
**KES-E 50/24**
Dimensional diagram
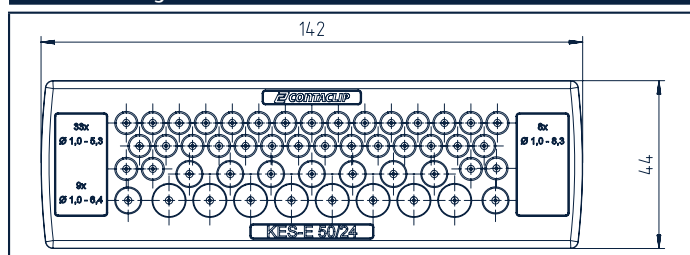
Mounting cut-out
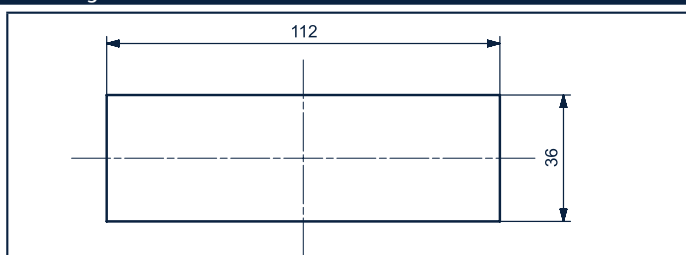
UL · UL TYPE Rating 12 · IP54 · RoHS compliant · Made in Germany · CAD

# KES-E-R
# Round cable entries

Many cables in a confined space: The **KES-E-R** cable entry system enables you to insert many cables (without plugs) with diameters ranging from 1.0 mm to 22.5 mm into a very confined space. The cable entry is inserted without tools into the intended opening (variant "A" for wall thickness from 1.5 to 2.5 mm, and variant "B" for wall thickness from 2.5 to 4.0 mm).

In order to insert the cables, the corresponding membrane (with marked centring point) must be pierced; the cables are then simply guided through. The material TPE guarantees that IP54 protection is maintained.

## Your advantages

- Tool-free installation
- Outstanding stability
- Simple assembly
  (with marked centre point)
- High-density assemblies
- Hygienic design
- For walls of various thickness

## Features

- Material: TPE
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +90 °C (static)
- Halogen-free, silicone-free
- Wall thickness A: 1.5 – 2.5 mm, and B: 2.5 – 4.0 mm
- Protection class: IP54

# KES-E-R
# variety



**KES-E-R 50/9**



**KES-E-R 50/11**



**KES-E-R 50/12**



**KES-E-R 50/16**



**KES-E-R 50/18**



**KES-E-R 50/20**



**KES-E-R 50/35**

UL TYPE Rating **12**

UL TYPE* Rating **4x**

**IP54**

**RoHS** compliant

Made in **Germany**

CAD

*   4x is for indoor use only

# KES-E-R
# Round cable entries

| Round cable entries | KES-E-R 50/9 | KES-E-R 50/11 | KES-E-R 50/12 |
|---|---|---|---|
| |  |  |  |
| **Type** | **KES-E-R 50/9 A GR** ● | **KES-E-R 50/11 A GR** ● | **KES-E-R 50/12 A GR** ● |
| Cat. no.                                    Qty. | 28829.6                    **10** | 28830.6                    **10** | 28831.6                    **10** |
| For wall thickness | 1.5 – 2.5 | 1.5 – 2.5 | 1.5 – 2.5 |
| **Type** | **KES-E-R 50/9 B GR** ● | **KES-E-R 50/11 B GR** ● | **KES-E-R 50/12 B GR** ● |
| Cat. no.                                    Qty. | 28859.6                    **10** | 28860.6                    **10** | 28861.6                    **10** |
| For wall thickness | 2.5 – 4.0 | 2.5 – 4.0 | 2.5 – 4.0 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 5 x 1.0 – 7.0 | 7 x 1.0 – 7.2 | 10 x 1.0 – 9.2 |
| | 4 x 1.0 – 18.0 | 3 x 1.0 – 11.2 | 2 x 1.0 – 11.2 |
| | | 1 x 1.0 – 22.5 | |
| **Features** | | | |
| Protection | IP54 | IP54 | IP54 |

| Round cable entries | KES-E-R 50/16 | KES-E-R 50/18 | KES-E-R 50/20 |
|---|---|---|---|
| |  |  |  |
| **Type** | **KES-E-R 50/16 A GR** ● | **KES-E-R 50/18 A GR** ● | **KES-E-R 50/20 A GR** ● |
| Cat. no.                                    Qty. | 28832.6                    **10** | 28833.6                    **10** | 28834.6                    **10** |
| For wall thickness | 1.5 – 2.5 | 1.5 – 2.5 | 1.5 – 2.5 |
| **Type** | **KES-E-R 50/16 B GR** ● | **KES-E-R 50/18 B GR** ● | **KES-E-R 50/20 B GR** ● |
| Cat. no.                                    Qty. | 28862.6                    **10** | 28863.6                    **10** | 28864.6                    **10** |
| For wall thickness | 2.5 – 4.0 | 2.5 – 4.0 | 2.5 – 4.0 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 4 x 1.0 – 5.3 | 2 x 1.0 – 4.0 | 16 x 1.0 – 6.3 |
| | 5 x 1.0 – 6.3 | 2 x 1.0 – 6.0 | 4 x 1.0 – 9.3 |
| | 3 x 1.0 – 9.5 | 4 x 1.0 – 7.2 | |
| | 4 x 1.0 – 11.3 | 5 x 1.0 – 9.4 | |
| | | 5 x 1.0 – 12.0 | |
| **Features** | | | |
| Protection | IP54 | IP54 | IP54 |

| Round cable entries | KES-E-R 50/35 | | |
|---|---|---|---|
| |  | | |
| **Type** | **KES-E-R 50/35 A GR** ● | | |
| Cat. no.                                    Qty. | 28835.6                    **10** | | |
| For wall thickness | 1.5 – 2.5 | | |
| **Type** | **KES-E-R 50/35 B GR** ● | | |
| Cat. no.                                    Qty. | 28865.6                    **10** | | |
| For wall thickness | 2.5 – 4.0 | | |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 35 x 1.0 – 5.2 | | |
| **Features** | | | |
| Protection | IP54 | | |

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# KES-E-R
## Dimensional diagrams / Mounting cut-out for cable entries

