



Cable entry plates for pre-assembled cables



System overview



KDL / E cable entry system

The KDL/E cable entry system represents further development of the third KDL generation. The advantage here is quicker assembly at double the capacity. Optionally, the KDL/E can additionally be snapped in. **Page 13**



KDL cable entry system

The KDL cable entry system is a split system that allows pre-assembled cables to be routed into an enclosure without disassembling the connectors. **Page 23**



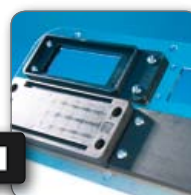
KDL / EMC cable entry system

The KDL/EMC is the metal version of the KDL. Sheath currents of shielded cables can be simply discharged in several different ways here. **Page 39**



Cable entry system KDL / S

The cable entry system type KDL/S is a special custom-prepared plate. It fits into cut-outs for 16-pole connectors. **Page 49**

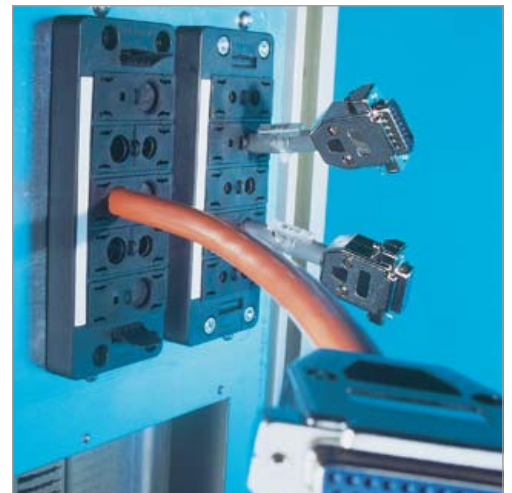


Accessories for cable entry systems/ panels KDL / KDP

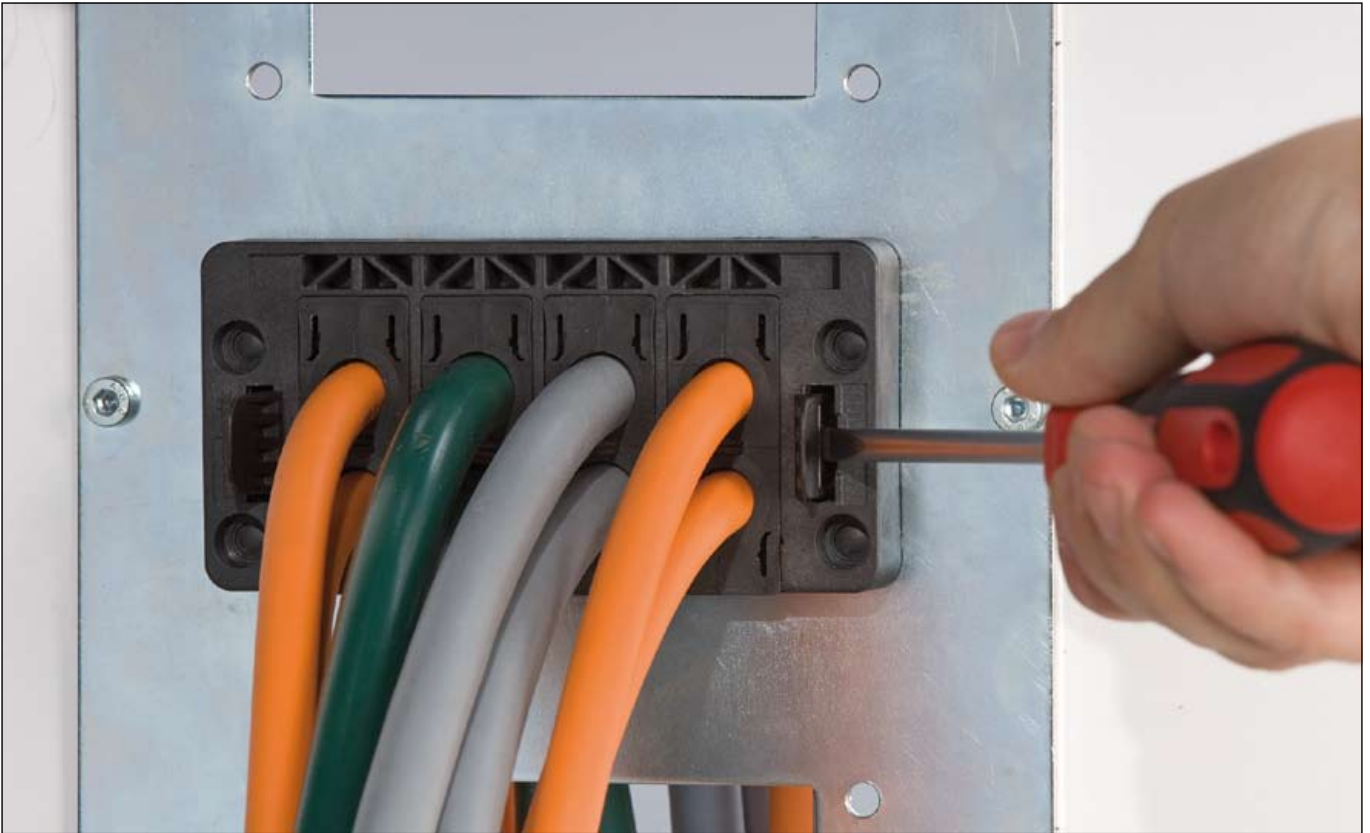
Under accessories you will find various blanking plates, floor sheeting, adapter plates for cut-out reduction and discharge plates for EMC applications. **Page 129**



KDL/E cable entry system



Advantages



We go at everything head first

Even faster and simpler assembly of pre-fabricated conduits.

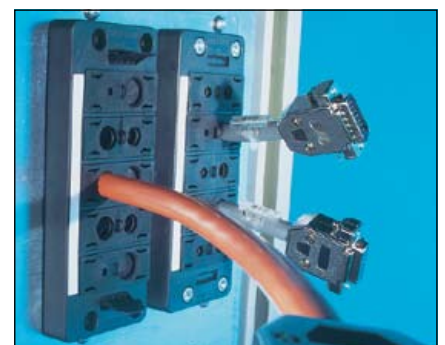
The KDL/E replaces the well established KDL/N model.

The single-piece frame no longer needs to be joined together.

The provided catch hooks significantly speed up mounting of the entire plate, e.g. on the control cabinet.

Vario grommets reduce the need for grommets with different diameters.

This ultimately means significantly simpler and quicker assembly in general.



- ✓ Cable insertion without interruption
- ✓ Simple mounting
- ✓ Single-piece frame
- ✓ Snap-in from 1.5 – 4.1 mm
- ✓ No need to screw on
- ✓ Strain relief
- ✓ Protection class IP 54



Cable entry system, type KDL / E

The KDL / E cable entry system represents further development of the third KDL generation. The advantage here is quicker assembly at double the capacity. Optionally, the KDL / E can additionally be snapped in. **Page 17**



Cable entry grommets, type KDT / xE

In conjunction with the KDL / E cable entry system, the KDT / xE cable entry grommet can be used to easily route pre-assembled cables e.g. in control cabinets. **Page 18**



**Snap-on mounting
Screw-on mounting**

Detailed construction and assembly instructions for the snap-on/screw-on fittings. **Page 20**



KDL / E cable entry system

Selection table (possible combinations of cable entry systems and grommets)

Matching cable entry grommets:

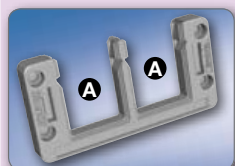
Types • KDT/ZE • KDT/VE • ATG/E • SDT/ZE • BTK/E • BTG/E

Grommet, large **A**

for cables 16–31 mm in diameter

Grommet, small **B**

for cables 3–16 mm in diameter



KDL/E 16/2
Item no. 87121010

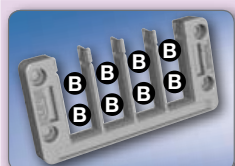
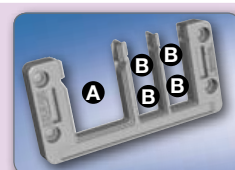
2

0

1

4

KDL/E 16/5
Item no. 87121012



KDL/E 16/8
Item no. 87121014

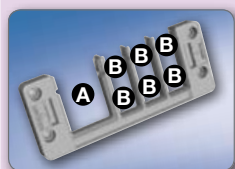
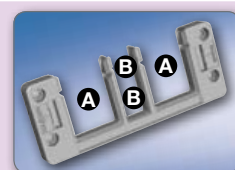
0

8

2

2

KDL/E 24/4
Item no. 87121016



KDL/E 24/7
Item no. 87121018

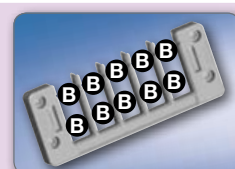
1

6

0

10

KDL/E 24/10
Item no. 87121020



Material data for the entire system (cable entry systems with grommets)



Halogen-free



Phosphorous-free



Cadmium-free



Asbestos-free



Lead-free



Silicone-free



All components of the entire grommet-configured system KDL/E conform with ROHS and are characterised by the IP class 54 (except for double cable grommets).

Additionally all components are free of halogen, phosphorous, cadmium, asbestos, lead and silicone.

The entire system can be used within

temperature range of -40°C to 80°C (transient to 100°C) and features the fire classification HB.

All system components feature an UR approval.

The cable entry systems type KDL/E are made of polyamide 6.6, the corresponding grommets care made of thermoplastic rubber.

Cable entry system, type KDL / E

Made in Germany
RoHS compliant



System
-40 – 80 °C, transient 100 °C



Polyamide 6.6



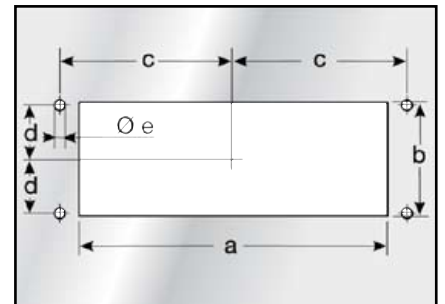
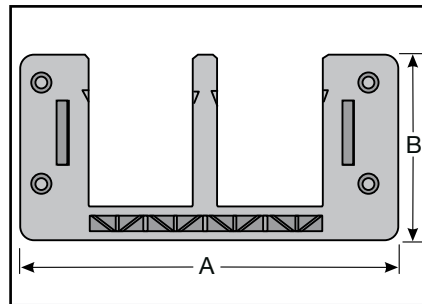
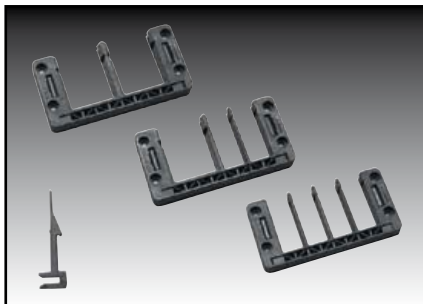
V0



IP 54
(with suitable grommets and cables)

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

- Even quicker mounting of pre-assembled cables
- Snap in, meaning screwing on is no longer absolutely necessary
- Catch hook for 1.5 – 2.0 mm plate thickness included with delivery, additional catch hooks for up to 4.1 mm plate thickness available.
- Fits standard cut-outs for connectors (e.g. Harting, Wieland and Rittal).
- Simple realization of EMC solution with discharge plate



KDL/E...

