

Product Overview

# Cable Management Systems



Encompass<sup>™</sup>  
Product Partner

A ROCKWELL AUTOMATION PARTNER  
Americas

A company of the icotek group

## Cable Entry Systems & Cord Grips for Cables with Connectors



Split grommets

The patented cable entry systems enable the user to enter, seal and provide strain relief for pre-connectorized and standard cables. The split system of the new metric cord grips KVT-ER enables a quick and easy assembly which is great for retrofitting and maintenance.

The key feature of icotek's patented systems is the split frame and split grommets which provide quick, convenient and cost effective routing of pre-connectorized and standard cables. The split frame and split grommets alleviate the need to cut and re-wire pre-connectorized cables. Therefore, cable warranties are unaffected. Cables, pipes and conduits with various diameters can be routed due to large variety of split grommets. When assembled correctly, the split grommets are held tightly within the frame. Correctly sizing the grommet to the cable diameter ensures a high degree of protection (up to IP66 / IP68 / UL type 4X) and provides strain relief.

### Advantages & Benefits

- Certified ratings up to IP66 / IP68 / UL type 4X
- Warranty of pre-terminated cables remains
- Quick and easy assembly
- Retrofits, repairs and maintenance can be done much more easily and quickly
- High cable density, wide variety of frames and grommets
- Suitable for industrial standard and metric cut-outs
- Strain relief according to EN 62444
- Vibration resistant, high stability



## Cable Entry Plates for Cables without Connectors



Membrane on front



Conical shape on back provides additional sealing and strain relief

With the membrane based cable entry plates standard cables with diameters from 1,5 to 22 mm can be quickly routed into control panels, enclosures or machines and be sealed with protection class up to IP66 / IP68 / UL type 4X. In comparison to traditional solutions such as standard cord grips the cable density is greatly increased. This combined with a reduction of required space make the icotek solution a great choice.

For routing supply lines with diameters of up to 115 mm icotek offers innovative pyramid shaped cable entry grommets which are perfectly flexible for feeding rigid supply cables at angles with very little effort.

### Advantages & Benefits

- Space saving shape
- Certified protection class up to IP66 / IP68 / UL type 4X
- Rugged design
- High strain relief
- High cable density
- Assembly within seconds
- Suitable for industrial standard and metric cut-outs
- Hygienic design – flat and smooth surface
- Halogen free, silicone free



## Strain Relief & Cable Management

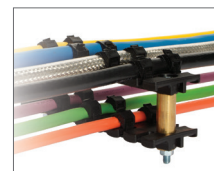
Whenever cables, wires, hoses or conduits with diameters up to 20 mm have to be fixed, routed or strain relieved the icotek strain relief plates are used. With just one component you can route and strain relieve up to 12 of these lines, in static or dynamic applications.

Fixation of the cables is achieved by using standard cable ties. The undercut on the comb shaped profile provides secure strain relief according to EN 62444.

Compared to conventional metal or plastic cable clamps the icotek strain relief plates are a much more flexible and cost-effective solution. Because of the different variations of mounting rail and screw type assemblies, the system can be used for organizing and securing cables e.g. in machines, electrical enclosures, control panels or dynamic cable carriers.

### Advantages & Benefits

- Strain relief according to EN 62444
- Easy assembly
- Cost-effective
- High cable density
- Wide variety of mounting options



Increased cable density due to distance bushings



Also available with inlay bushings in brass / aluminum

## EMC Shield Clamps & Grounding Components

For process measurement and control equipment an increasingly higher level of protection against failure is required. EMI shielding and grounding is very important. The area where the cable shield is connected to the ground potential is a critical point. It is very important that the connection has a low resistance. The EMC cable clamps offer a large contact area to the cable shield (see figure A). In comparison to conventional shielding brackets an up to 50% higher contact area can be achieved when using the SKL line (see figure B). The specified clamping range can be exceeded up to 10%.

SKL shield clamps are available for several mounting types like screwing them on metal plates or mounting them on DIN rails or bus bars. Properly sized and used in conjunction with cable ties, many EMC cable shielding products provide strain relief in accordance with EN 62444.

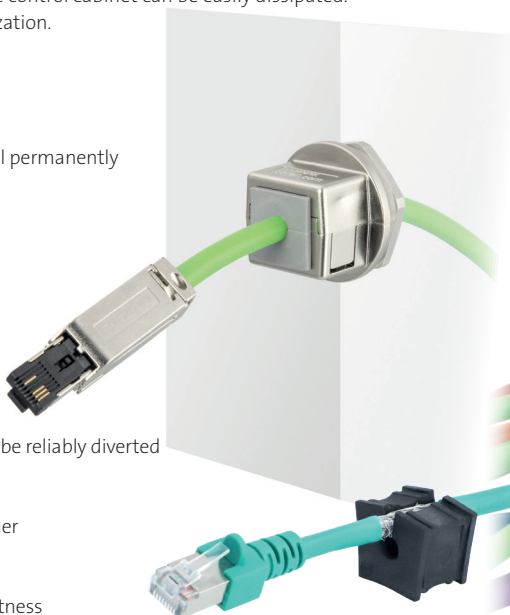
The cable entry frames EMC-KEL are based on the icotek products KEL-U and KEL-E. Due to a conductive surface, faults in the cable shields on the control cabinet can be easily dissipated. Field bound disturbances are derived by the metallization.