**KES-E-R 50/9**
Dimensional diagram
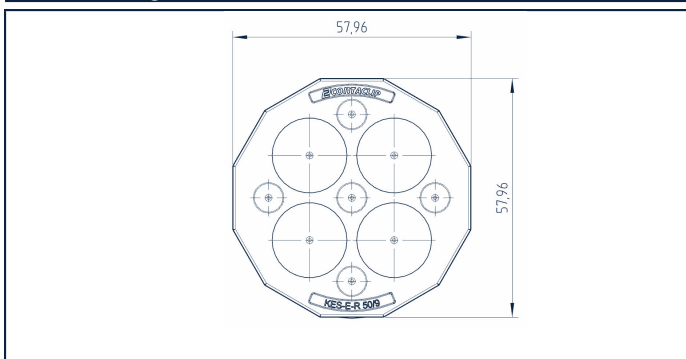


**KES-E-R 50/11**
Dimensional diagram
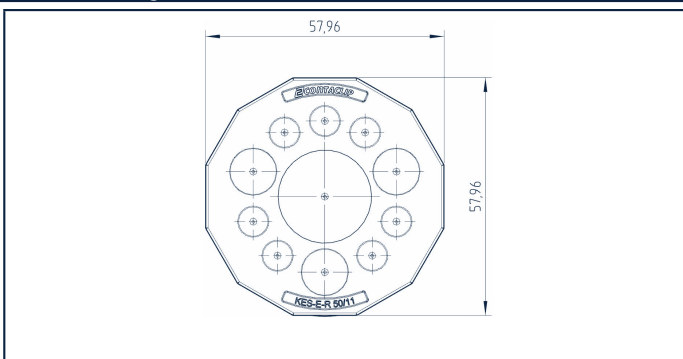


**KES-E-R 50/12**
Dimensional diagram
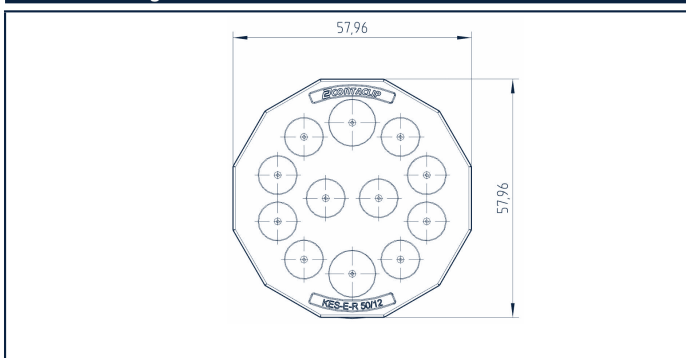


**KES-E-R 50/16**
Dimensional diagram
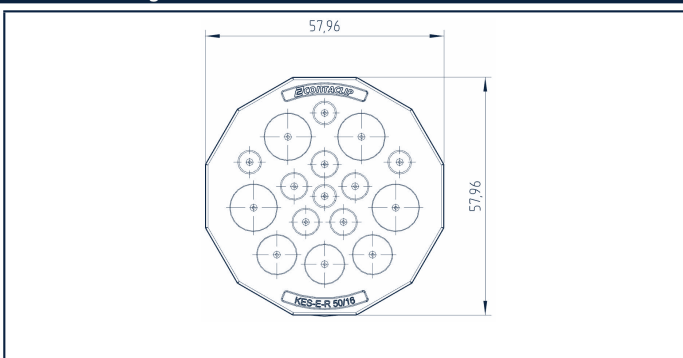


**KES-E-R 50/18**
Dimensional diagram
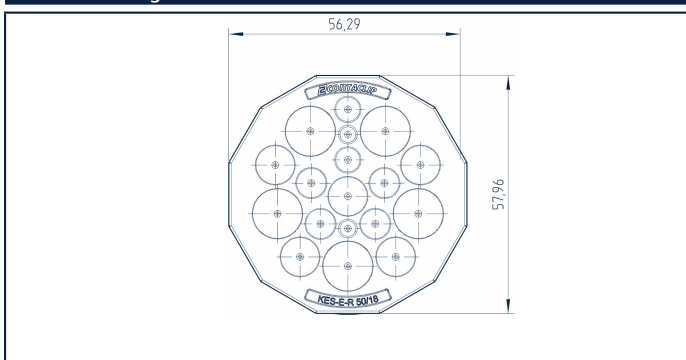


**KES-E-R 50/20**
Dimensional diagram
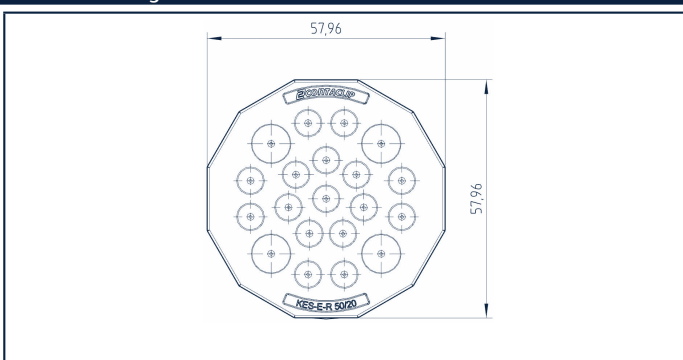


**KES-E-R 50/35**
Dimensional diagram
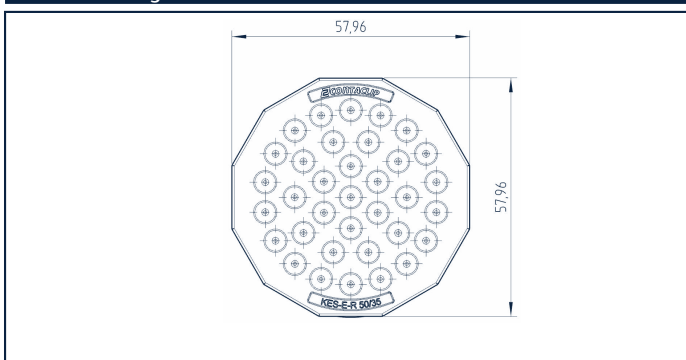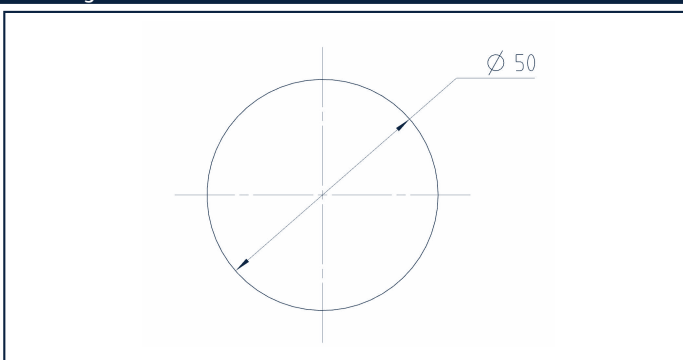


**Mounting cut-out**



Ø 50

UL TYPE Rating **12**

UL TYPE* Rating **4x**

**IP54**

**RoHS** compliant

Made in **Germany**

CAD

\* 4x is for indoor use only

# KES-GB-FDA
# Cable entries for food industry applications

In the food industry, there are strict hygiene regulations which require that all surfaces in the immediate vicinity of the process can be cleaned easily, thoroughly and without abrasion.
Of course, these cover the cable entries and cable glands that seal the passages of cables and hoses into the interior of machine housings or switchgear. These must not have any rough surfaces, crevices or cracks that could promote germ build-up.
The housing materials and sealing systems must also be able to withstand frequent cleaning processes, even when aggressive chemicals are used.

The cable entry plates from our **KES-GB-FDA** series meet the requirements for use in food production applications. They enable the reliable sealing of up to 32 cables in a very confined space.

**IP66**

## Your advantages

- Can be screwed/snapped on
- Very high stability (core: PA 6.6 GF)
- Outstanding strain relief (cone grommet)
- Very simple assembly
  (with marked centering point)
- High-density assemblies
- double seal/tightness: IP66
- Hygienic design: no dirt-prone niches
- Large assortment (8 varieties)
- UL-listed plastic materials
- UL 94 HB
- FDA-compliant material

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**Two components**

The **KES**-**GB**-**FDA** system consists of two components.
The inner core, made of polyamide PA 6.6 GF, is crucial for
the stability and strain relief; it is over-moulded in the sealing
areas with TPE to ensure an IP66 protective seal.

**Many cables in a confined space**

Many cables (with various diameters from 3.2 to 20.5 mm)
can be inserted in a confined space and double sealed (IP66)
thanks to the special construction of the conical grommets.
The **KES**-**GB**-**FDA** system uses threaded bushes and snap-in
hooks from the inside as the attachment mechanism.
The corresponding membrane must be pierced (center point
is marked) to insert the cables.

**FDA-compliant material**

The FDA-compliant TPE material meets the requirements
of the Food Industry Regulations 1935/2004/EC and (EU)
10/2011, as well as the requirements from the US Food and
Drug Administration (FDA).
FDA compliant means that a material meets all FDA guidelines
determining the safe and direct contact with food.

IP66    RoHS compliant    Made in Germany    CAD

# KES-GB-FDA
# Cable entries for food industry applications

## An overview of your advantages

**IP66**

### High-density assemblies
In contrast to the classic cable gland, the **KES** allows many cables, hoses and lines to be installed in a space-saving manner, even in cramped installation conditions.

### Very precise
The piercing points are clearly marked so that cables and hoses can be centred precisely.
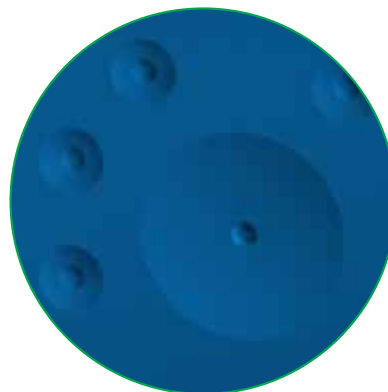
### Integrated strain relief
The special shape of the multi-layered membrane cone grommet ensures an optimal strain relief mechanism for the cables, in accordance with DIN EN 62444.
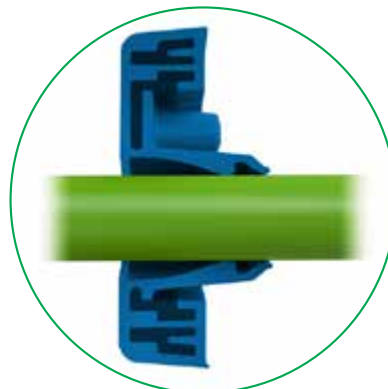
### Can be used from
### -40 °C to +80 °C
Materials contain no halogen or silicone; suitable for many different applications.

IP66    RoHS compliant    Made in Germany    CAD

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**Simple installation**

### Screw-on mount with threaded bushes and latching clips





Using the latching clips, the **KES-GB-FDA** latches onto the outside of the housing wall. It can then be screwed on from the inside, through the housing wall, using the integrated threaded bushes.

# KES-GB-FDA
# Cable entries for food industry applications

| Cable entries | KES-GB-FDA 13/24 | KES-GB-FDA 14/24 | KES-GB-FDA 16/24 |
|---|---|---|---|
| **Diagram** | Page 84 | Page 84 | Page 84 |
| **Mounting type** | | | |
| Screw fastening with pressed-in threaded bush and snap-in latching clips. | | | |
| **Type / colour** | **KES-GB-FDA 13/24 BU** ● | **KES-GB-FDA 14/24 BU** ● | **KES-GB-FDA 16/24 BU** ● |
| *Cat. no.*                Qty. | *28900.5*                10 | *28901.5*                10 | *28902.5*                10 |
| **Connection data** | | | |
| Number of cables x cable diameter (mm) | 10 x 3.2 – 6.3 | 5 x 3.2 – 6.3 | 8 x 3.2 – 5.5 |
| | 3 x 16 – 20.5 | 2 x 4 – 7.5 | 6 x 5 – 8.5 |
| | | 3 x 5.5 – 10.5 | 2 x 9.5 – 14.5 |
| | | 1 x 8 – 12.5 | |
| | | 3 x 12 – 16.2 | |
| **Features** | | | |
| Material of frame / sealing plate | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer |
| Temperature range | -40 °C to +80 °C | -40 °C to +80 °C | -40 °C to +80 °C |
| Protection | IP66 | IP66 | IP66 |
| **Flammability class** | UL 94 HB | UL 94 HB | UL 94 HB |
| **Accessories** | | | |
| **Sheet-metal hole punch (refer to page 92)** | **BL KES** | **BL KES** | **BL KES** |
| *Cat. no.*                Qty. | *28744.0*                1 | *28744.0*                1 | *28744.0*                1 |

IP66    RoHS compliant    Made in Germany    CAD

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| KES-GB-FDA 16-1/24 | KES-GB-FDA 17/24 | KES-GB-FDA 20/24 | KES-GB-FDA 21/24 | KES-GB-FDA 32/24 |
|---|---|---|---|---|
| Page 84 | Page 85 | Page 85 | Page 85 | Page 85 |
| **KES-GB-FDA 16-1/24 BU** ● | **KES-GB-FDA 17/24 BU** ● | **KES-GB-FDA 20/24 BU** ● | **KES-GB-FDA 21/24 BU** ● | **KES-GB-FDA 32/24 BU** ● |
| *28903.5*　　**10** | *28904.5*　　**10** | *28905.5*　　**10** | *28906.5*　　**10** | *28907.5*　　**10** |
| 2 x 3.2 – 6.3 | 4 x 3.2 – 6.3 | 12 x 3.2 – 6.3 | 1 x 3.2 – 6.3 | 32 x 3.2 – 6.3 |
| 9 x 4 – 7.5 | 2 x 4 – 7.5 | 8 x 5.5 – 10.5 | 14 x 4 – 7.5 | |
| 1 x 5.5 – 10.5 | 1 x 5.5 – 10.5 | | 4 x 5.5 – 10.5 | |
| 1 x 8 – 12.5 | 10 x 8 – 12.5 | | 2 x 8 – 12.5 | |
| 3 x 12 – 16.2 | | | | |
| PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer | PA 6.6 GF / elastomer |
| -40 °C to +80 °C | -40 °C to +80 °C | -40 °C to +80 °C | -40 °C to +80 °C | -40 °C to +80 °C |
| IP66 | IP66 | IP66 | IP66 | IP66 |
| UL 94 HB | UL 94 HB | UL 94 HB | UL 94 HB | UL 94 HB |
| **BL KES** | **BL KES** | **BL KES** | **BL KES** | **BL KES** |
| *28744.0*　　**1** | *28744.0*　　**1** | *28744.0*　　**1** | *28744.0*　　**1** | *28744.0*　　**1** |

# KES-GB-FDA
## Dimensional diagrams / Mounting cut-out for cable entries

### KES-GB-FDA 13/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
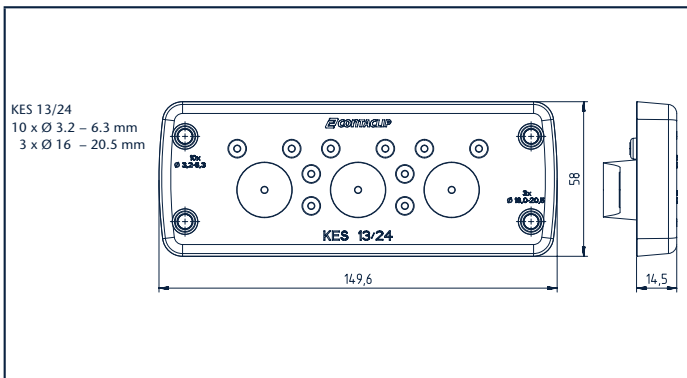
KES 13/24
10 x Ø 3.2 – 6.3 mm
3 x Ø 16 – 20.5 mm