Type	Order no.	Colour	No. openings small / large	Installation height mm	For plate thickness mm	A mm	B mm	a mm	b mm	c mm	d mm	e mm	Pack qty.
for standard cut-outs, size 16													
KDL/E 16/2	87121010	black	- / 2	15.5	-	116.0	58.0	86.0	36.0	51.5	16.0	5.5	1
KDL/E 16/5	87121012	black	4 / 1	15.5	-	116.0	58.0	86.0	36.0	51.5	16.0	5.5	1
KDL/E 16/8	87121014	black	8 / -	15.5	-	116.0	58.0	86.0	36.0	51.5	16.0	5.5	1
If catch hooks are used, then the width of the cut-out must be enlarged by 91 mm.													
for standard cut-outs, size 24													
KDL/E 24/4	87121016	black	2 / 2	15.5	-	146.0	58.0	112.0	36.0	65.0	16.0	5.5	1
KDL/E 24/7	87121018	black	6 / 1	15.5	-	146.0	58.0	112.0	36.0	65.0	16.0	5.5	1
KDL/E 24/10	87121020	black	10 / -	15.5	-	146.0	58.0	112.0	36.0	65.0	16.0	5.5	1
Matching adapter plates or floor sheeting													
See chapter "Accessories for cable entry systems and plates"													
Replacement parts:													
Catch hooks 1.5 – 2.0 mm	8712102000	black	-	1.5 – 2.0									10
Catch hooks 2.1 – 2.7 mm	8712101800	black	-	2.1 – 2.7									10
Catch hooks 2.8 – 3.4 mm	8712101600	black	-	2.8 – 3.4									10
Catch hooks 3.5 – 4.1 mm	8712101400	black	-	3.5 – 4.1									10
Matching grommets KDT/ZE; KDT/VE; ATG/E; SDT/ZE; BTK/E; BTG/E													
Matching EMC discharge plate, type KDL/N-AB... in chapter "Accessories for cables entry systems and plates"													
Matching label plate, type KS KDL/E, see catalogue ACS.													
The correct tool for completing the cutaway can be found in the chapter on "Punching tools".													





KDL/E cable entry system

Cable entry grommets, type KDT/xE



-40 – 80 °C, transient 100 °C



Thermoplastic rubber



HB

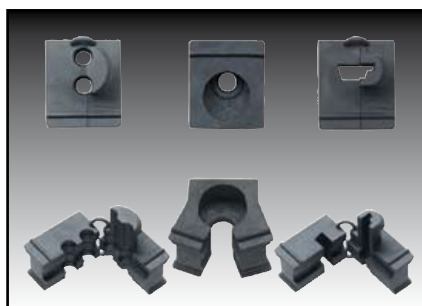


IP 54
(with matching cables)

In conjunction with the KDL/E cable entry system, the KDT/xE cable entry grommet can be used to easily route pre-assembled cables e.g. in control cabinets. The grommet is 2-pce. and is positioned around the cable. The grommets are equipped with catch hooks that anchor themselves in the KDL/E when positioning. Strain relief for type KDT/ZE is achieved using a simple cable tie. Type KDT/VE is a vario grommet without strain relief which covers a larger clamping range.



Standard grommets



Special grommets



Type	Order no.	Colour	For Ø mm	For entry small / large	No. Openings	Suitable for conduit	Pack qty.
Grommet, small							
KDT/ZE 03	87121210	black	3 – 4	● / -	1		10
KDT/ZE 04	87121212	black	4 – 5	● / -	1		10
KDT/ZE 05	87121214	black	5 – 6	● / -	1		10
KDT/ZE 06	87121216	black	6 – 7	● / -	1		10
KDT/ZE 07	87121218	black	7 – 8	● / -	1		10
KDT/ZE 08	87121220	black	8 – 9	● / -	1		10
KDT/ZE 09	87121222	black	9 – 10	● / -	1		10
KDT/ZE 10	87121224	black	10 – 11	● / -	1		10
KDT/ZE 11	87121226	black	11 – 12	● / -	1		10
KDT/ZE 12	87121228	black	12 – 13	● / -	1		10
KDT/ZE 13	87121230	black	13 – 14	● / -	1		10
KDT/ZE 14	87121232	black	14 – 15	● / -	1		10
KDT/ZE 15	87121234	black	15 – 16	● / -	1		10
Grommet, large							
KDT/ZE 16	87121236	black	16 – 17	- / ●	1		10
KDT/ZE 17	87121238	black	17 – 18	- / ●	1		10
KDT/ZE 18	87121240	black	18 – 19	- / ●	1		10
KDT/ZE 19	87121242	black	19 – 20	- / ●	1		10
KDT/ZE 20	87121244	black	20 – 21	- / ●	1		10
KDT/ZE 21	87121246	black	21 – 22	- / ●	1		10
KDT/ZE 22	87121248	black	22 – 23	- / ●	1		10
KDT/ZE 23	87121250	black	23 – 24	- / ●	1		10
KDT/ZE 24	87121252	black	24 – 25	- / ●	1		10
KDT/ZE 25	87121254	black	25 – 26	- / ●	1		10
KDT/ZE 26	87121256	black	26 – 27	- / ●	1		10
KDT/ZE 27	87121258	black	27 – 28	- / ●	1		10



Cable entry grommets, type KDT/xE



Type	Order no.	Colour	For Ø mm	For entry small / large	No. Openings	Suitable for conduit	Pack qty.
KDT/ZE 28	87121260	black	28 – 29	- / ●	1		10
KDT/ZE 29	87121262	black	29 – 30	- / ●	1		10
KDT/ZE 30	87121264	black	30 – 31	- / ●	1		10
Variable cable grommet (Protection class IP 42)							
KDT/VE 3-7 *	87121272	black	3 – 7	● / -	1		10
KDT/VE 7 – 10 *	87121274	black	7 – 10	● / -	1		10
Double cable grommet							
KDT/ZE 2x4 *	87121284	black	4 – 4.5	● / -	2		10
KDT/ZE 2x5 *	87121286	black	5 – 5.5	● / -	2		10
KDT/ZE 2x6 *	87121288	black	6 – 6.5	● / -	2		10
ASI grommet							
KDT/ZE 2xASI *	87121280	black	ASI cable	● / -	2		10
KDT/ZE ASI *	87121282	black	ASI cable	● / -	1		10
Adapter grommet							
ATG/E *	87121268	black	Adapter for small grommet	- / ●	1		10
Conduit grommet							
SDT/ZE 07 *	87174250	black		● / -	1	EW-M10/P7	10
SDT/ZE 09 *	87174252	black		● / -	1	EW-M12/P9	10
SDT/ZE 11 *	87174254	black		● / -	1	EW-M16/P11	10
SDT/ZE 16 *	87174256	black		- / ●	1	EW-M20/P16	10
SDT/ZE 21 *	87174258	black		- / ●	1	EW-M25/P21	10
xx = PA or PP							
Dummy grommet							
BTK/E *	87121266	black	Dummy grommet, small	● / -	0		10
BTG/E *	87121270	black	Dummy grommet, large	- / ●	0		10

* no UR authorisation

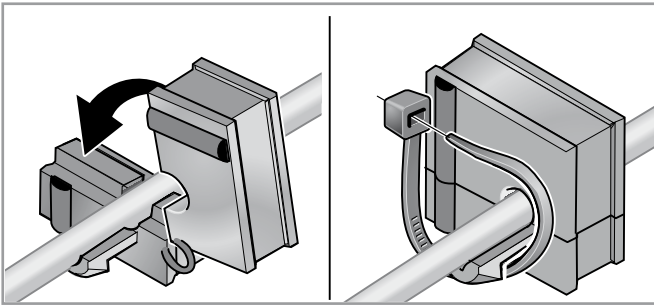
Grommets match: KDL/E 16; KDL/E 24



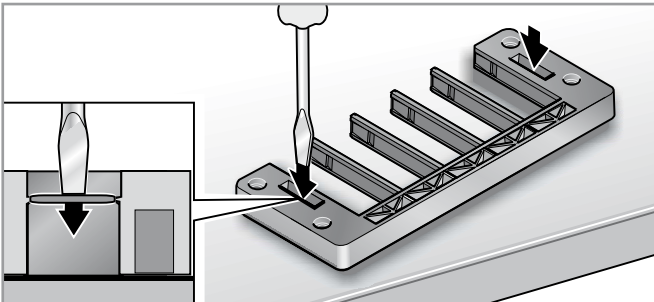


KDL/E cable entry system

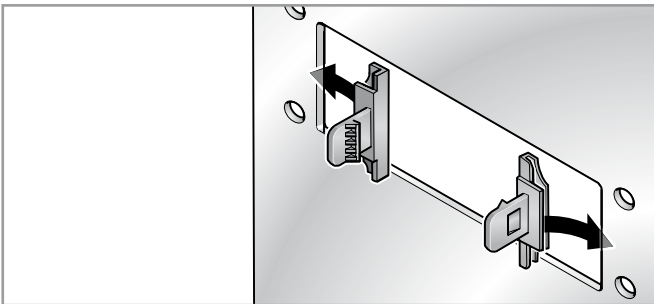
Snap-on mounting



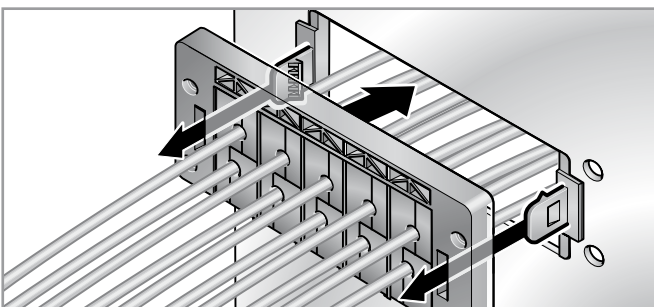
Lay the cable into an appropriate grommet and provide strain relief where necessary using cable ties.