### Advantages & Benefits: SKL

- Large contact area
- The spring design requires no adjustments and will permanently maintain contact to the cable shield
- Large variety of assembly methods
- Many types with integrated strain relief
- Shock and vibration resistant, maintenance free
- Simple and mostly tool-free assembly
- Designed for high density applications

### Advantages & benefits: EMC-KEL/EMC-KVT

- Both conducted and field-bound disturbances can be reliably diverted
- Very attractive and scratch-resistant surface
- Contacting the cable shield over 360°
- Grommets made entirely from conductive elastomer
- High cable density
- Very good dissipation values
- Very good shielding effect with regard to EMC tightness



Standard solution:

icotek solution:

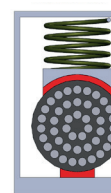


Fig. A: Conventional systems

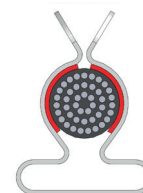
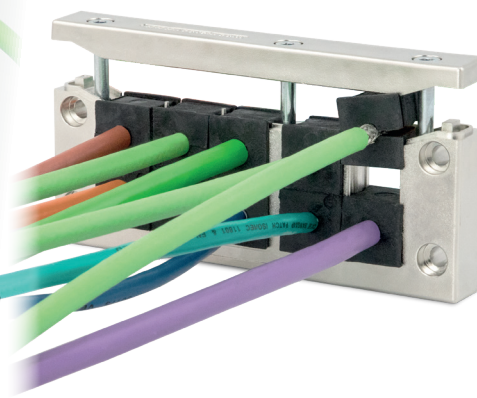


Fig. B: SKL-line  
50% larger contact area



## CONFiX Cable Conduit System

**IP54**

**RoHS**  
compliant

**Made in**  
Germany



The 90° angled conduit fitting CONFiX FWS is perfect for installation of parallel corrugated cable protection conduits, e.g. in machines, control panels or control cabinets. The liftable cover is tightly fixed by a hinge to the mounting box. Therefore, the system is very easy to handle.

Corrugated conduits CONFiX WS for cable routing are used where cables have to be protected from mechanical damage or certain weather conditions.

In addition, icotek offers split corrugated conduits CONFiX WST for routing pre-terminated cables and corresponding conduit clips CONFiX SH.

## Electrical Enclosure Accessories



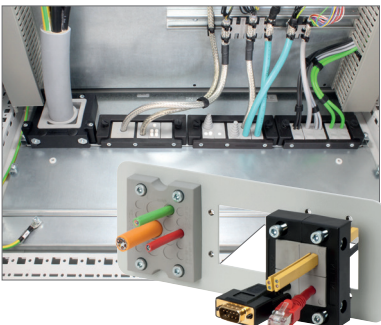
up to  
**IP65**

up to  
**UL TYPE**  
**12**

**HL3**  
EN 45545-2

**RoHS**  
compliant

**Made in**  
Germany



For assembly of cable entry systems and EMC products icotek offers many useful accessories as well as helpful cable management components.

Flange plates with cut outs e.g. for Rittal AE enclosures or KL terminal boxes as well as base plates for electrical enclosures by Hoffman & Rittal make work much easier by far.

10 x 3 mm bus bars and many more clever solutions like cable ties with hook-and-loop fastener that can be opened and closed numerous times as well as suitable holders and more round up our portfolio.



## icotek TOOLS – Punch Driver & Knockout Punches



icotek offers a small-sized hand hydraulic punch driver without hose which allows quick and easy punching of rectangular, square or round holes into stainless steel, mild steel, aluminum and plastics. The holes fit exactly the cut-out dimensions of most icotek cable entry systems. When you have to punch several holes, this hand hydraulic punch driver is much faster than manual wrench-style punches.

Additionally, icotek offers round knockout punches for cut-outs PG 16, M16 - M85 as well as rectangular and square punches and dies for cut-out sizes of 10-, 16-, and 24- multi-pin industrial connectors and for special cut-outs of some icotek cable entry components.