Mounting cut-out
For wall thickness of 1.5 – 2 mm
(for mounting with snap-in hooks)
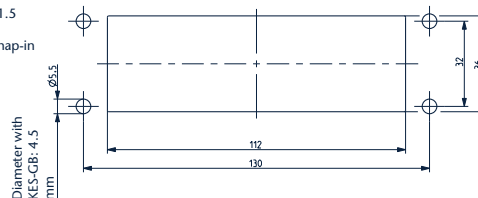
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES-GB-FDA 14/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
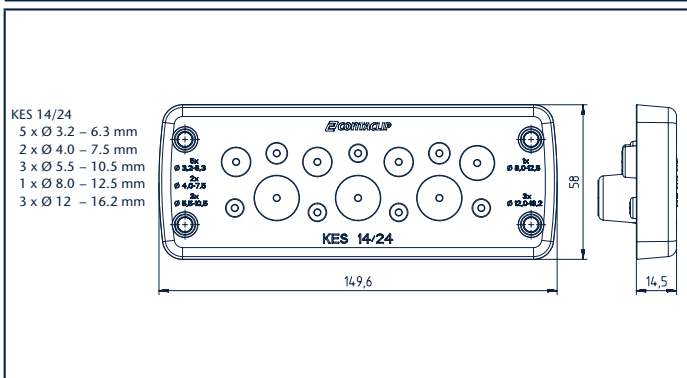
KES 14/24
5 x Ø 3.2 – 6.3 mm
2 x Ø 4.0 – 7.5 mm
3 x Ø 5.5 – 10.5 mm
1 x Ø 8.0 – 12.5 mm
3 x Ø 12 – 16.2 mm

Mounting cut-out
For wall thickness of 1.5 – 2 mm
(for mounting with snap-in hooks)
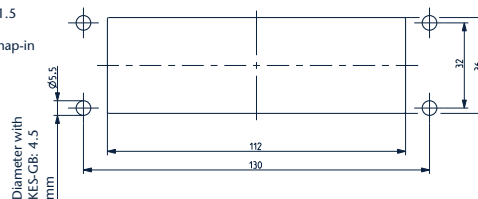
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES-GB-FDA 16/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
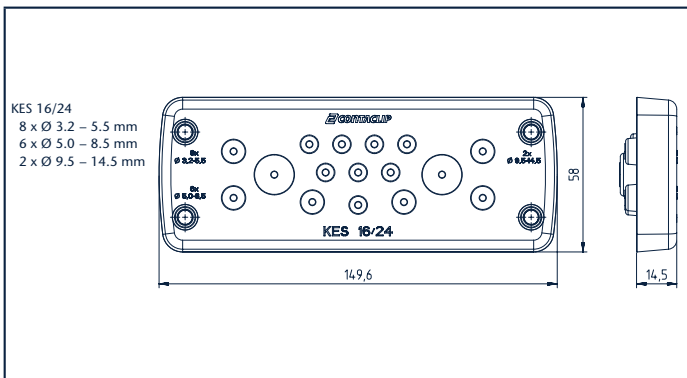
KES 16/24
8 x Ø 3.2 – 5.5 mm
6 x Ø 5.0 – 8.5 mm
2 x Ø 9.5 – 14.5 mm

Mounting cut-out
For wall thickness of 1.5 – 2 mm
(for mounting with snap-in hooks)
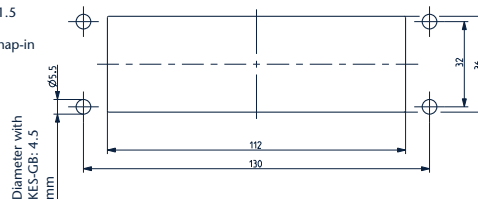
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

### KES-GB-FDA 16-1/24

| Dimensional diagram | Mounting cut-out |
| --- | --- |
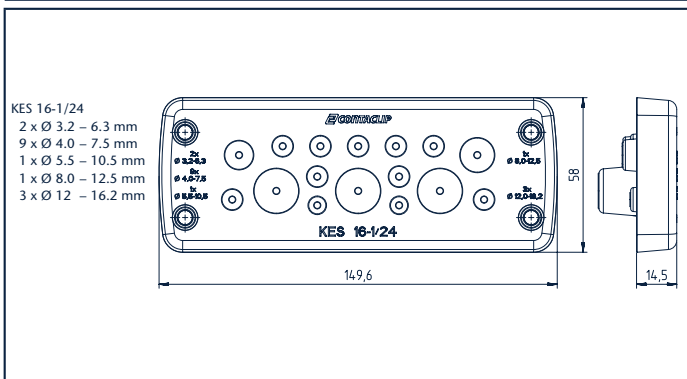
KES 16-1/24
2 x Ø 3.2 – 6.3 mm
9 x Ø 4.0 – 7.5 mm
1 x Ø 5.5 – 10.5 mm
1 x Ø 8.0 – 12.5 mm
3 x Ø 12 – 16.2 mm

Mounting cut-out
For wall thickness of 1.5 – 2 mm
(for mounting with snap-in hooks)
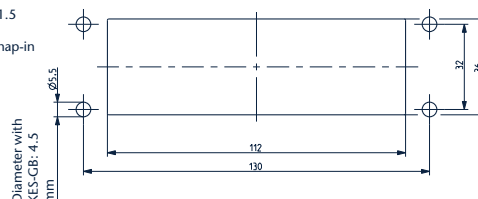
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES-GB-FDA 17/24

**Dimensional diagram**  |  **Mounting cut-out**

KES 17/24
4 x Ø 3.2 – 6.3 mm
2 x Ø 4.0 – 7.5 mm
1 x Ø 5.5 – 10.5 mm
10 x Ø 8.0 – 12.5 mm

**Mounting cut-out**
For wall thickness of 1.5
– 2 mm
(for mounting with snap-in hooks)
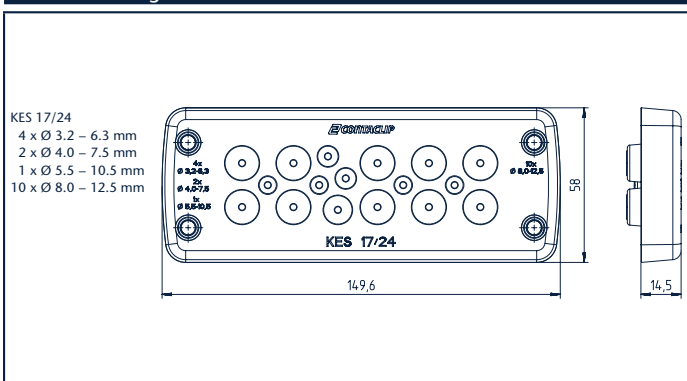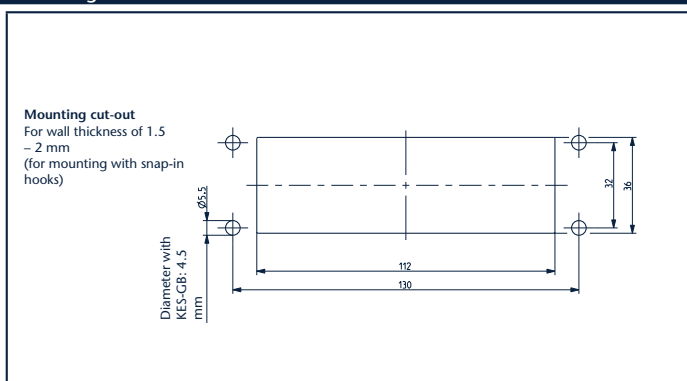
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES-GB-FDA 20/24

**Dimensional diagram**  |  **Mounting cut-out**

KES 20/24
12 x Ø 3.2 – 6.3 mm
8 x Ø 5.5 – 10.5 mm

**Mounting cut-out**
For wall thickness of 1.5
– 2 mm
(for mounting with snap-in hooks)
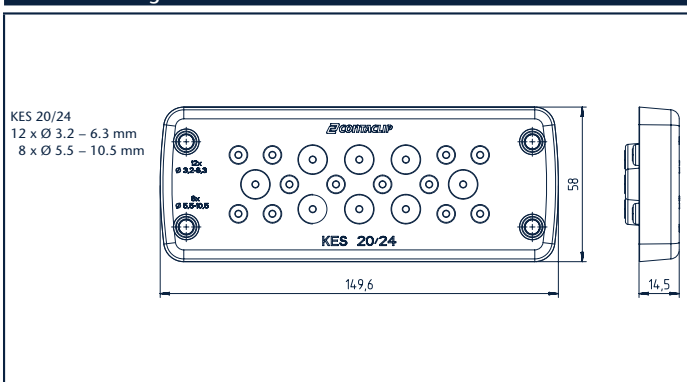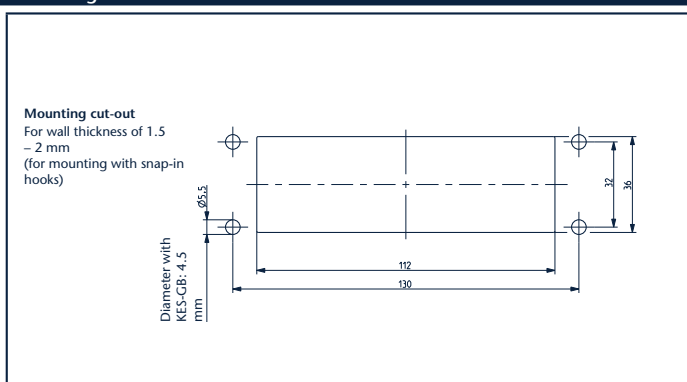
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KES-GB-FDA 21/24

**Dimensional diagram**  |  **Mounting cut-out**

KES 20/24
1 x Ø 3.2 – 6.3 mm
14 x Ø 4.0 – 7.5 mm
4 x Ø 5.5 – 10.5 mm
2 x Ø 8.0 – 12.5 mm

**Mounting cut-out**
For wall thickness of 1.5
– 2 mm
(for mounting with snap-in hooks)
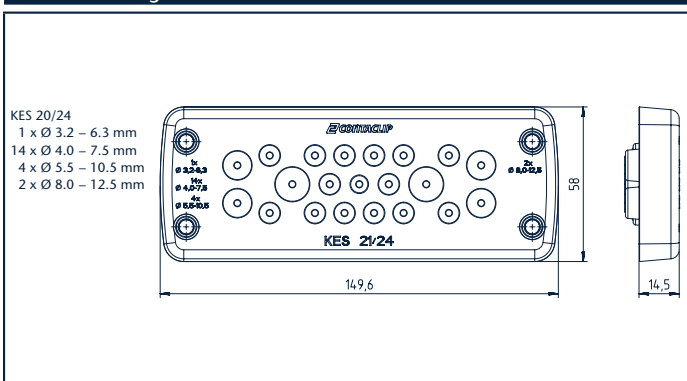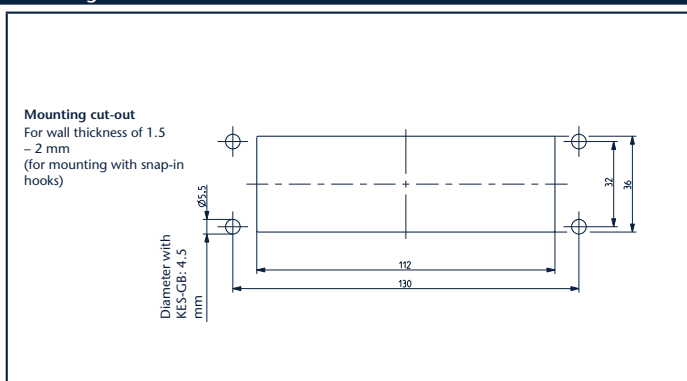
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