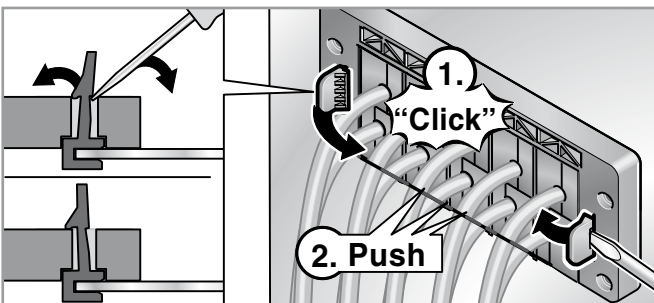
Use appropriate tool to punch through cover on base frame.



Set catch hooks into the sides of the cut-out. Mind the plate thickness.

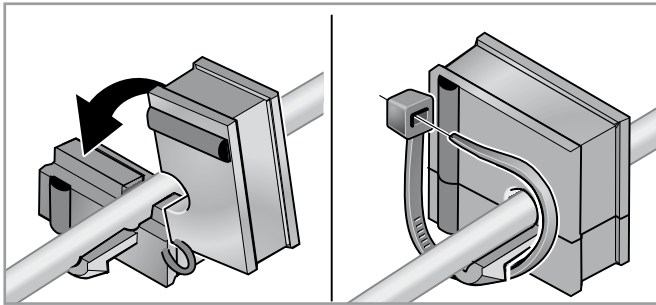


Insert rail completely. The grommet must produce a continuous seal on the back side. Set the rail onto the catch hooks and press on.

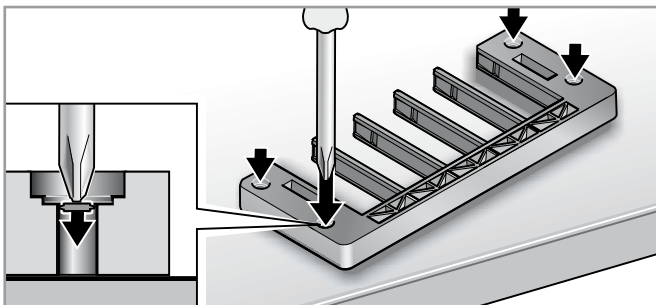


Lock the catch hooks with the rail. Press gently on the grommets one more time.

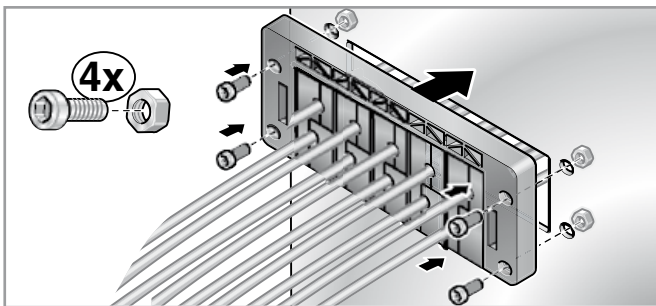
Screw-on mounting



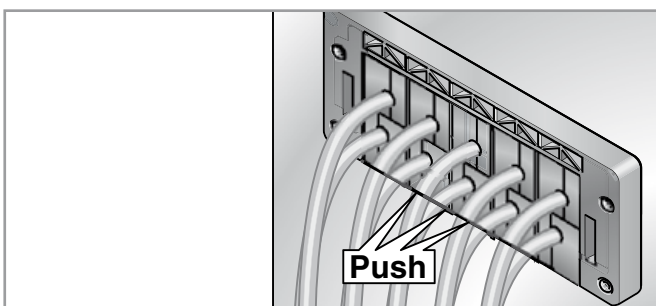
Lay the cable into an appropriate grommet and provide strain relief where necessary using cable ties.



Use appropriate tool to punch through cover on base frame.



Insert rail completely. The grommet must produce a continuous seal on the back side. Fix rail with 4 screws. Do not exceed the maximum torque.



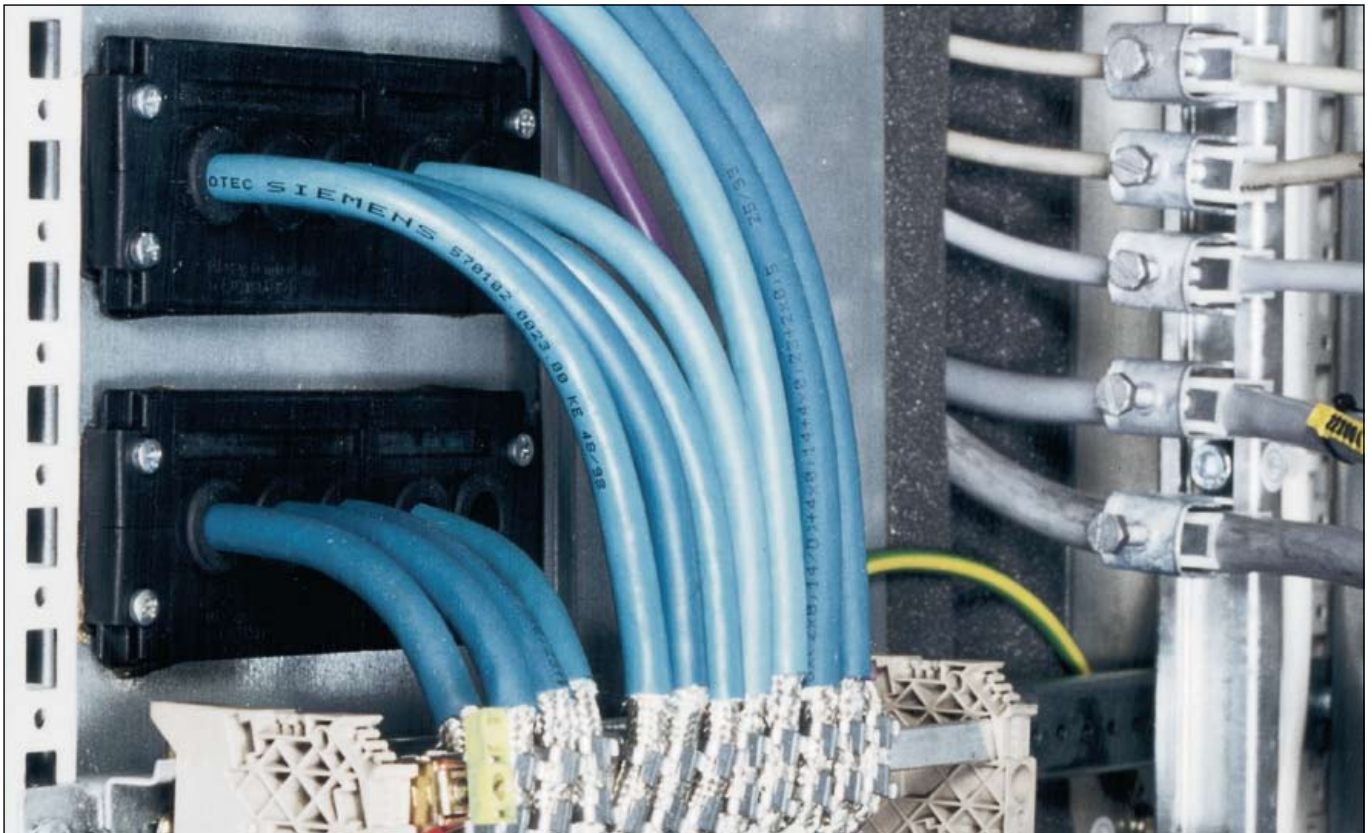
Press gently on the grommets one more time.



KDL cable entry system



Advantages



Assembling high-tech plugs securely in the control cabinet

No need to keep cutting the plug off your cable!

It is so easy to introduce pre-assembled plugs into the control cabinet. Cables with attached plugs are often high-tech products which cannot be cut without invalidating the guarantee for the system.

Thanks to the split rail and the split grommets, the cable with plug can be easily mounted in the cable entry system.

As the saying goes:
it's an open and shut case!

The KDL can quickly and simply insert up to 30 conduits the control cabinet.



- ✓ Cable insertion without interruption
- ✓ Simple mounting
- ✓ Strain relief
- ✓ Protection class IP 54
- ✓ High packing density
- ✓ Cable & plug manufacturer's system guarantee remains valid

Overview



Cable entry system KDL (KDL 16, KDL 24, KDL 2/10, KDL 3/15)

The KDL is a cable entry system for inserting pre-assembled cables. Suitable for cut-outs for 16-pole and 24-pole Harting and Wieland connectors.

Page 28



Cable entry connector housing, type KD/SG

The KD/SG connector housing can be adapted using the mounting enclosure from Harting or Wieland. Mounting and/or unmounting is simple and requires no tools.

Page 29



Cable entry mounting enclosure, type KD/AG

The mounting enclosure is able to accommodate the split connector housing which allows you to easily introduce pre-assembled cables into the control cabinet.

Page 30



Cable entry grommets, type KDT/Z (standard)

The cable entry grommet KDT/Z allows the fitting of cables from 3 – 29 mm in size in the cable entry system KDL.

Page 31



Cable entry grommets, type KDT/Z-L (paint spraying sector)

The grommet was specially conceived for use in the paint spraying sector. The material contains no wet paint impairment substances.

Page 33



Cable entry grommets, type KDT/Z-V0 (fire classification V0)

These cable entry grommets are self-extinguishing (V0) based on UL 94. With this, cables of 3–29 mm can be fitted into the cable entry system KDL.

Page 35



Configuration and mounting of the cable entry system KDL

Detailed construction and assembly instructions for the screw fittings.

Page 37



KDL cable entry system

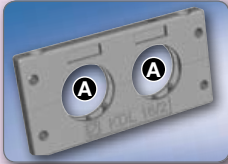

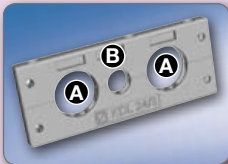


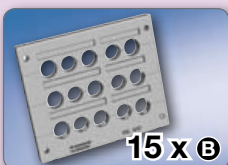
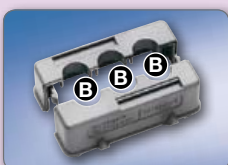
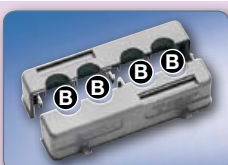
Selection table (possible combinations of cable entry systems and grommets)

Matching cable entry grommets:

Types • KDT/Z • BTK 17 • BTG 32 • ATG • KDT/ASI • SDT/Z

Grommet, large **A**
for cables 16–29 mm in diameter

Grommet, small **B**
for cables 3–16 mm in diameter

		Grommet, large A for cables 16–29 mm in diameter	Grommet, small B for cables 3–16 mm in diameter
	KDL 16/2 Black: Item no. 87171010 Grey: Item no. 87171050	2	0
	KDL 16/4 Black: Item no. 87171012 Grey: Item no. 87171052 4 x B	0	4
	KDL 24/3 Black: Item no. 87171014 Grey: Item no. 87171054	2	1
	KDL 24/5 Black: Item no. 87171016 Grey: Item no. 87171056 5 x B	0	5
	KDL 2/10 Black: Item no. 87171017 Grey: Item no. 87171057 10 x B	0	10
	KDL 3/15 Black: Item no. 87171018 15 x B	0	15
	KD/SG 16/3 Grey: Item no. 87171032 3 x B	0	3
	KD/SG 24/4 Grey: Item no. 87171034 4 x B	0	4

Material data for the entire system (cable entry systems with grommets)



Halogen-free



Phosphorous-free



Cadmium-free



Asbestos-free



Lead-free



Silicone-free



All components of the entire grommet-configured system KDL conform with ROHS and are characterised by the IP class 54 (except for double cable grommets).