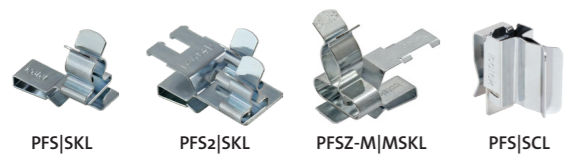


## EMC Cable Shield Clamps

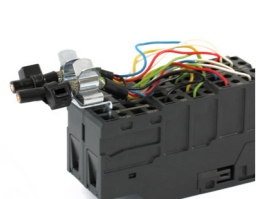
EMC shield clamps  
for bus bars  
PFSZ|SKL



Other products



EMC terminal clamps  
for peripheral modules  
STFZ



Other products



EMC shield clamps  
for DIN rails  
SF|SKL



Other products



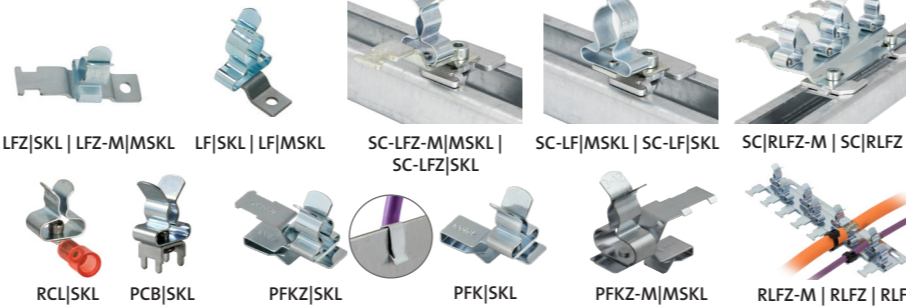
EMC shield clamps, single  
SKL | MSKL



EMC shield clamps  
for direct assembly  
LFZ-U|SKL



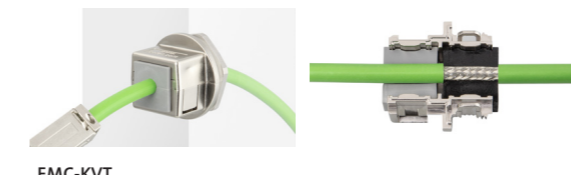
Other products



EMC cable entry frames  
for cables with & without connectors  
EMC-KEL



EMC-KEL-U  
EMC-KVT



## CONFiX Cable Conduit System

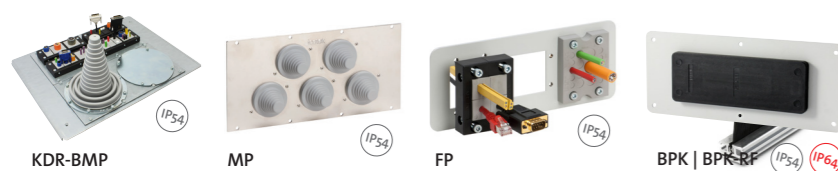
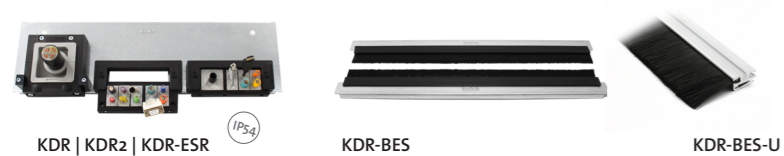
Bulkhead fitting  
CONFiX FWS



Other products



## Electrical Enclosure Accessories



## Cable Entry Systems & Cord Grips for Cables with Connectors

Split cable entry frame  
KEL-ER



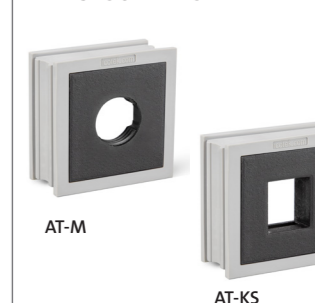
Split cord grip  
KVT-ER



Other products



Modular adapter system  
IMAS-CONNECT™

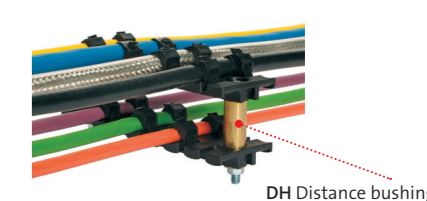


# Cable Entry Systems EMC Solutions

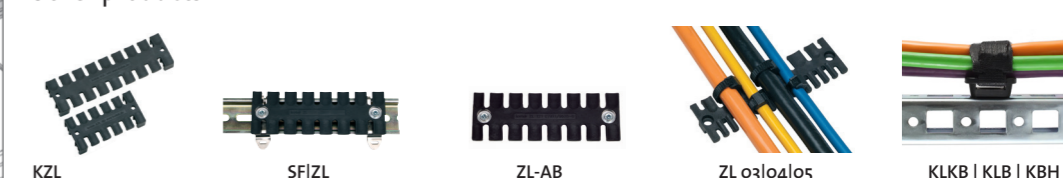
www.icotek.com

## Strain Relief & Cable Management

Strain relief plates  
ZL

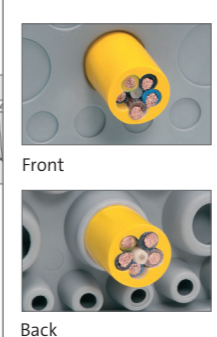


Other products



## Cable Entry Plates for Cables without Connectors

Cable entry plate  
KEL-DPZ



KEL-SCDP/ KEL-SCDP-RW



Other products