## KDS-GB-FDA KES 32/24

**Dimensional diagram**  |  **Mounting cut-out**

KES 32/24
32 x Ø 3.2 – 6.3 mm

**Mounting cut-out**
For wall thickness of 1.5
– 2 mm
(for mounting with snap-in hooks)
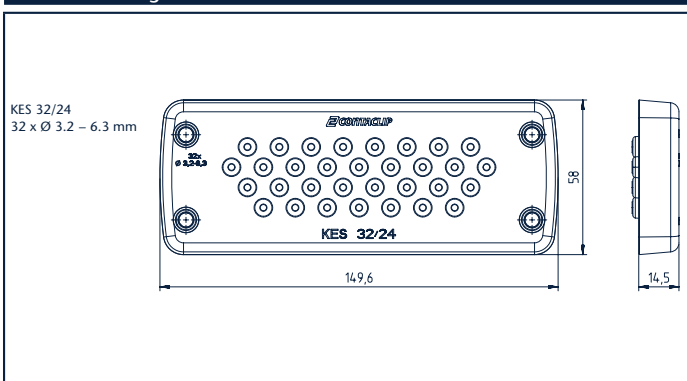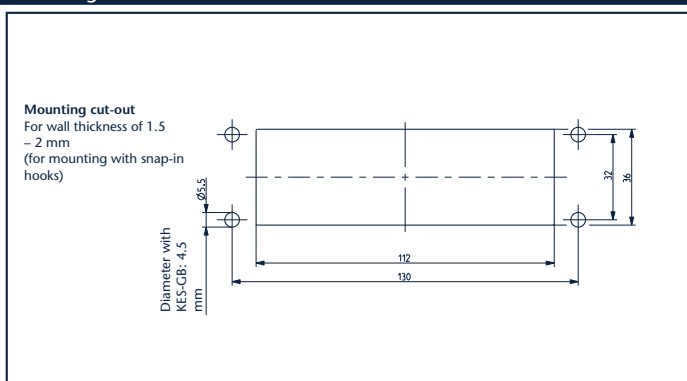
**Torque for the frame's mounting screw: 2.5 – 3 Nm**

# KDS BW 1 actuating tool

Using the **KDS BW1** actuating tool, the seals can be conveniently mounted in and dismantled from the frame. The ergonomic grip and the special shape enable simple and precise installations, especially for cabling applications in confined spaces.



| Actuating tool | KDS BW 1 |
|---|---|
|  |  |

| Type | | KDS BW 1 | |
|---|---|---|---|
| *Cat. no.* | **Qty.** | *28622.0* | **1** |
| **Description** | | Actuating tool | |
| **Material** | | PA 6.6 | |
| **Colour** | | varies | |

# KDSClick assortment box

The **KDSClick assortment box** is perfect for installation/maintenance work as well as innovative developments. The large selection of seals and inlays makes it easy to configure all the KDSClick systems to meet your needs.

| KDSClick assortment box | |
|---|---|
| |  |

| Type | | KDSClick assortment box | |
|---|---|---|---|
| *Cat. no.* | **Qty.** | *28764.0* | **1** |
| **Included in delivery** | | 20 small dummy elements KDS-DE/B | |
| | | 220 small seals KDS-DE 2-14 mm | |
| | | 100 small multiple seals KDS-DE 4-6.5 mm | |
| | | 5 large dummy elements KDS-DEG/B | |
| | | 20 large seals KDS-DEG 14-21 mm | |
| | | 7 universal cone seals KDS-DE/K 2-24 mm | |
| | | 37 x inlay 1 to inlay 6 | |
| | | 1 actuating tool KDS BW 1 | |
| | | 1 plastic mini-calliper gauge | |
| | | 1 plastic electrical cabinet key | |

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# KDS-EMV-SAB shield-connection rails

The **KDS-EMV-SAB** shield-connection rails, when used together with our different shield-connection clips, enable cables to be shielded in a quick, practical and uncomplicated process. The cables can be routed through the CONTA-CLIP cable entry systems into housing or electrical cabinets.

The **KDS-EMV-SAB** shield-connection rails are fastened on the inside of the electrical cabinet using screws, which are required for mounting the **KDS/KES** system. The appropriate shield clip (depending on the cable diameter) can then be snapped onto the shield-connection rail. The shield-connection clips/brackets are optionally available with a built-in strain relief function.

| Shield-connection rails | KDS-EMV-SAB 1-4 | KDS-EMV-SAB 6/10 |
|---|---|---|
| Diagram | 16   3,35   5,3   5,3 | 16   3,35   5,3   5,3 |
| **Type** | **KDS-EMV-SAB 1-4** | **KDS-EMV-SAB 6/10** |
| *Cat. no.*          **Qty.** | *28623.0*                          **1** | *28624.0*                          **1** |
| **Suitable for** | KDS-SR 1-4 BK | KDS-SR 6/10 BK |

| Shield-connection rails | KDS-EMV-SAB 8/16 | KDS-EMV-SAB 10/24 |
|---|---|---|
| Diagram | 16   3,35   5,3   5,3 | 16   3,35   5,3   5,3 |
| **Type** | **KDS-EMV-SAB 8/16** | **KDS-EMV-SAB 10/24** |
| *Cat. no.*          **Qty.** | *28625.0*                          **1** | *28626.0*                          **1** |
| **Suitable for** | KDS-SR 8/16 BK | KDS-SR 10/24 BK |
| | | KES…./24 |
| | | KES-GB…/24 |

| Shield-connection rails | KDS-FP-EMV-SAB 10/24 |
|---|---|
| Diagram | 16   3,4   5,3   5,3 |
| **Type** | **KDS-FP-EMV-SAB 10/24** |
| *Cat. no.*          **Qty.** | *28627.0*                          **1** |
| **Suitable for** | KDS-FP 2X10/24 BK |
| | KDS-FP 3X10/24 BK |
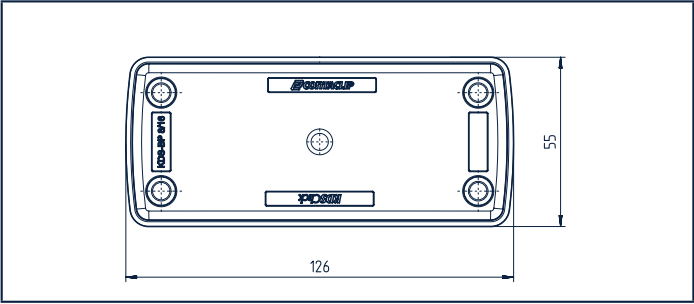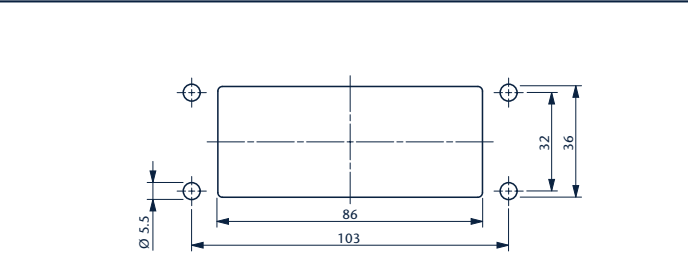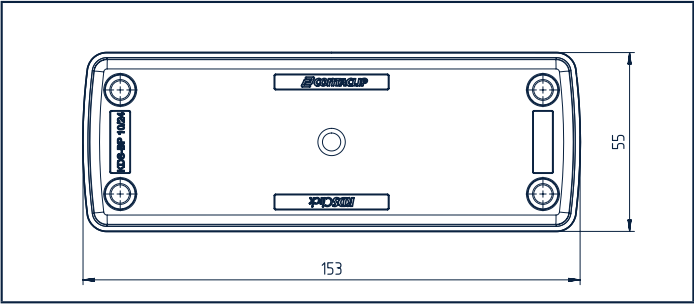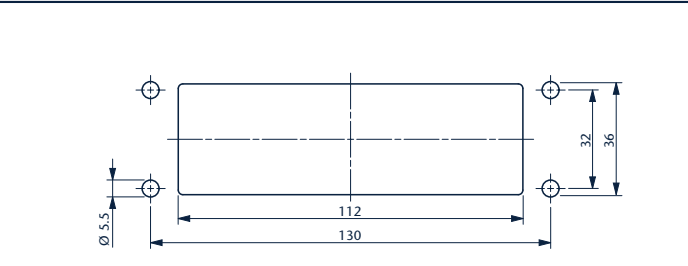
# KDS-BP blanking plates

| Blanking plates | | KDS-BP 8/16 | KDS-BP 10/24 |
|---|---|---|---|
| The **KDS-BP** blanking plates provide a simple method for securely closing existing wall cut-outs for the **KDS** or **KES** systems. They are made of glass-fibre reinforced PA 6.6 material which enables excellent impact resistance. An injected, all-round gasket made of TPE ensures a reliable IP66 protective seal. | | | |
| **Type / colour** | | **KDS-BP 8/16 BK** | **KDS-BP 10/24 BK** |
| *Cat. no.* | Qty. | *28508.4*     10 | *28509.4*     10 |
| **Description** | | Blanking plate | Blanking plate |
| **Dimensions, mm** | | | |
| Length x Width: | | 126 x 55 | 153 x 55 |
| Installation height | | 11.5 | 11.5 |
| **Dimensions for mounting cut-out (mm)** | | | |
| KDSClick | | 91 x 46 | 113.5 x 46 |
| Standard cut-outs | | 86 x 36 | 112 x 36 |
| **Accessories** | | | |
| **Sheet-metal hole punch** | | **BL-VA KDS-SR 8/16** | **BL-VA KDS-SR 10/24** |
| *Cat. no.* | Qty. | *28685.0*     1 | *28686.0*     1 |

# KDS-BP
## Dimensional diagrams / Mounting cut-out for cable entries

### KDS-BP 8/16

| Dimensional diagram | Mounting cut-out |
|---|---|



Also suitable for the CONTA-CLIP standard 46 x 91 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

### KDS-BP 10/24

| Dimensional diagram | Mounting cut-out |
|---|---|



Also suitable for the CONTA-CLIP standard 46 x 113.5 mm cut-outs

Torque for the frame's mounting screw: 3 Nm

## Features

- Material: polyamide PA 6.6, glass-fibre reinforced | TPE
- Colour: black
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