Additionally all components are free of halogen, phosphorous, cadmium, asbestos, lead and silicone.

The entire system can be used within temperature range of -40°C to 80°C (transient 100°C)

The cable entry systems type KDL are made of polyamide 6.6, the corresponding grommets are made of thermoplastic rubber.

Material data for individual components





Type	Material	Fire classification according to UL 94	Railway approvals	
			 Germany	 France
KDL 16/x	Polyamide 6.6	V0	✓	✓
KDL 24/x	Polyamide 6.6	V0	✓	✓
KDL 2/10	Polyamide 6.6	V0	✓	✓
KDL 3/15	Polyamide 6.6	V0	✓	✓
KD/SG	Polycarbonate	V0		
KD/AG	Polycarbonate/Steel Aluminium/Steel	–		
KDT/Z	Thermoplastic rubber	HB		
KDT/Z-L	Thermoplastic rubber	HB		
KDT/Z-V0	Thermoplastic rubber	V0		



KDL cable entry system

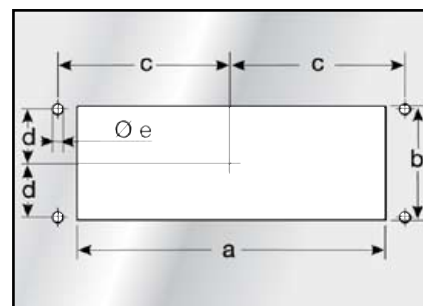
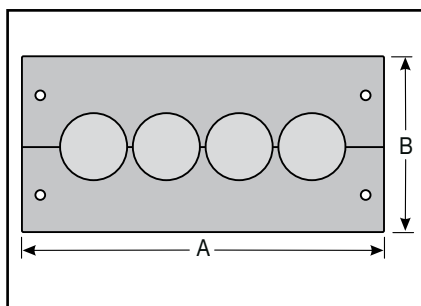
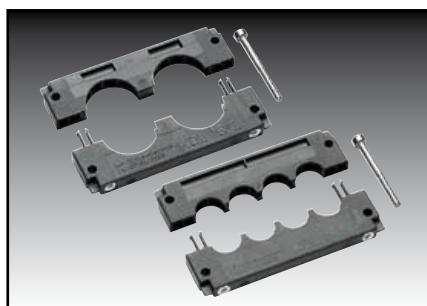
Cable entry system, type KDL



-  System
-40 – 80 °C, transient 100 °C
-  Polyamide 6.6
-  V0
-  IP 54
(with suitable grommets and cables)

The KDL is a cable entry system for inserting pre-assembled cables. The types KDL 16 /xx fit on cut-outs for 16-pin connectors, the types KDL 24 /xx fit on cut-outs for 24-pin connectors, from Harting or Wieland.

- Simple mounting of pre-assembled cables
- Fits standard cut-outs
- Simple strain relief for cables using cable ties
- Simple realization of EMC solution with discharge plate







KDL...

Type	Order no.	Colour	No. of openings small / large	A mm	B mm	Installation height mm	a mm	b mm	c mm	d mm	e mm	Pack qty.
for standard cut-outs, size 16												
KDL 16/2	87171010	black	- / 2	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
KDL 16/4	87171012	black	4 / -	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
KDL 16/2	87171050	grey	- / 2	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
KDL 16/4	87171052	grey	4 / -	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
Replacement parts:												
Replacement seal KDL16	87980005											1
for standard cut-outs, size 24												
KDL 24/3	87171014	black	1 / 2	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
KDL 24/5	87171016	black	5 / -	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
KDL 24/3	87171054	grey	1 / 2	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
KDL 24/5	87171056	grey	5 / -	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
Replacement parts:												
Replacement seal KDL24	87980004											1
Enlarged cut-out for 10 – 30 cables												
KDL 2/10	87171017	black	10 / -	146.0	90.0	10.0	120.0	60.0	65.0	32.0	5.5	1
KDL 2/10	87171057	grey	10 / -	146.0	90.0	10.0	120.0	60.0	65.0	32.0	5.5	1
KDL 3/15	87171018	black	15 / -	146.0	122.0	10.0	120.0	96.0	65.0	48.0	5.5	1
Matching grommets KDT/Z; BTK 17; BTG 32; ATG; KDT/ASI; SDT/Z												
Matching EMC discharge plate, type KDL-AB... in chapter "Accessories for cables entry systems and plates"												
Matching label plate (See ACS catalogue): Type KSS 20 x 9 or KSS 10 x 8												
The correct tool for completing the cutaway can be found in the chapter on "Punching tools".												

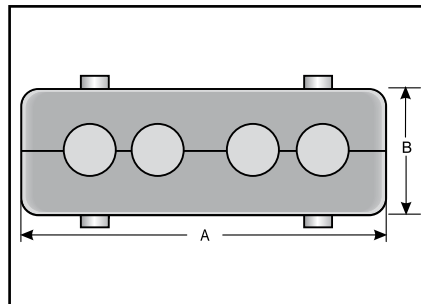
Cable entry connector housing, type KD/SG

Made in Germany
RoHS compliant

-  System
-40 – 80 °C, transient 100 °C
-  Polycarbonate
-  V0
-  IP 54
(with suitable grommets and cables)

The KD/SG connector housing is another option for inserting pre-assembled wiring into an enclosure. The KD/SG connector housing can be adapted using the mounting enclosure from Harting or Wieland. Mounting and/or unmounting of the KD/SG is simple and requires no tools.

- Simple mounting of pre-assembled cables
- Simple strain relief for cables using cable ties
- No tools required to separate connector housing from mounting enclosure



KD/SG...

Type	Order no.	Colour	No. of openings small / large	Suitable for	A mm	B mm	Pack qty.
KD/SG-16/3	87171032	grey	3 / -	KD/AG-16H	94	43	1
KD/SG-24/4	87171034	grey	4 / -	KD/AG-24...	120	43	1

Matching grommets

KDT/Z; BTK 17; KDT/ASI; SDT/Z

Matching label plate (See ACS catalogue):




Type KSS 20 x 9 or KSS 10 x 8



KDL cable entry system

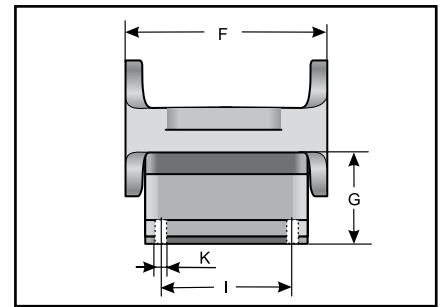
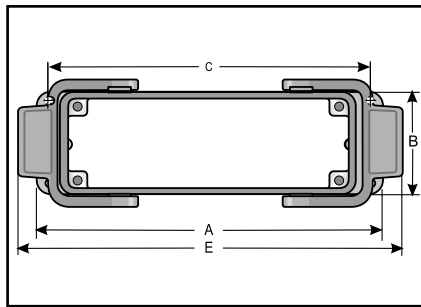
Mounting enclosure type KD/AG



-  System
-40 – 80 °C, transient 100 °C
-  Polycarbonate/Steel
Aluminium die-casting/Steel
-  IP 54

The mounting enclosure is able to accommodate the split connector housing which allows you to easily introduce pre-assembled cables into the control cabinet. Version H in aluminium die-casting with steel catches.

- Simple mounting of pre-assembled cables
- Fits standard cut-outs from Harting and Wieland
- No tools required to separate connector housing from mounting enclosure



KD/AG...


Type	Order no.	Colour	Suitable for	A mm	B mm	C mm	E mm	F mm	G mm	I mm	K mm	Pack qty.
KD/AG-16H *	87191132	grey	KD/SG-16/3	113	44	103	137	55	27	32	4.5	1
KD/AG-24H	87191134	grey	KD/SG-24/4	140	44	130	155	55	27	32	4.5	1
KD/AG-24	87171144	grey	KD/SG-24/4	140	44	130	155	55	27	32	4.5	1

* Reduction of cut-out from 24-pole connector to 16-pole connector is possible through the AP 24/16 adapter plate.

The right tool for cut-out production can be found in the chapter "Punching tools"


Cable entry grommets, type KDT/Z (standard)

Made in Germany
RoHS compliant

 -40 – 80 °C, transient 100 °C

 Thermoplastic rubber

 HB

 IP 54
(with matching cables)

The cable entry grommet KDT/Z allows the fitting of cables from 3 – 29 mm in size in the cable entry system KDL. Strain relief can be provided quickly and easily for cables using cable ties.



KDT/Z...

Type	Order no.	Colour	For Ø mm	For entry small / large	No. openings	Suitable for conduit	Pack qty.
Grommet, small							
KDT/Z 03	87171212	black	3 – 4	● / -	1		10
KDT/Z 04	87171214	black	4 – 5	● / -	1		10
KDT/Z 05	87171216	black	5 – 6	● / -	1		10
KDT/Z 06	87171218	black	6 – 7	● / -	1		10
KDT/Z 07	87171220	black	7 – 8	● / -	1		10
KDT/Z 08	87171222	black	8 – 9	● / -	1		10
KDT/Z 09	87171224	black	9 – 10	● / -	1		10
KDT/Z 10	87171226	black	10 – 11	● / -	1		10
KDT/Z 11	87171228	black	11 – 12	● / -	1		10
KDT/Z 12	87171230	black	12 – 13	● / -	1		10
KDT/Z 13	87171232	black	13 – 14	● / -	1		10
KDT/Z 14	87171234	black	14 – 15	● / -	1		10
KDT/Z 15	87171236	black	15 – 16	● / -	1		10
Grommet, large							
KDT/Z 16	87171412	black	16 – 17	- / ●	1		10
KDT/Z 17	87171414	black	17 – 18	- / ●	1		10
KDT/Z 18	87171416	black	18 – 19	- / ●	1		10
KDT/Z 19	87171418	black	19 – 20	- / ●	1		10
KDT/Z 20	87171420	black	20 – 21	- / ●	1		10
KDT/Z 21	87171422	black	21 – 22	- / ●	1		10
KDT/Z 22	87171424	black	22 – 23	- / ●	1		10
KDT/Z 23	87171426	black	23 – 24	- / ●	1		10
KDT/Z 24	87171428	black	24 – 25	- / ●	1		10
KDT/Z 25	87171430	black	25 – 26	- / ●	1		10
KDT/Z 26	87171432	black	26 – 27	- / ●	1		10
KDT/Z 27	87171434	black	27 – 28	- / ●	1		10
KDT/Z 28	87171436	black	28 – 29	- / ●	1		10