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# KDS/KES-VS seal plugs for all KDS and KES systems

| Seal plugs, screw frame | Type | Cat. no. | Qty. | Diameter (Ø A), mm | Head diameter, mm |
|---|---|---|---|---|---|
| The **KDS/KES-VS** seal plugs allow you to reseal unused holes in **KDS** seals or in already pierced **KES** cable entries. The geometry of the head prevents splashed water or dust from penetrating from the outside. Thus, protection class IP66 is ensured. | KDS-VS-SR BK | 28779.4 | 100 | | |

| Seal plugs | | | | | |
|---|---|---|---|---|---|
| | KDS/KES-VS 2 WH | 28781.7 | 25 | 2 | 5 |
| | KDS/KES-VS 3 WH | 28782.7 | 25 | 3 | 6 |
| | KDS/KES-VS 4 WH | 28783.7 | 25 | 4 | 7 |
| | KDS/KES-VS 5 WH | 28784.7 | 25 | 5 | 8 |
| | KDS/KES-VS 6 WH | 28785.7 | 25 | 6 | 9 |
| | KDS/KES-VS 7 WH | 28786.7 | 25 | 7 | 10 |
| | KDS/KES-VS 8 WH | 28787.7 | 25 | 8 | 11 |
| | KDS/KES-VS 9 WH | 28788.7 | 25 | 9 | 12 |
| | KDS/KES-VS 10 WH | 28789.7 | 25 | 10 | 13 |
| | KDS/KES-VS 11 WH | 28790.7 | 25 | 11 | 14 |
| | KDS/KES-VS 12 WH | 28791.7 | 25 | 12 | 15 |
| | KDS/KES-VS 13 WH | 28792.7 | 25 | 13 | 16 |
| | KDS/KES-VS 14 WH | 28793.7 | 25 | 14 | 17 |
| | KDS/KES-VS 15 WH | 28794.7 | 25 | 15 | 18 |
| | KDS/KES-VS 16 WH | 28795.7 | 25 | 16 | 19 |
| | KDS/KES-VS 17 WH | 28796.7 | 25 | 17 | 20 |
| | KDS/KES-VS 22 WH | 28797.7 | 25 | 22 | 25 |

| Seal plugs AS interface cables | | | | | |
|---|---|---|---|---|---|
| | KDS-VS ASI/2 WH | 28798.7 | 25 | ASI | |
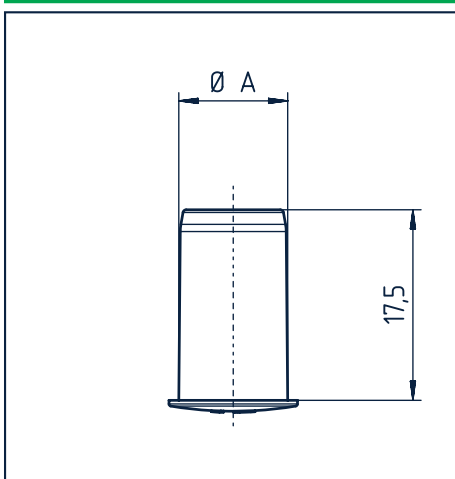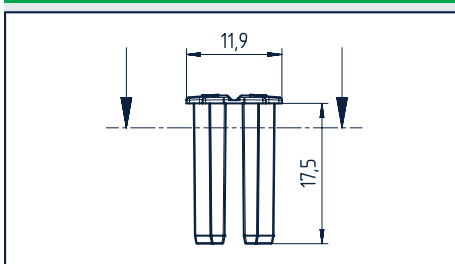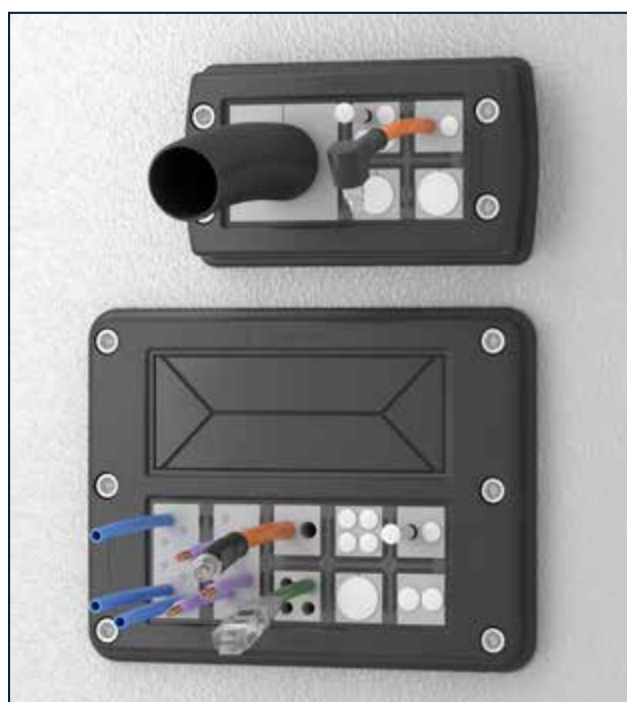
## Features

- Material: polyamide PA 6.6 (KDS-VS-SR: TPE)
- Colour: white (KDS-VS-SR: black)
- Flammability: UL 94 V-0
- Temperature range: -40 °C to +120 °C
- Halogen-free, silicone-free
- Protection: IP66

# Punching tools

The hydraulic hand pump, when used together with our hole punch, is perfectly suited for quickly producing precise chip-free cut-outs.

Rectangular punches are available for all **KDSClick** cable entry systems and for the **KES** cable entry system. The built-in punch-hole marking tip can be used to punch-mark the drill points clearly for screw-on attachments.

Sheet-metal hole punches are available in circular format for the sizes M20, M25, M32, M40, M50 and M63.

The hydraulic hand pump is also compatible with the hole punches from other popular manufacturers.

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# Hydraulic hand pump

**Hydraulic hand pump**

The hydraulic hand pump can be used to punch out openings for various cable feed-through and cable entry systems. The cylinder can be swivelled along 3 axes and rotated 360°, so that the cut-outs can also be punched in inconvenient places.

## Your advantages

- Easy-to-use format without a tube
- Cylinder can rotate 360° and swivel along 3 axes
- Lightweight aluminium version (weight: 2 kg)
- Can also be used for inconvenient hard-to-reach locations

## Features

**Punching functionality for max. material thickness**
- Round holes 82.0 mm,
  Steel 3 mm, VA 2 mm
- Square holes 68.0 x 68.0 mm,
  Steel 3 mm, VA 2 mm
- Rectangular holes 36.0 x 112.0 mm,
  Steel 3 mm, VA 2 mm

| Hydraulic pump | |
|---|---|



| Type | | Hydraulic hand pump for sheet-metal hole punch | |
|---|---|---|---|
| *Cat. no.* | **Qty.** | *28679.0* | **1** |
| **Included in delivery** | | 1 hydraulic hand pump | |
| | | 1 hydraulic screw 19.0 x 130 mm | |
| | | 1 hydraulic screw 19.0 / 9.5 mm | |
| | | 1 spacer bushing | |
| | | 1 tube of anti-wear paste | |
| | | 1 HSS co-boring drill | |
| | | Multi-step drill, steps: 8 – 10 – 11.5 – 12.5 (M12) –14.5 –17.5 – 21 mm | |
| | | 1 transport box | |

# BL sheet-metal hole punch

The sheet-metal hole punch for the cable entry systems **KDS-SR, KDSI-SR**, **KDS-FP**, **KDS-FB**, **KDS-R/KDS-KV** and for the cable entry system **KES**. Using the sheet-metal punches, your desired cut-outs can be made in a few minutes without any chips or splintering. The built-in punch-hole marking tip can be used to punch-mark the drill points clearly for screw-on attachments.
These sheet-metal punches are compatible with all common hydraulic pumps.

**Assortment case**



Punch, die, pulling axle and locknut in plastic case

| Sets of sheet-metal hole punches | BL SET RECTANGLE Hyd. | BL SET M16-M63 Hyd. | BL-VA SET RECTANGLE Hyd. |
|---|---|---|---|
| Type | BL SET RECTANGLE Hyd. | BL SET M16-M63 Hyd. | BL-VA SET RECTANGLE Hyd. |
| Cat. no.                                Qty. | 28761.0                        1 | 28766.0                        1 | 28760.0                        1 |
| Included in delivery | Hydraulic pump + 4 x BL KDS-SR | Hydraulic pump + 7 x BL M16-M63 | Hydraulic pump + 4 x BL-VA KDS-SR |

| Sheet-metal hole punch | BL KDS-SR 1-4 | BL KDS-SR 6/10 | BL KDS-SR 8/16 |
|---|---|---|---|
| Type | BL KDS-SR 1-4 | BL KDS-SR 6/10 | BL KDS-SR 8/16 |
| Cat. no.                                Qty. | 28674.0                        1 | 28675.0                        1 | 28676.0                        1 |
| Maximum wall thickness | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal |
| Dimensions of break-out hole | 46 x 46 mm | 68.5 x 46 mm | 91 x 46 mm |
| Included in delivery | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case |

| VA sheet-metal hole punch | BL-VA KDS-SR 1-4 | BL-VA KDS-SR 6/10 | BL-VA KDS-SR 8/16 |
|---|---|---|---|
| Type | BL-VA KDS-SR 1-4 | BL-VA KDS-SR 6/10 | BL-VA KDS-SR 8/16 |
| Cat. no.                                Qty. | 28683.0                        1 | 28684.0                        1 | 28685.0                        1 |
| Maximum wall thickness | 2.0 mm with stainless steel sheet | 2.0 mm with stainless steel sheet | 2.0 mm with stainless steel sheet |
| Dimensions of break-out hole | 46 x 46 mm | 68.5 x 46 mm | 91 x 46 mm |
| Included in delivery | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case |

| Sheet-metal hole punch | BL KES | BL KDS-FP2 | BL KDS-KV M20 |
|---|---|---|---|
| Type | BL KES | BL KDS-FP2 | BL KDS-KV M20 |
| Cat. no.                                Qty. | 28744.0                        1 | 28745.0                        1 | 28746.0                        1 |
| Maximum wall thickness | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal |
| Dimensions of break-out hole | 112 x 36 mm | 110 x 131 mm | 20.4 mm |
| Included in delivery | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case | Punch, die |

| VA sheet-metal hole punch | BL-VA KES | BL-VA KDS-FP2 | BL-VA KDS-KV M20 |
|---|---|---|---|
| Type | BL-VA KES | BL-VA KDS-FP2 | BL-VA KDS-KV M20 |
| Cat. no.                                Qty. | 28752.0                        1 | 28753.0                        1 | 28754.0                        1 |
| Maximum wall thickness | 2.0 mm with stainless steel sheet | 2.0 mm with stainless steel sheet | 2.0 mm with stainless steel sheet |
| Dimensions of break-out hole | 112 x 36 mm | 110 x 131 mm | 20.4 mm |
| Included in delivery | Punch, die, pulling axle, locknut, plastic case | Punch, die, pulling axle, locknut, plastic case | Punch, die |

## BL KDS-KV sheet-metal hole punch

Hole punch for round cut-outs

## BL KDS sheet-metal hole punch

Hole punch for rectangular cut-outs

| BL-VA SET M16-M63 Hyd. | | | |
|---|---|---|---|
| **BL-VA SET M16-M63 Hyd.** | | | |
| *28765.0* 1 | | | |
| Hydraulic pump + 7 x B-VAL M16-M63 | | | |

| BL KDS-SR 10/24 | BL KDS-FB1 | BL KDS-FB2 | BL KDS-FB3 | BL KDS-FB4 |
|---|---|---|---|---|
| **BL KDS-SR 10/24** | **BL KDS-FB1** | **BL KDS-FB2** | **BL KDS-FB3** | **BL KDS-FB4** |
| *28677.0* 1 | *28734.0* 1 | *28735.0* 1 | *28736.0* 1 | *28737.0* 1 |
| 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal |
| **113.5 x 46 mm** | **46 x 24 mm** | **68 x 24 mm** | **89 x 24 mm** | **111 x 24 mm** |
| Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case |

| BL-VA KDS-SR 10/24 | BL-VA KDS-FB1 | BL-VA KDS-FB2 | BL-VA KDS-FB3 | BL-VA KDS-FB4 |
|---|---|---|---|---|
| **BL-VA KDS-SR 10/24** | **BL-VA KDS-FB1** | **BL-VA KDS-FB2** | **BL-VA KDS-FB3** | **BL-VA KDS-FB4** |
| *28686.0* 1 | *28729.0* 1 | *28741.0* 1 | *28742.0* 1 | *28743.0* 1 |
| 2.0 mm with stainless steel sheet | 2.0, with stainless steel sheet | 2.0, with stainless steel sheet | 2.0, with stainless steel sheet | 2.0 mm with stainless steel sheet |
| **113.5 x 46 mm** | **46 x 24 mm** | **68 x 24 mm** | **89 x 24 mm** | **111 x 24 mm** |
| Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case | Punch, die, pulling axle, lock-nut, plastic case |

| BL KDS-KV M25 | BL KDS-KV M32 | BL KDS-KV M40 | BL KDS-KV M50 | BL KDS-KV M63 |
|---|---|---|---|---|
| **BL KDS-KV M25** | **BL KDS-KV M32** | **BL KDS-KV M40** | **BL KDS-KV M50** | **BL KDS-KV M63** |
| *28747.0* 1 | *28748.0* 1 | *28749.0* 1 | *28750.0* 1 | *28751.0* 1 |
| 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal | 2.0 mm with S 235 sheet metal |
| **25.4 mm** | **32.5 mm** | **40.5 mm** | **50.5 mm** | **63.5 mm** |
| Punch, die | Punch, die | Punch, die | Punch, die | Punch, die |

| BL-VA KDS-KV M25 | BL-VA KDS-KV M32 | BL-VA KDS-KV M40 | BL-VA KDS-KV M50 | BL-VA KDS-KV M63 |
|---|---|---|---|---|
| **BL-VA KDS-KV M25** | **BL-VA KDS-KV M32** | **BL-VA KDS-KV M40** | **BL-VA KDS-KV M50** | **BL-VA KDS-KV M63** |
| *28755.0* 1 | *28756.0* 1 | *28757.0* 1 | *28758.0* 1 | *28759.0* 1 |
| 2.0 mm with stainless steel sheet | 2.0, with stainless steel sheet | 2.0, with stainless steel sheet | 2.0, with stainless steel sheet | 2.0 mm with stainless steel sheet |
| **25.4 mm** | **32.5 mm** | **40.5 mm** | **50.5 mm** | **63.5 mm** |
| Punch, die | Punch, die | Punch, die | Punch, die | Punch, die |