KDL cable entry system

Cable entry grommets, type KDT/Z (standard)



Type	Order no.	Colour	For Ø mm	For entry small / large	No. openings	Suitable for conduit	Pack qty.
Double cable grommet (IP 20)							
KDT/Z 2x4	87175214	black	3.5 – 4	● / -	2		10
KDT/Z 2x6	87175218	black	5.5 – 6	● / -	2		10
Dummy grommet							
BTK 17 (dummy grommet)	87171210	black		● / -	0		10
BTG 32 (dummy grommet)	87171410	black		- / ●	0		10
Adapter grommet							
ATG (adapter grommet)	87171610	black		- / ●	1		10
ASI grommet							
KDT/ASI	87171238	black		● / -	1	ASI cable	10
Cable protection conduit- grommet							
SDT/Z 07	87172210	black		● / -	1	EW-M10/P7	10
SDT/Z 09	87172212	black		● / -	1	EW-M12/P9	10
SDT/Z 11	87172214	black		● / -	1	EW-M16/P11	10
SDT/Z 16	87172216	black		- / ●	1	EW-M20/P16	10
SDT/Z 21	87172218	black		- / ●	1	EW-M25/P21	10
Grommets match: KDL 16; KDL 24; KDL 2/10; KDL 3/15; KD/SG							

Cable entry grommets, type KDT/Z-L (paint spraying sector)

Made in Germany
RoHS compliant



-40 – 80 °C, transient 100 °C



Thermoplastic rubber



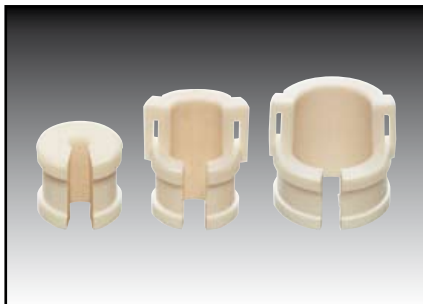
HB



Free of LABS substances

The KDT/Z-L cable insertion grommet is a cable insertion grommet for wires from 3 to 29 mm. The grommet was specially conceived for use in the paint spraying sector.

The material contains no wet paint impairment substances. Strain relief can be provided quickly and easily for cables using cable ties.



KDT/Z-L...

Type	Order no.	Colour	For Ø mm	For entry small / large	No. openings	Suitable for conduit	Pack qty.
Grommet, small							
KDT/Z-L 03	87173212	white	3 – 4	● / -	1		10
KDT/Z-L 04	87173214	white	4 – 5	● / -	1		10
KDT/Z-L 05	87173216	white	5 – 6	● / -	1		10
KDT/Z-L 06	87173218	white	6 – 7	● / -	1		10
KDT/Z-L 07	87173220	white	7 – 8	● / -	1		10
KDT/Z-L 08	87173222	white	8 – 9	● / -	1		10
KDT/Z-L 09	87173224	white	9 – 10	● / -	1		10
KDT/Z-L 10	87173226	white	10 – 11	● / -	1		10
KDT/Z-L 11	87173228	white	11 – 12	● / -	1		10
KDT/Z-L 12	87173230	white	12 – 13	● / -	1		10
KDT/Z-L 13	87173232	white	13 – 14	● / -	1		10
KDT/Z-L 14	87173234	white	14 – 15	● / -	1		10
KDT/Z-L 15	87173236	white	15 – 16	● / -	1		10
Grommet, large							
KDT/Z-L 16	87173412	white	16 – 17	- / ●	1		10
KDT/Z-L 17	87173414	white	17 – 18	- / ●	1		10
KDT/Z-L 18	87173416	white	18 – 19	- / ●	1		10
KDT/Z-L 19	87173418	white	19 – 20	- / ●	1		10
KDT/Z-L 20	87173420	white	20 – 21	- / ●	1		10
KDT/Z-L 21	87173422	white	21 – 22	- / ●	1		10
KDT/Z-L 22	87173424	white	22 – 23	- / ●	1		10
KDT/Z-L 23	87173426	white	23 – 24	- / ●	1		10
KDT/Z-L 24	87173428	white	24 – 25	- / ●	1		10
KDT/Z-L 25	87173430	white	25 – 26	- / ●	1		10
KDT/Z-L 26	87173432	white	26 – 27	- / ●	1		10
KDT/Z-L 27	87173434	white	27 – 28	- / ●	1		10
KDT/Z-L 28	87173436	white	28 – 29	- / ●	1		10

Cable entry grommets, type KDT/Z-V0 (fire classification)

Made in Germany
RoHS compliant



-40 – 80 °C, transient 100 °C

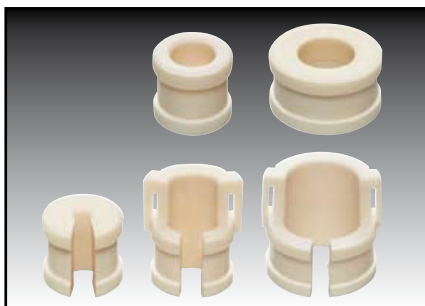


Thermoplastic rubber



V0

The cable entry grommet KDT/Z-V0 allows the fitting of cables from 3 – 29 mm in size in the cable entry system KDL. These cable entry grommets are self-extinguishing (V0) based on UL 94. Strain relief can be provided quickly and easily for cables using cable ties.



KDT/Z-V0...

Type	Order no.	Colour	For Ø mm	For entry small / large	No. openings	Pack qty.
Grommet, small						
KDT/Z-V0 03	87171512	white	3.0 – 4.0	● / -	1	10
KDT/Z-V0 04	87171514	white	4.0 – 5.0	● / -	1	10
KDT/Z-V0 05	87171516	white	5.0 – 6.0	● / -	1	10
KDT/Z-V0 06	87171518	white	6.0 – 7.0	● / -	1	10
KDT/Z-V0 07	87171520	white	7.0 – 8.0	● / -	1	10
KDT/Z-V0 08	87171522	white	8.0 – 9.0	● / -	1	10
KDT/Z-V0 09	87171524	white	9.0 – 10.0	● / -	1	10
KDT/Z-V0 10	87171526	white	10.0 – 11.0	● / -	1	10
KDT/Z-V0 11	87171528	white	11.0 – 12.0	● / -	1	10
KDT/Z-V0 12	87171530	white	12.0 – 13.0	● / -	1	10
KDT/Z-V0 13	87171532	white	13.0 – 14.0	● / -	1	10
KDT/Z-V0 14	87171534	white	14.0 – 15.0	● / -	1	10
KDT/Z-V0 15	87171536	white	15.0 – 16.0	● / -	1	10
Grommet, large						
KDT/Z-V0 16	87171712	white	16.0 – 17.0	- / ●	1	10
KDT/Z-V0 17	87171714	white	17.0 – 18.0	- / ●	1	10
KDT/Z-V0 18	87171716	white	18.0 – 19.0	- / ●	1	10
KDT/Z-V0 19	87171718	white	19.0 – 20.0	- / ●	1	10
KDT/Z-V0 20	87171720	white	20.0 – 21.0	- / ●	1	10
KDT/Z-V0 21	87171722	white	21.0 – 22.0	- / ●	1	10
KDT/Z-V0 22	87171724	white	22.0 – 23.0	- / ●	1	10
KDT/Z-V0 23	87171726	white	23.0 – 24.0	- / ●	1	10
KDT/Z-V0 24	87171728	white	24.0 – 25.0	- / ●	1	10
KDT/Z-V0 25	87171730	white	25.0 – 26.0	- / ●	1	10
KDT/Z-V0 26	87171732	white	26.0 – 27.0	- / ●	1	10
KDT/Z-V0 27	87171734	white	27.0 – 28.0	- / ●	1	10
KDT/Z-V0 28	87171736	white	28.0 – 29.0	- / ●	1	10



KDL cable entry system

Cable entry grommets, type KDT/Z-V0 (fire classification)



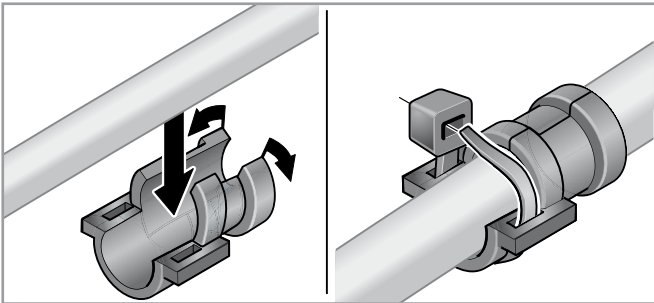
Type	Order no.	Colour	For Ø mm	For entry small / large	No. openings	Pack qty.
------	-----------	--------	----------	-------------------------	--------------	-----------

Dummy grommet

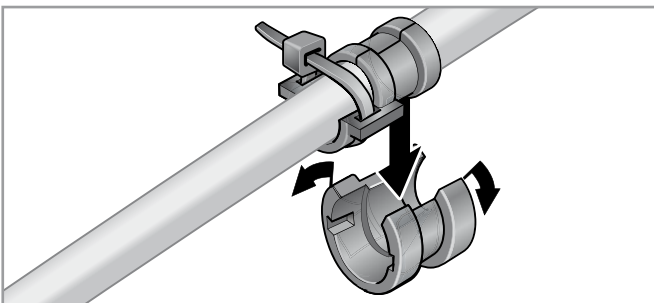
BTK-V0 17 (dummy grommet)	87171510	white		● / -	0	10
BTG-V0 32 (dummy grommet)	87171710	white		- / ●	0	10

Grommets match: KDL 16; KDL 24; KDL 2/10; KDL 3/15; KD/SG

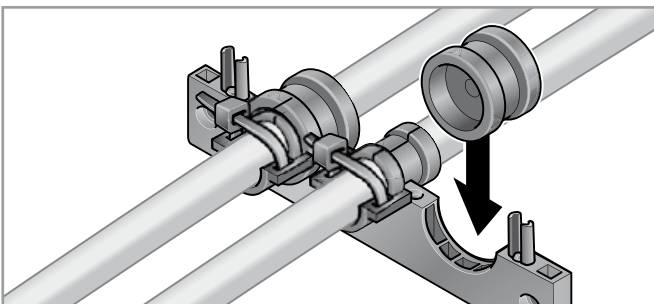
Assembly



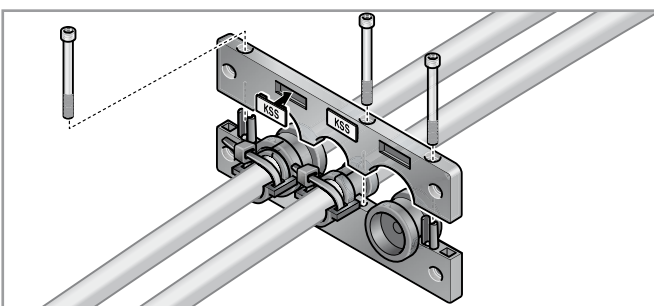
Lay cable into appropriate grommet and provide strain relief where necessary using cable ties.



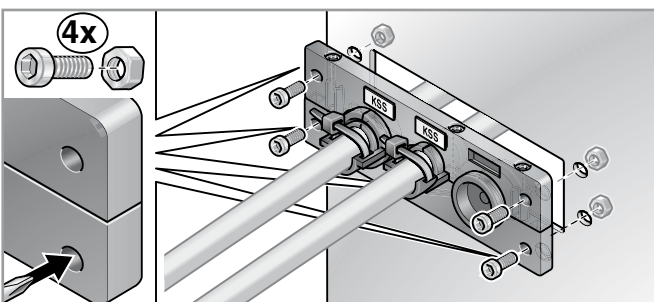
Where required, install small sleeves into the adapter grommet.



Insert rail completely. Fill in empty spaces with dummy grommets.



Join upper and lower part of bar. Fasten rail with the side screws.



Position rail on the cut-out and fasten.

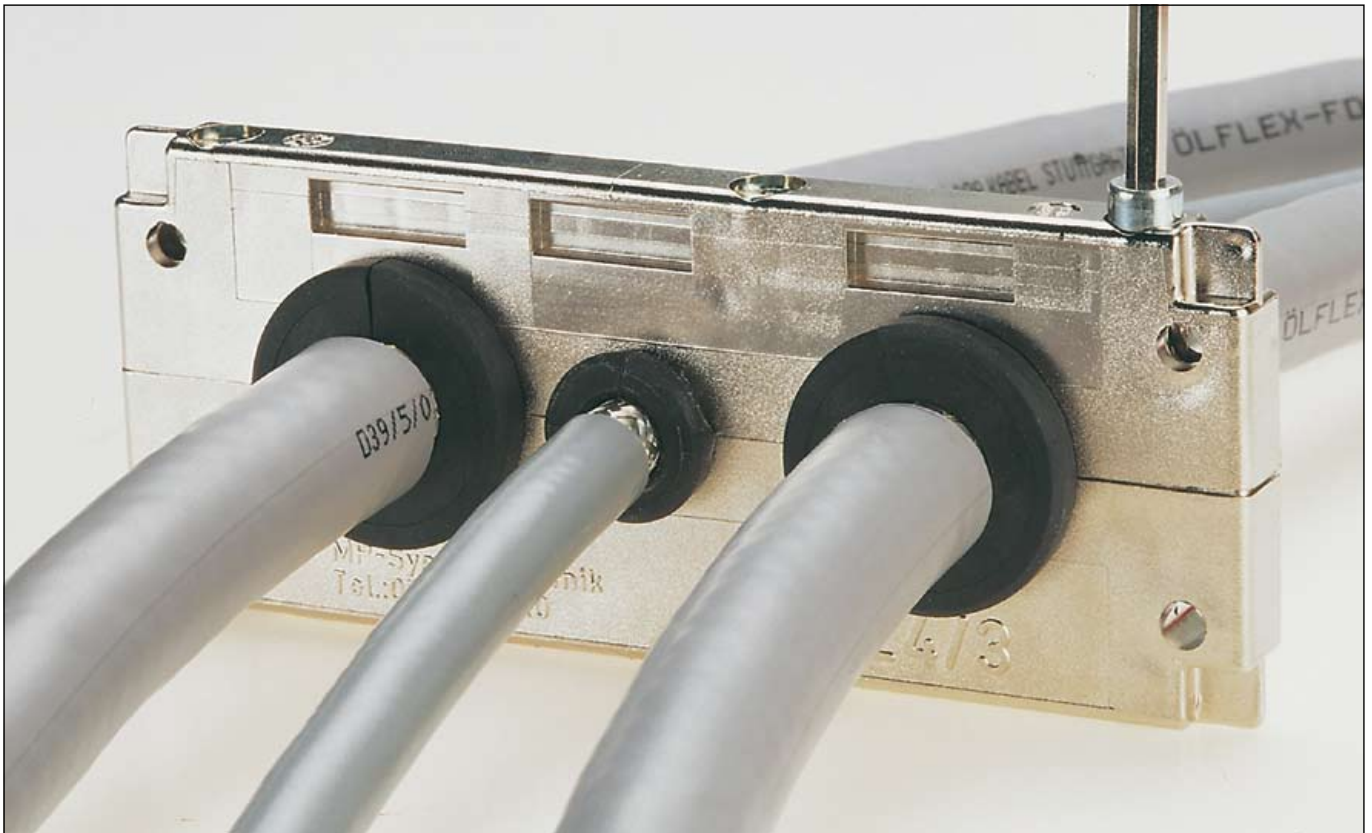


KDL / EMC cable entry system





Advantages



Discharge sheath currents

The KDL/EMC is a cable entry system made of plastic with a metallised surface.

This plate can be used as a trouble-free way to discharge sheath currents from electromagnetic shielding.

The KDT/Z-EMC cable entry grommet uses a fitted metal braiding to achieve the connection between the conduit shielding and the cable entry system.

An alternative opportunity to discharge sheath currents comes through an additional discharge plate that can be mounted onto the existing drilling pattern.



- ✓ Simple mounting
- ✓ Large cut-out
- ✓ Variable
- ✓ No additional parts required
- ✓ No extra mounting effort required

Overview



KDL / EMC cable entry system (KDL 16/x, KDL 24/x, KDL 2/10, KDL 3/15)

The KDL / EMC is the metal version of the KDL. Sheath currents of shielded cables can be simply discharged in several different ways here.

Page 44



Cable entry grommets, type KDT/Z-EMC

The cable entry grommet is a grommet adapted to the sheath diameter with a conductive textile tape to discharge interferences to the control cabinet.

Page 45



Configuration and mounting of the cable entry system KDL / EMC

Detailed construction and assembly instructions for the snap-on/screw-on fittings.

Page 47



KDL / EMC cable entry system

Selection table (possible combinations of cable entry grommets and systems)



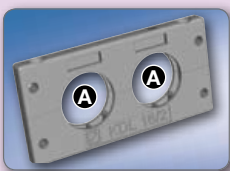
The cable entry system KDL/EMC is based on the cable entry system KDL. A conductive surface allows cable sheath interference to be discharged onto the control cabinet simply and without additional aids. Field-related interferences are discharged by the metallisation. Fits cut-outs for 16-pole and 24-pole connectors.

Matching cable entry grommets:

Types • KDT/Z-EMC • ATG-EMC • BTK 17 • BTG 32

Grommet, large **A**
for cables 16–29 mm in diameter

Grommet, small **B**
for cables 3–16 mm in diameter



KDL 16/2-EMC
Item no. 87171020

2

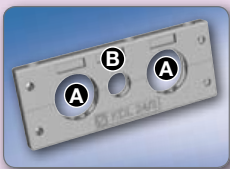
0



KDL 16/4-EMC
Item no. 87171022

0

4



KDL 24/3-EMC
Item no. 87171024

2

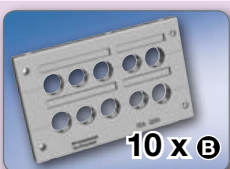
1



KDL 24/5-EMC
Item no. 87171026

0

5



KDL 2/10-EMC
Item no. 87171027

0

10



KDL 3/15-EMC
Item no. 87980021

0

15

Material data for the entire system (cable entry systems with grommets)

 **Halogen-free**

 **Phosphorous-free**

 **Cadmium-free**

 **Asbestos-free**

 **Lead-free**

 **Silicone-free**



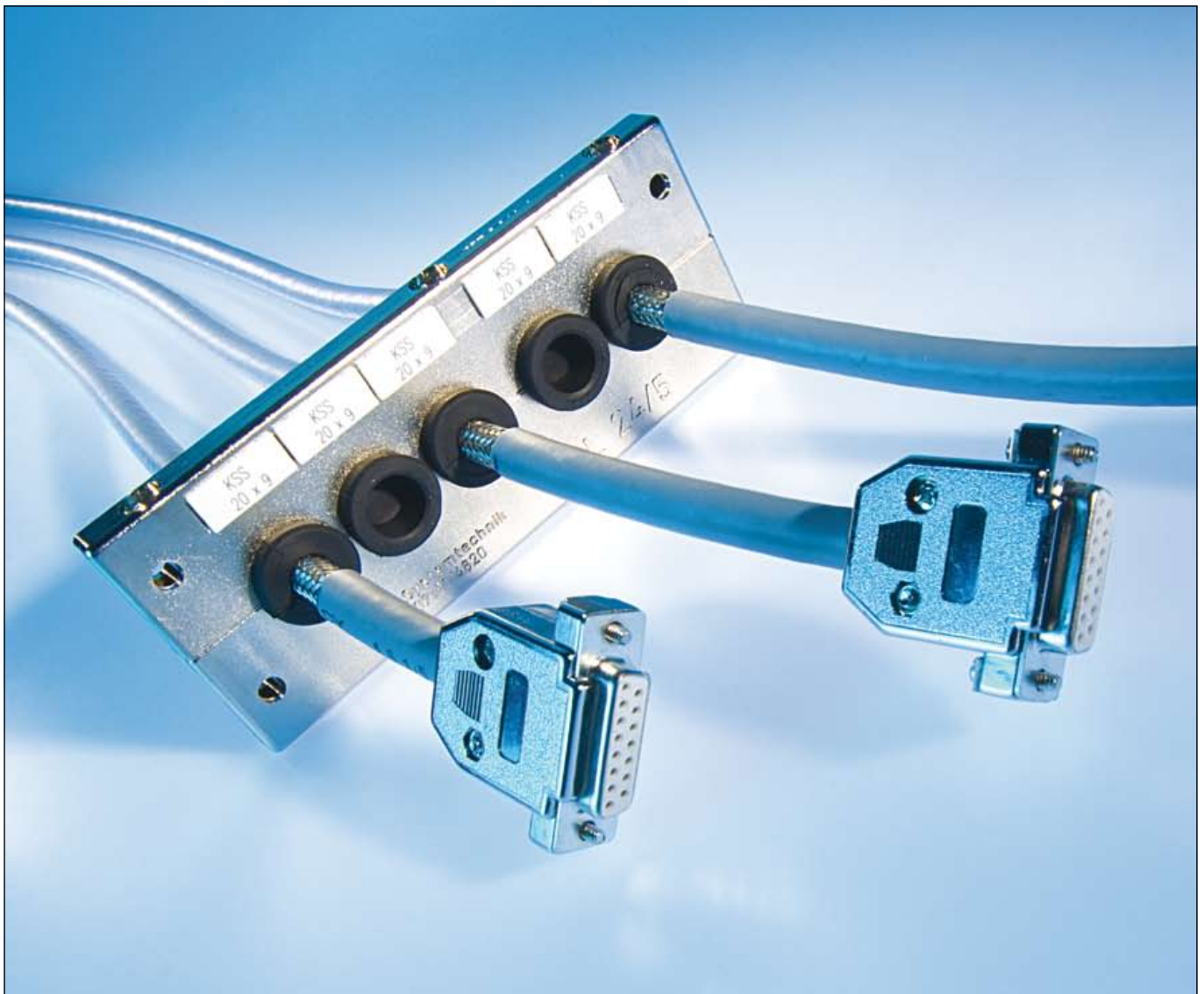
All components of the entire grommet-configured system KDL/EMC conform with ROHS and are characterised by at least fire classification HB.