# Shield-connection clip

In the field of industrial process engineering, a high degree of interference immunity is required of electrical equipment. This is a critical factor affecting the availability of industrial measurement and control systems.

When constructing low-interference systems, both the cable shielding and the shielded ground are very important. The juncture where the cable shielding connects to the housing ground is a critical point. The connection should be low-ohm and should also feature minimal inductive resistance.

You should be certain that this connection can be established in a practical, simple and quick manner. CONTA-CLIP's **SAB/SSAB** shielding systems are one of the most comprehensive product portfolios on the market. They offer a perfect solution for any application.

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# Overview of installation types

## Direct mounting



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SABKM…/D
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## C-rail mounting



SAB…/GWP
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## Busbar mounting



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SABKMD…/SSCH/Z
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## Mounting on the DIN rail



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SAB …/MF
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SABKM…/MF/35/Z
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# SABK
# Shield-connection bracket

The stripped cable is easily pushed into the **SABK** shield-connection clips. The spring force in the clip then ensures that the shield has a consistently good contact.

The large contact areas ensure excellent dissipation of interference current.

The **SABK** can be used with the mounting feet for various mounting platforms (e.g. on DIN rail, busbar, or for direct installation).

The **SABK** for the proper shield diameter is mounted by simply clipping it on (no tools required).

## Your advantages

- The spring exerts continuous contact force on the cable shield
- High conductivity
- Very good dissipation of high-frequency interference current
- No tools are required: all sizes can be clipped onto the various mounting feet

| Shield-connection bracket | | SABK 3 | | SABK 6 | | SABK 8 | |
|---|---|---|---|---|---|---|---|
| **Type** | | SABK 3 | | SABK 6 | | SABK 8 | |
| *Cat. no.* | **Qty.** | *17970.0* | **25** | *17971.0* | **25** | *17972.0* | **25** |
| **Cable diameter Ø** | | 1.5–3 mm | | 3–6 mm | | 6–8 mm | |
| **Material** | | Steel | | Steel | | Steel | |

| Shield-connection bracket | | SABK 11 | | SABK 16 | | SABK 30 | |
|---|---|---|---|---|---|---|---|
| **Type** | **Qty.** | SABK 11 | | SABK 16 | | SABK 30 | |
| *Cat. no.* | | *17973.0* | **25** | *17974.0* | **25** | *17997.0* | **25** |
| **Cable diameter Ø** | | 8–11 mm | | 11–16 mm | | 17–30 mm | |
| **Material** | | Steel | | Steel | | Steel | |

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# SABKM
# Shield-connection clip Multi

The **SABKM Multi** shield-connection clip differs from conventional shielding clips because of its two specially shaped legs.

These legs produce force on both sides so that a very large cable clamping range is attained. The stripped cable is easily pushed into the **SABKM**. The spring force in the clip then ensures that the shield has a consistently good contact.

The large contact surfaces ensure that any interference current is reliably dissipated.

The **SABKM** can be used with mounting feet for various mounting systems (e.g. on DIN rail, busbar, or for direct installation).

The **SABKM** for the proper shield diameter is mounted by simply clipping it on (no tools required).

## Your advantages

- Fewer individual parts because of the large contact/clamping range
- Consistently good contact force due to spring action
- High conductivity
- Very good dissipation of high-frequency interference current
- No tools are required: all sizes can be clipped onto the various mounting feet

| Shield-connection bracket | SABKM 12 | SABKM 18 |
|---|---|---|
|  |  |  |
| **Type** | **SABKM 12** | **SABKM 18** |
| *Cat. no.* Qty. | *17975.0* 25 | *17976.0* 25 |
| **Cable diameter Ø** | 3–12 mm | 7–18 mm |
| **Material** | Steel | Steel |

# MF-SABK/D
# Mounting foot for direct installation

The mounting foot for the **MF-SABK/D** shield-connection clip serves as a universal carrier for the **SABK/SABKM** with clamping diameters from 1.5 mm to 30 mm. It can be installed directly (e.g. screwed directly onto a mounting plate). The suitable **SABK** can then be snapped in and the cable shield can be pressed in.

## Your advantages

- Direct mounting using M4 screw
- Universal holder for SABK/SABKM, with cable clamping range from 1.5 mm to 30 mm
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

## Installation of the SABKM shield-connection bracket on the MF-SABK/D mounting foot



1. Screw on the mounting foot



2 Snap on your SABK



3. Press in the cable shield



4. Apply strain relief with cable ties

| Mounting foot | MF/D M4/Z | MF/D M4 |
|---|---|---|
|  |  |  |
| **Mounting type** | Direct mounting | Direct mounting |
| **Description** | With strain relief | Without strain relief |
| **Type** | **MF/D M4/Z** | **MF/D M4** |
| *Cat. no.* Qty. | *17977.0* 10 | *27217.0* 25 |
| **Material** | Steel | Steel |

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# RMF/D/Z M4
# Row-mounted foot for direct mounting

The **RMF/D/Z M4** row-mounted foot for direct mounting serves as a universal carrier for up to 12 shield-connection clips with clamping diameters from 1.5 mm to 30 mm. The row-mounted foot can be shortened to the desired length by breaking it at one of its breakage points. Either screws or rivets can be used to secure it in position.

## Your advantages

- Up to 12 cable shields can be attached to a single row-mounted foot.
- Space-saving installation on the mounting plate
- Universal holders for SABK/SABKM, with variable cable clamping ranges from 1.5 mm to 30 mm
- Breakage points permit versatile customization for your required number of cables.
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

**Installation of the SABKM shield-connection bracket on the MF-SABK/D mounting foot**
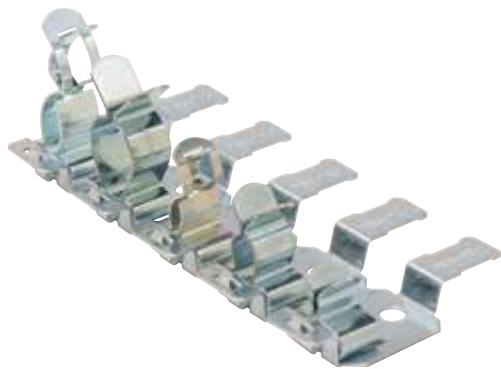


| Shield-connection bracket | | Row-mounted foot | |
|---|---|---|---|
|  | |  | |
| **Mounting type** | | Direct mounting | |
| **Description** | | With strain relief | |
| **Type** | | **RMF/D M4/Z** | |
| *Cat. no.* | **Qty.** | *17986.0* | **10** |
| **Material** | | Steel | |

# MF-SABK/SSCH
# Mounting foot for busbar installation

The **MF-SABK/SSCH** mounting foot for busbar mounting serves as a universal carrier for shield-connection clips with cable diameters from 1.5 mm to 30 mm. Simply snap the mounting foot onto the 10 x 3 mm busbar. Then snap in the corresponding shield-connection clip and press in the cable shield.

## Your advantages

- Tool-free mounting onto busbars 10 x 3 mm
- For shield-connection brackets with a 1.5 mm to 30 mm clamping range
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Very compact construction
- Cable tie can be used for strain relief

## Installation of the SABKM shield-connection bracket on the MF-SABK/SSCH mounting foot
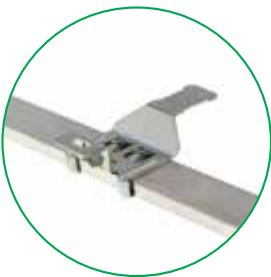


1. Screw on the mounting foot



2 Snap on your SABK



3. Press in the cable shield



4. Apply strain relief with cable ties

| Mounting foot | MF-SABK/SSCH/Z | MF-SABK/SSCH |
|---|---|---|
| | | |
| **Mounting type** | Busbar mounting | Busbar mounting |
| **Description** | With strain relief | Without strain relief |
| **Type** | **MF-SABK/SSCH/Z** | **MF-SABK/SSCH** |
| *Cat. no.* Qty. | *17979.0* 10 | *27218.0* 10 |
| **Material** | Steel | Steel |

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# MF-SABK/35
# Mounting foot for DIN rail installation

The **MF-SABK/35/Z** mounting foot for **TS 35** DIN rails serves as a universal carrier for shield-connection clips with clamping diameters from 1.5 mm to 30 mm.
Simply snap the mounting foot on the DIN rail. The properly sized shield-connection clip is then snapped on and the cable shield is pushed into the shield-connection clip. The variant with a strain relief clip provides cable ties to relieve the strain.

## Your advantages

- Tool-free mounting on TS 35 DIN rail
- Universal holder for SABK/SABKM, with cable clamping range from 1.5 mm to 30 mm
- Variable assembly options leads to less product types
- Less parts in your warehouse
- Cable tie can be used for strain relief

### Installation of the SABKM shield-connection bracket on the MF-SABK/35 mounting foot
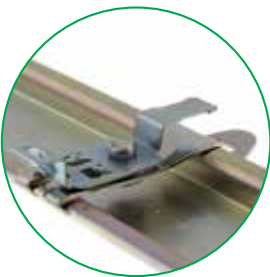


1. Screw on the mounting foot



2 Snap on your SABK



3. Press in the cable shield



4. Apply strain relief with cable ties

| Mounting foot | MF-SABK/35/Z | MF-SABK/35 |
|---|---|---|
|  |  |  |
| **Mounting type** | Mounting on the DIN rail | Mounting on the DIN rail |
| **Description** | With strain relief | Without strain relief |
| **Type** | **MF-SABK/35/Z** | **MF-SABK/35** |
| *Cat. no.* **Qty.** | *17978.0* **10** | *27261.0* **10** |
| **Material** | Steel | Steel |
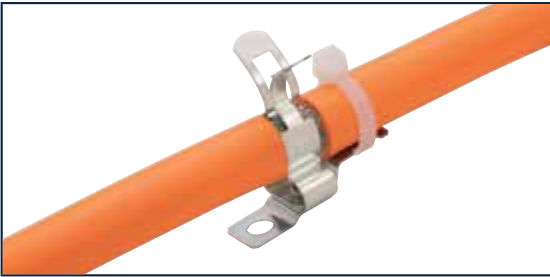
# Multi SABKM…/D
# Shield-connection clip for direct mounting

The **SABKM…/D** shield-connection clip can be installed directly (e.g. screwed directly onto a mounting plate). The cable shield must only be pressed into the **SABKM** in order to establish a reliable contact. The strain relief clip can be used with a cable tie to relieve strain at the cable sheath.