Additionally all components are free of halogen, phosphorous, cadmium, asbestos, lead and silicone.

The entire system can be used within temperature range of -40°C to 80°C

(transient to 100°C).

The cable entry systems type KDL/EMC are made of polyamide with a conductive surface. The corresponding grommet are made of thermoplastic rubber and are covered with conductive fabric tape.








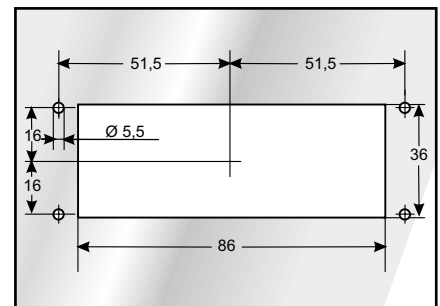
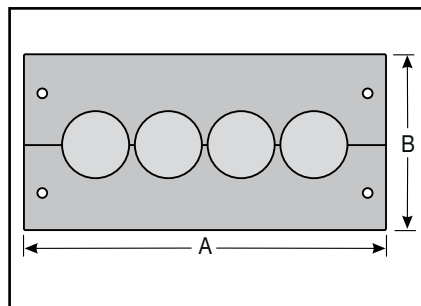
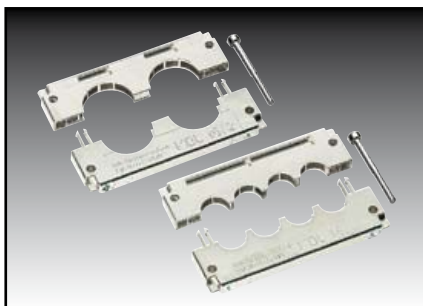
KDL / EMC cable entry system

Cable entry system, type KDL xx/xx-EMC



-  System
-40 – 80 °C, transient 100 °C
-  Polyamide 6.6
with conductive coating
-  V0

The cable entry system KDL/EMC is based on the cable entry system KDL. A conductive surface allows cable sheath interference to be discharged onto the control cabinet simply and without additional aids.
Field-related interferences are discharged by the metallisation.
The types KDL 16 /xx-EMC fit on cut-outs for 16-pin connectors, the types KDL 24 /xx-EMC fit on cut-outs for 24-pin connectors, from Harting or Wieland.



KDL xx/xx-EMC

Type	Order no.	Colour	No. of openings small / large	A mm	B mm	Installation height mm	a mm	b mm	c mm	d mm	e mm	Pack qty.
for standard cut-outs, size 16												
KDL 16/2-EMC	87171020	chrome	- / 2	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
KDL 16/4-EMC	87171022	chrome	4 / -	116.0	58.0	10.0	86.0	36.0	51.5	16.0	5.5	1
for standard cut-outs, size 24												
KDL 24/3-EMC	87171024	chrome	1 / 2	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
KDL 24/5-EMC	87171026	chrome	5 / -	146.0	58.0	10.0	112.0	36.0	65.0	16.0	5.5	1
Enlarged cut-out for up to 15 pre-assembled cables												
KDL 2/10-EMC	87171027	chrome	10 / -	146.0	90.0	10.0	120.0	60.0	65.0	32.0	5.5	1
KDL 3/15-EMC	87980021	chrome	15 / -	146.0	122.0	10.0	120.0	96.0	65.0	48.0	5.5	1
Replacement parts:												
Replacement seal KDL16-EMC	8717102100											1
Replacement seal KDL 24-EMC	8717102500											1
Replacement seal KDL 2/10-EMC	87980020											1
Matching grommets KDT/Z-EMC; ATG-EMC; BTK 17; BTG 32												
Matching label plate (See ACS catalogue): Type KSS 20 x 9 or KSS 10 x 8												
The correct tool for completing the cutaway can be found in the chapter on "Punching tools".												

Cable entry grommets, type KDT/Z-EMC

Made in Germany
RoHS compliant



-40 – 80 °C, transient 100 °C



Thermoplastic rubber
with conductive textile tape



HB

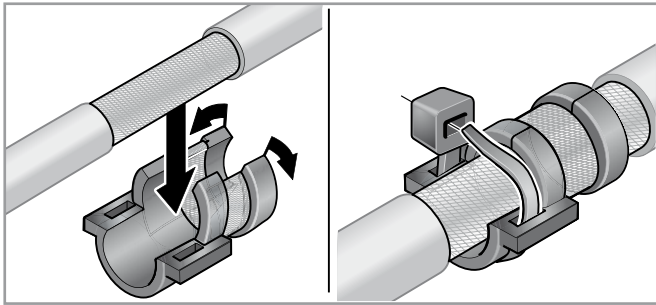
The cable entry grommet KDT/Z-EMC is a grommet adapted to the sheath diameter and fitted with a conductive textile tape to discharge interferences to the control cabinet. Strain relief can be provided quickly and easily for cables using cable ties.



KDT/Z-EMC...

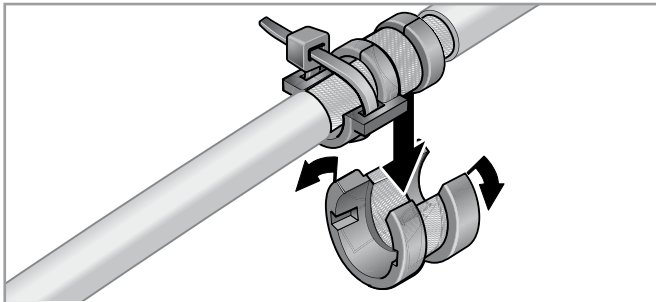
Type	Order no.	Colour	For sheath of Ø mm	For entry small / large	No. Openings	Pack qty.
Grommet, small						
KDT/Z-EMC 03	87171812	black	3 – 4	● / -	1	10
KDT/Z-EMC 04	87171814	black	4 – 5	● / -	1	10
KDT/Z-EMC 05	87171816	black	5 – 6	● / -	1	10
KDT/Z-EMC 06	87171818	black	6 – 7	● / -	1	10
KDT/Z-EMC 07	87171820	black	7 – 8	● / -	1	10
KDT/Z-EMC 08	87171822	black	8 – 9	● / -	1	10
KDT/Z-EMC 09	87171824	black	9 – 10	● / -	1	10
KDT/Z-EMC 10	87171826	black	10 – 11	● / -	1	10
KDT/Z-EMC 11	87171828	black	11 – 12	● / -	1	10
KDT/Z-EMC 12	87171830	black	12 – 13	● / -	1	10
KDT/Z-EMC 13	87171832	black	13 – 14	● / -	1	10
KDT/Z-EMC 14	87171834	black	14 – 15	● / -	1	10
KDT/Z-EMC 15	87171836	black	15 – 16	● / -	1	10
Grommet, large						
KDT/Z-EMC 16	87172012	black	16 – 17	- / ●	1	10
KDT/Z-EMC 17	87172014	black	17 – 18	- / ●	1	10
KDT/Z-EMC 18	87172016	black	18 – 19	- / ●	1	10
KDT/Z-EMC 19	87172018	black	19 – 20	- / ●	1	10
KDT/Z-EMC 20	87172020	black	20 – 21	- / ●	1	10
KDT/Z-EMC 21	87172022	black	21 – 22	- / ●	1	10
KDT/Z-EMC 22	87172024	black	22 – 23	- / ●	1	10
KDT/Z-EMC 23	87172026	black	23 – 24	- / ●	1	10
KDT/Z-EMC 24	87172028	black	24 – 25	- / ●	1	10
KDT/Z-EMC 25	87172030	black	25 – 26	- / ●	1	10
KDT/Z-EMC 26	87172032	black	26 – 27	- / ●	1	10
KDT/Z-EMC 27	87172034	black	27 – 28	- / ●	1	10
KDT/Z-EMC 28	87172036	black	28 – 29	- / ●	1	10

Configuration and mounting of the cable entry system KDL / EMC

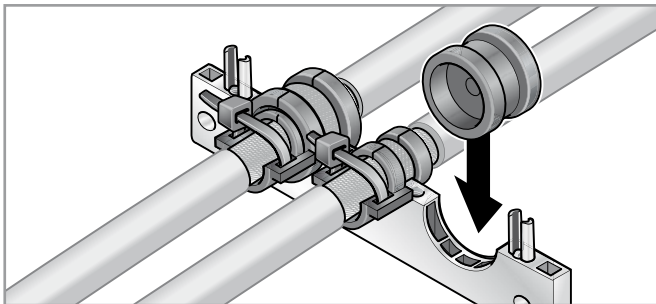


Strip wire at the insertion point and lay into grommet (suitable for diameter at the shielding braid).

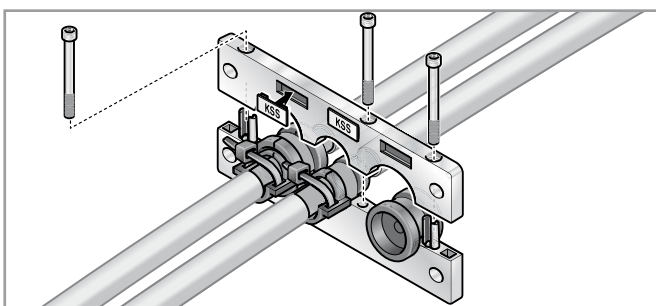
Use a cable tie for strain relief where necessary.



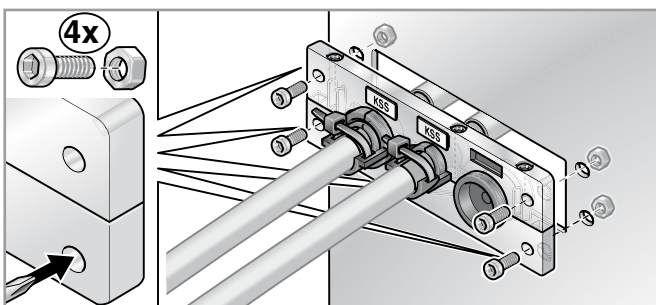
Where required, install small sleeves into the adapter grommet.