## Your advantages

- Direct mounting using M4 screw
- Very compact construction
- Reduced product types when the Multi shield-connection bracket is used
- Cable tie can be used for strain relief

| Shield-connection bracket | | SABKM…/D | SABKM…/D/Z | SABK…/D |
|---|---|---|---|---|
|  | |  |  |  |
| **Mounting type** | | Direct mounting | Direct mounting | Direct mounting |
| **Description** | | Without strain relief | With strain relief | Without strain relief |
| **Type** | | **SABKM 12/D M4** | **SABKM 12/D M4/Z** | **SABK 3/D M4** |
| *Cat. no.* | Qty. | *27246.0*           10 | *17984.0*           10 | *27263.0*           10 |
| **Cable diameter Ø** | | 3–12 mm | 3–12 mm | 1.5–3 mm |
| **Drill hole diameter Ø** | | 4.2 mm | 4.2 mm | 4.2 mm |
| **Material** | | Steel | Steel | Steel |
| **Type** | | **SABKM 18/D M4** | **SABKM 18/D M4/Z** | |
| *Cat. no.* | Qty. | *27247.0*           10 | *17985.0*           10 | |
| **Cable diameter Ø** | | 7–18 mm | 7–18 mm | |
| **Drill hole diameter Ø** | | 4.2 mm | 4.2 mm | |
| **Material** | | Steel | Steel | |
| **Type** | | **SABKM 30/D M4** | **SABKM 30/D M4/Z** | |
| *Cat. no.* | Qty. | *27248.0*           10 | *27220.0*           10 | |
| **Cable diameter Ø** | | 17–30 mm | 17–30 mm | |
| **Drill hole diameter Ø** | | 4.2 mm | 4.2 mm | |
| **Material** | | Steel | Steel | |
| **Type** | | **SABKM 35/D M4** | | |
| *Cat. no.* | Qty. | *27256.0*            5 | | |
| **Cable diameter Ø** | | 16–35 mm | | |
| **Drill hole diameter Ø** | | 4.2 mm | | |
| **Material** | | Steel | | |
| **Type** | | **SABKM 65/D M4** | | |
| *Cat. no.* | Qty. | *27257.0*            5 | | |
| **Cable diameter Ø** | | 35–65 mm | | |
| **Drill hole diameter Ø** | | 4.2 mm | | |
| **Material** | | Steel | | |

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# SAB…/D
# Shield-connection clip for direct mounting
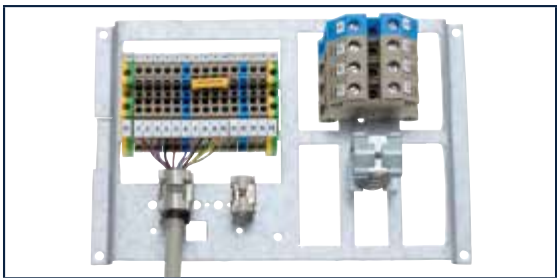
The **SAB…/D** shield-connection clip can be used for direct mounting installations. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact. The **SAB…/D** can be installed with an M4 screw (included in delivery) directly to the mounting plate.

The **SAB 8/D M5** shield-connection clip comes with a special feature; it is equipped with a self-cutting M5 SW3 metal screw. As a result, less time is required to mount the clip on the mounting plate, since you only need to drill one 4.2-mm hole through the plate. The hole threads will then be cut into the plate by the screw.

## Your advantages

- Quick snap-on or mounting of the shield-connection clip
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

| Shield-connection clip | SAB…/D | |
|---|---|---|
| Mounting type | Direct mounting | |
| **Type** | **SAB 8/D** | |
| *Cat. no.* **Qty.** | *1549.0* | **10** |
| **Cable diameter Ø** | 3–8 mm | |
| **Screw** | M 4 | |
| **Material** | Steel | |
| **Type** | **SAB 8/D/M5** | |
| *Cat. no.* **Qty.** | *1526.0* | **10** |
| **Cable diameter Ø** | 3–8 mm | |
| **Screw** | M 4 | |
| **Material** | Steel | |
| **Type** | **SAB 13.5/D** | |
| *Cat. no.* **Qty.** | *1550.0* | **10** |
| **Cable diameter Ø** | 4–13.5 mm | |
| **Screw** | M 4 | |
| **Material** | Steel | |
| **Type** | **SAB 20/D** | |
| *Cat. no.* **Qty.** | *1551.0* | **10** |
| **Cable diameter Ø** | 10–20 mm | |
| **Screw** | M 4 | |
| **Material** | Steel | |
| **Type** | **SAB 32/D** | |
| *Cat. no.* **Qty.** | *17361.0* | **10** |
| **Cable diameter Ø** | 15–32 mm | |
| **Screw** | M 4 | |
| **Material** | Steel | |
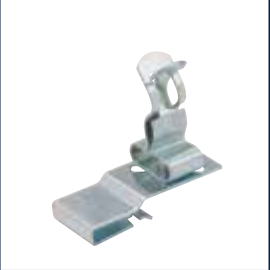
# SABKM…/SSCH M4
# Multi shield-connection clip on mounting foot for mounting to busbars

The Multi shield-connection clip on the mounting foot **SABKM…/SSCH M4** can be snapped onto a 10 x 3 mm busbar without any tools. The cable shield must only be pressed into the Multi shield-connection clip in order to establish a reliable contact. The strain relief clip can be used with a cable tie to relieve strain.

## Your advantages

- Tool-free mounting onto busbars 10 x 3 mm
- Extremely compact construction
- Cable tie can be used for strain relief

| Shield-connection bracket | SABKM…/SSCH | SABKM…/SSCH/Z | SABKMD…/SSCH | SABKMD…/SSCH/Z |
|---|---|---|---|---|
| Mounting type | Busbar mounting | Busbar mounting | Busbar mounting | Busbar mounting |
| Description | Without strain relief | With strain relief | Without strain relief | With strain relief |
| **Type** | **SABKM 12/SSCH** | **SABKM 12/SSCH/Z** | **SABKD 1.5-3/SSCH** | **SABKD 1.5-3/SSCH/Z** |
| Cat. no.          Qty. | *27224.0*          **10** | *17982.0*          **10** | *27250.0*          **10** | *27259.0*          **10** |
| Cable diameter Ø | 3–12 mm | 3–12 mm | 1.5–3 mm | 1.5–3 mm |
| Material | Steel | Steel | Steel | Steel |
| **Type** | **SABKM 18/SSCH** | **SABKM 18/SSCH/Z** | **SABKD 3-6/SSCH** | **SABKD 3-6/SSCH/Z** |
| Cat. no.          Qty. | *27225.0*          **10** | *17983.0*          **10** | *27251.0*          **10** | *27260.0*          **10** |
| Cable diameter Ø | 7–18 mm | 7–18 mm | 3–6 mm | 3–6 mm |
| Material | Steel | Steel | Steel | Steel |
| **Type** | **SABKM 30/SSCH** | **SABKM 30/SSCH/Z** | **SABKD 6-8/SSCH** | **SABKD 6-8/SSCH/Z** |
| Cat. no.          Qty. | *27226.0*          **10** | *27228.0*          **10** | *27252.0*          **10** | *27254.0*          **10** |
| Cable diameter Ø | 17–30 mm | 17–30 mm | 6–8 mm | 6–8 mm |
| Material | Steel | Steel | Steel | Steel |
| **Type** | | | **SABKMD 3-12/SSCH** | **SABKMD 3-12/SSCH/Z** |
| Cat. no.          Qty. | | | *27253.0*          **10** | *27255.0*          **10** |
| Cable diameter Ø | | | 3–12 mm | 3–12 mm |
| Material | | | Steel | Steel |

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# SAB
# Shield-connection clip for busbar mounting

The SAB shield-connection clips enable busbar mounting. After connecting the wiring, the shield-connection clip is mounted by simply swivelling in the **SAB** clip onto the busbar. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact. This makes the **SAB** shield-connection clip very convenient to wire. Depending on the length of the terminal blocks, two or more **SH/SAB** busbar supports should be used. These mechanically connect the front busbar with the DIN rail (support).

## Your advantages

- Quick snap-on or mounting of the shield-connection clip
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

| Shield-connection clip | SAB |
|---|---|
|  |  |
| **Mounting type** | Busbar mounting |
| **Type** | **SAB 8** |
| *Cat. no.*             **Qty.** | *1527.0*      **10** |
| **Cable diameter Ø** | 3–8 mm |
| **Material** | Steel |
| **Type** | **SAB 13.5** |
| *Cat. no.*             **Qty.** | *1528.0*      **10** |
| **Cable diameter Ø** | 4–13.5 mm |
| **Material** | Steel |
| **Type** | **SAB 20** |
| *Cat. no.*             **Qty.** | *1529.0*      **10** |
| **Cable diameter Ø** | 10–20 mm |
| **Material** | Steel |
| **Type** | **SAB 32** |
| *Cat. no.*             **Qty.** | *17360.0*      **10** |
| **Cable diameter Ø** | 15–32 mm |
| **Material** | Steel |

# SSAB
# Shield-connection clip for busbar mounting

The **SSAB** shield-connection clips enable busbar mounting. After wiring the terminal block, the shield-connection clip is mounted by simply swivelling in and tightening the knurled thumb screw. This makes the **SSAB** screw-shield-connection clip very convenient to wire. Depending on the length of the terminal blocks, two or more **SH/SAB** busbar supports should be used. These mechanically connect the front busbar with the DIN rail (support). The **SH1** busbar holders are used where a shield-connection system must be mounted directly onto a panel rather than a DIN rail. The 10x3mm busbars can be easily and quickly snapped on to these supports. In both cases, the contact with the earth or ground potential can be established with a **ZB** clamping yoke.

## Your advantages

- Screw-on clip for simple retrofitting
- Knurled thumb screw, so no tools required
- Easy to work with
- Large shield surface
- Secure contact

| Shield-connection clip for busbar mounting | SSAB | |
|---|---|---|
|  |  | |
| **Mounting type** | Busbar mounting | |
| **Type** | **SSAB 5** | |
| *Cat. no.*                          **Qty.** | *3694.0* | **10** |
| **Cable diameter Ø** | 2–5 mm | |
| **Torque** | 0.4 Nm | |
| **Material** | Steel | |
| **Type** | **SSAB 8** | |
| *Cat. no.*                          **Qty.** | *3695.0* | **10** |
| **Cable diameter Ø** | 3–8 mm | |
| **Torque** | 0.6 Nm | |
| **Material** | Steel | |
| **Type** | **SSAB 14** | |
| *Cat. no.*                          **Qty.** | *3696.0* | **10** |
| **Cable diameter Ø** | 3–14 mm | |
| **Torque** | 0.8 Nm | |
| **Material** | Steel | |
| **Type** | **SSAB 20** | |
| *Cat. no.*                          **Qty.** | *3697.0* | **10** |
| **Cable diameter Ø** | 3–20 mm | |
| **Torque** | 0.8 Nm | |
| **Material** | Steel | |
| **Type** | **SSAB 28** | |
| *Cat. no.*                          **Qty.** | *3698.0* | **10** |
| **Cable diameter Ø** | 5–28 mm | |
| **Torque** | 0.8 Nm | |
| **Material** | Steel | |
| **Type** | **SSAB 35** | |
| *Cat. no.*                          **Qty.** | *3699.0* | **10** |
| **Cable diameter Ø** | 20–35 mm | |
| **Torque** | 1.8 Nm | |
| **Material** | Steel | |

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# SAB…/GWP
# Shield-connection clip for C-rail

The **SAB…/GWP** shield-connection clips enable mounting to a C-rail. The **SAB…/GWP** is attached to the threaded plate with an Allen (hex socket) screw. The force on the cable comes from a spring-pressure piece. This regulated pressure ensures a constant optimal contact with the DIN rail.

## Your advantages

- Shield-connection clip is quickly mounted
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

| Shield-connection clip for C-rail | | SAB…/GWP | |
|---|---|---|---|
| **Mounting type** | | C-rail mounting | |
| **Type** | | **SAB 8/GWP** | |
| *Cat. no.* | **Qty.** | *17356.0* | **10** |
| **Cable diameter Ø** | | 3–8 mm | |
| **Material** | | Steel | |
| **Type** | | **SAB 13.5/GWP** | |
| *Cat. no.* | **Qty.** | *17357.0* | **10** |
| **Cable diameter Ø** | | 4–13.5 mm | |
| **Material** | | Steel | |
| **Type** | | **SAB 20/GWP** | |
| *Cat. no.* | **Qty.** | *17358.0* | **10** |
| **Cable diameter Ø** | | 10–20 mm | |
| **Material** | | Steel | |
| **Type** | | **SAB 32/GWP** | |
| *Cat. no.* | **Qty.** | *17359.0* | **10** |
| **Cable diameter Ø** | | 15–32 mm | |
| **Material** | | Steel | |

# SABKM…/MF/35
# Shield-connection clip for mounting to DIN rail

The Multi **SABKM…/MF/35** shield-connection clip on mounting foot can be snapped onto a **TS 35** DIN rail without using any tools. The cable shield must only be pressed into the Multi shield-connection clip in order to establish a reliable contact. The strain relief clip can be used with a cable tie to relieve strain.

## Your advantages

- Simple tool-free installation
- Spring force provides consistently good contact to the cable shield
- Very good dissipation of high-frequency interference current
- Cable tie can be used for strain relief

| Shield-connection bracket | | SABK …/MF/35 | | SABK …/MF/35/Z | |
|---|---|---|---|---|---|
|  | |  | |  | |
| **Mounting type** | | Mounting on the DIN rail | | Mounting on the DIN rail | |
| **Description** | | Without strain relief | | With strain relief | |
| **Type** | | **SABK 3/MF/35** | | **SABK 3/MF/35/Z** | |
| *Cat. no.* | Qty. | *27229.0* | 10 | *27240.0* | 10 |
| **Cable diameter Ø** | | 1.5–3 mm | | 1.5–3 mm | |
| **Type** | | **SABK 6/MF/35** | | **SABK 6/MF/35/Z** | |
| *Cat. no.* | Qty. | *27230.0* | 10 | *27241.0* | 10 |
| **Cable diameter Ø** | | 3–6 mm | | 3–6 mm | |
| **Type** | | **SABK 8/MF/35** | | **SABK 8/MF/35/Z** | |
| *Cat. no.* | Qty. | *27231.0* | 10 | *27242.0* | 10 |
| **Cable diameter Ø** | | 6–8 mm | | 6–8 mm | |
| **Type** | | **SABK 11/MF/35** | | **SABK 11/MF/35/Z** | |
| *Cat. no.* | Qty. | *27232.0* | 10 | *27243.0* | 10 |
| **Cable diameter Ø** | | 8–11 mm | | 8–11 mm | |
| **Type** | | **SABK 16/MF/35** | | **SABK 16/MF/35/Z** | |
| *Cat. no.* | Qty. | *27233.0* | 10 | *27244.0* | 10 |
| **Cable diameter Ø** | | 11–16 mm | | 11–16 mm | |
| **Type** | | **SABK 30/MF/35** | | **SABK 30/MF/35/Z** | |
| *Cat. no.* | Qty. | *27234.0* | 10 | *27245.0* | 10 |
| **Cable diameter Ø** | | 17–30 mm | | 17–30 mm | |
| **Type** | | **SABKM 12/MF/35** | | **SABKM 12/MF/35/Z** | |
| *Cat. no.* | Qty. | *27237.0* | 10 | *17980.0* | 10 |
| **Cable diameter Ø** | | 3–12 mm | | 3–12 mm | |
| **Type** | | **SABKM 18/MF/35** | | **SABKM 18/MF/35/Z** | |
| *Cat. no.* | Qty. | *27238.0* | 10 | *17981.0* | 10 |
| **Cable diameter Ø** | | 7–18 mm | | 7–18 mm | |
| **Type** | | **SABKM 35/MF/35** | | | |
| *Cat. no.* | Qty. | *27239.0* | 5 | | |
| **Cable diameter Ø** | | 16–35 mm | | | |
| **Type** | | **SABKM 65/MF/35** | | | |
| *Cat. no.* | Qty. | *27258.0* | 5 | | |
| **Cable diameter Ø** | | 35–65 mm | | | |

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# SAB.../F
# Shield-connection clip for mounting to DIN rail

The **SAB.../F** shield-connection clips enable mounting to the DIN rail. The force exerted on the cable is regulated by a spring-loaded thrust piece. This ensures optimum contact at all times. The **SAB../F** can be mounted directly to the **TS 35** DIN rail using the clamping foot and a mounting screw.

## Your advantages

- Shield-connection clip is quickly mounted
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with

| Shield-connection clip | | SAB 8/F | SAB 13.5/F | SAB 20/F |
|---|---|---|---|---|
| Mounting type | | Mounting on the DIN rail | Mounting on the DIN rail | Mounting on the DIN rail |
| Type | | SAB 8/F | SAB 13.5/F | SAB 20/F |
| *Cat. no.* | **Qty.** | *1571.0*     **10** | *1572.0*     **10** | *1573.0*     **10** |
| Cable diameter Ø | | 3–8 mm | 4–13.5 mm | 10–20 mm |
| Size (L x W x H), mm | | 18.5 x 13 x 26.5 | 22 x 19.5 x 32.5 | 27 x 13 x 26.5 |
| Material | | Steel | Steel | Steel |

# SAB.../MF
# Shield-connection clip for mounting to DIN rail

The **SAB.../MF/35** shield-connection clips enable mounting to the DIN rail. The **SAB.../MF/35** is snapped on directly via the internal-spring **MF/35** mounting foot without using any tools. The force exerted on the cable is regulated by a spring-loaded thrust piece. This ensures that optimal contact is maintained with the DIN rail at all times.

## Your advantages

- Simple tool-free installation
- Different cable cross-sections can be accommodated by the elastic nature of the spring
- Easy to work with
- /S version can be rotated and fixed in position using the fastening screw

| Shield-connection clip | SAB.../MF/35 | SAB.../MF/35/S |
|---|---|---|
| |  |  |
| **Mounting type** | Mounting on the DIN rail | Mounting on the DIN rail |
| **Type** | **SAB 8/MF/35** | **SAB 8/MF/35/S** |
| *Cat. no.*    Qty. | *17038.0*    **10** | *17340.0*    **10** |
| **Cable diameter Ø** | 3–8 mm | 3–8 mm |
| **Size (L x W x H), mm** | 18.5 x 13 x 26.5 | 18.5 x 13 x 26.5 |
| **Material** | Steel | Steel |
| **Type** | **SAB 13.5/MF/35** | **SAB 13.5/MF/35/S** |
| *Cat. no.*    Qty. | *17039.0*    **10** | *17341.0*    **10** |
| **Cable diameter Ø** | 4–13.5 mm | 4–13.5 mm |
| **Size (L x W x H), mm** | 22 x 19.5 x 32.5 | 22 x 19.5 x 32.5 |
| **Material** | Steel | Steel |
| **Type** | **SAB 20/MF/35** | **SAB 20/MF/35/S** |
| *Cat. no.*    Qty. | *17040.0*    **10** | *17342.0*    **10** |
| **Cable diameter Ø** | 10–20 mm | 10–20 mm |
| **Size (L x W x H), mm** | 27 x 24.5 x 40.5 | 27 x 24.5 x 40.5 |
| **Material** | Steel | Steel |
| **Type** | **SAB 32/MF/35** | **SAB 32/MF/35/S** |
| *Cat. no.*    Qty. | *17363.0*    **10** | *17343.0*    **10** |
| **Cable diameter Ø** | 15–32 mm | 15–32 mm |
| **Size (L x W x H), mm** | 53.2 x 33 x 71.5 | 53.2 x 33 x 71.5 |
| **Material** | Steel | Steel |

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# Busbar holder

Busbar holders are used for mounting all shield-connection clips with 10 x 3 mm busbars. These can be mounted quickly and flexibly according to your requirements. The **SH1** busbar holders are used where a shield-connection system must be mounted directly onto a panel rather than a DIN rail. The 10 x 3 mm busbars can be easily and quickly snapped on to these supports.

The **SH/SAB** busbar holders mechanically connect the preceding busbar with the DIN rail. Thus, the shield-connection clip can easily be extended directly to the terminal strip.

The **ES 35/K/ST** end support with its integrated receptacles enables you to easily mount 10 x 3 mm busbars directly above a **TS 35** DIN rail.

Depending on the length, two or more holders can be used. In both cases, the contact with the earth or ground potential can be established with a **ZB** clamping yoke.

| Busbar holder | | SH 1 | SH SAB | ES 35/K/ST |
|---|---|---|---|---|
|  | |  |  |  |
| **Type/colour** | | **SH 1 BG** | **SH SAB BG** | **ES 35/K/ST BG** |
| *Cat. no.* | **Qty.** | *2318.2*　　**20** | *1530.2*　　**10** | *2828.0*　　**50** |
| **Size (L x W x H), mm** | | 24 x 24 x 23.7 | 50 x 9.5 x 98 | 50 x 9.5 x 44 |
| **Material of cap/holder** | | PA 6.6 V-2 | PA 6.6 V-2 | PA 6.6 V-2 |
| **Accessories** | | | | |
| **Mounting screw BS** | | **BS M 4x8** | | |
| *Cat. no.* | **Qty.** | *2262.0*　　**20** | | |
| **Busbar**　**Ssch**　**Copper** | | **Ssch 10 x 3 CU** | **Ssch 10 x 3 CU** | **Ssch 10 x 3 CU** |
| *Cat. no.* | **Qty.** | *2129.0*　　**1 m** | *2129.0*　　**1 m** | *2129.0*　　**1 m** |
| **Busbar**　**Ssch**　**Brass** | | **Ssch 10 x 3 Ms** | **Ssch 10 x 3 Ms** | **Ssch 10 x 3 Ms** |
| *Cat. no.* | **Qty.** | *2128.0*　　**1 m** | *2128.0*　　**1 m** | *2128.0*　　**1 m** |

# Types and catalogue numbers, alphabetic

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