Insert rail completely. Fill in empty spaces with dummy grommets.



Join upper and lower part of bar. Fasten rail with the side screws.



Position rail on the cut-out and fasten. Ensure good contact between rail and control cabinet panel.



Cable entry system KDL/S





Advantages



Cable entry if desired

The KDL/S is a cable entry system for which grommets can be manufactured to meet the customer's specifications.

The cut-out size for the cable entry system corresponds to the cut-out for 16-pole connectors.

Various conduit entries can be created, e.g. multi-inserts, custom shapes or different combinations.



- ✓ Individual solution
- ✓ Simple mounting
- ✓ Large cut-out



Cable entry system KDL/S

The KDL/S is a cable entry system for which grommets can be manufactured to meet the customer's specifications. It fits into cut-outs for 16-pole connectors.

Page 55



Cable entry grommets, type KDT/S

The cable entry grommets type KDT/S can be manufactured to meet the customer's specifications. For example for entering specially shaped cables.

Page 56



Cable entry system KDL / S

Selection table (cable entry grommets KDT/S for cable entry system KDL / S)



The cable entry system type KDL/S is a custom cable entry system that allows various kinds of cables to be inserted to meet the customer's requirements and then for the opening to be closed off. The internal KDT/S grommet can be custom designed based on the customer's requirements. Fits standard cut-outs for 16-pole connectors (e.g. Harting, Wieland and Rittal).

Grommets for cable entry system KDL / S

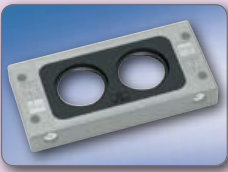
corresponds to cable diameter/cross section

Ø mm 2 x 15.0	Ø mm 2 x 24.0–28.0	Ø mm 2 x 28.0–32.0	Ø mm 2 x 35.0
------------------	-----------------------	-----------------------	------------------



KDT/S 2x15
Item no. 87175444

2

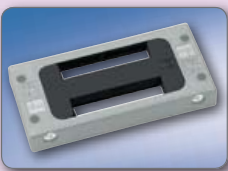


KDT/S 2x28-32
Item no. 87175443

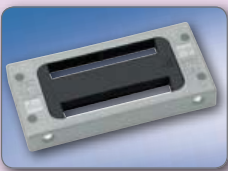
2

2

2



KDT/S 56x13 B
Item no. 87175448



KDT/S 67x12 B
Item no. 87175446



KDT/S 6x17.5
Item no. 87175441

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



Grommets for cable entry system KDL / S
corresponds to cable diameter/cross section

B x H mm	B x H mm	Ø mm
2x56.0x13.0	2x67.0x12.0	6x17.5

2

2

2

2

6

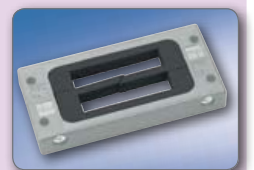
KDT/S 2x24–28
Item no. 87175447



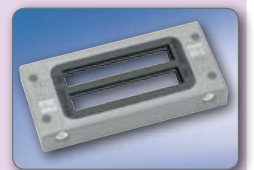
KDT/S 2x35
Item no. 87175440



KDT/S 56x13
Item no. 87175442



KDT/S 67x12 C
Item no. 87175449





Material data for the entire system (cable entry systems with grommets)



Halogen-free



Phosphorous-free



Cadmium-free



Asbestos-free



Lead-free



Silicone-free

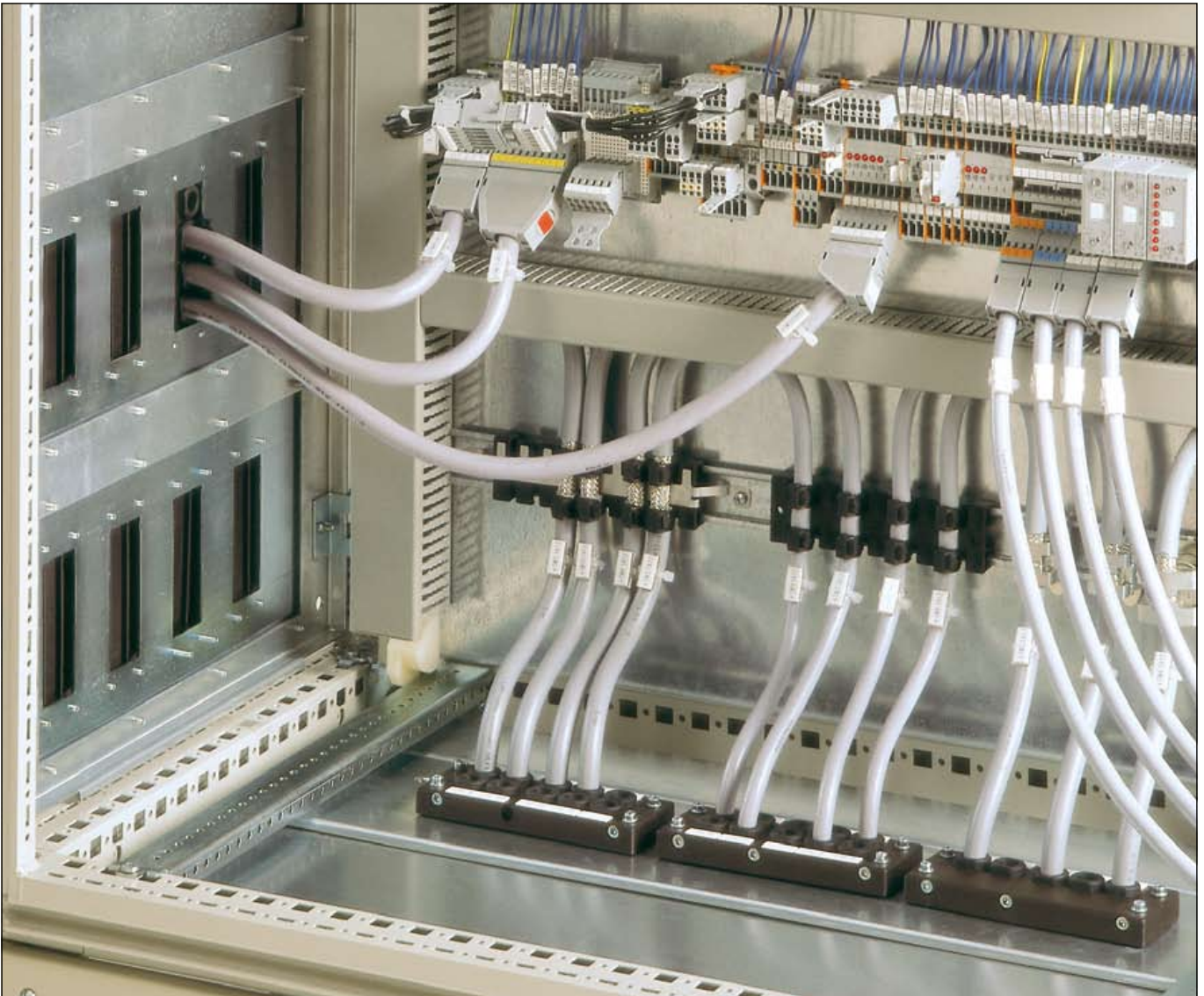


All components of the entire grommet-configured system KDL/S conform with ROHS and are characterised by at least fire classification HB.

Additionally all components are free of halogen, phosphorous, cadmium, asbestos, lead and silicone. The entire system can be used within temperature range of -40°C to 80°C (transient to 100°C).




The cable entry systems type KDL/S are made of polyamide 6.6 and are approved for use on German and French railways. The corresponding grommets are made of thermoplastic rubber.

Applications



Cable entry system, type KDL/S

Made in Germany **RoHS** compliant

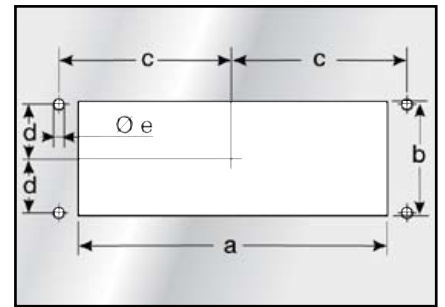
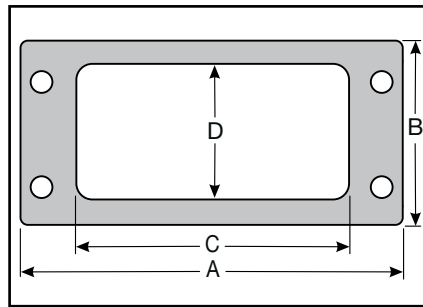
-  System
-40 – 80 °C, transient 100 °C
-  Polyamide 6.6
-  V0

The cable entry system type KDL/S is a custom plate that allows various kinds of cables to be inserted to meet the customer's desires and then for the opening to be closed off. The internal KDT/S grommet can be custom designed based on the customer's requirements.

- Fits standard cut-outs for 16-pole connectors (e.g. Harting, Wieland and Rittal).
- Individual solutions



KDL/S 16



Type	Order no.	Colour	A mm	B mm	C mm	D mm	Installation height mm	a mm	b mm	c mm	d mm	e mm	Pack qty.
------	-----------	--------	------	------	------	------	------------------------	------	------	------	------	------	-----------

KDL/S 16	87173004	Black	116.0	58.0	82.0	43.0	15.0	86.0	36.0	51.5	16.0	5.5	1
----------	----------	-------	-------	------	------	------	------	------	------	------	------	-----	---

Matching grommets

KDT/S

The right tool for cut-out production can be found in the chapter "Punching tools"





Cable entry system KDL/S

Cable entry grommet, type KDL/S



-40 – 80 °C, transient 100 °C



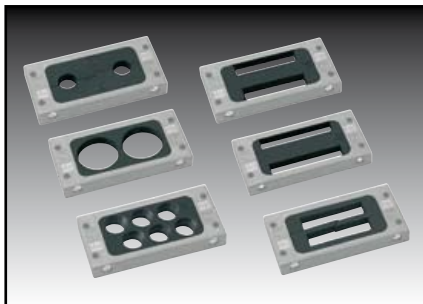
Thermoplastic rubber



HB

The cable entry grommets type KDL/S can be manufactured to meet the customer's specifications. It can provide solutions for a wide variety of applications, e.g. insertion of cables in a range of shapes or sealing openings for metal wiring.

- Individual solutions



KDL/S

Type	Order no.	Colour	No. of openings	For Ø mm	For ribbon cable mm	Version	Pack qty.
KDT/S 2x15	87175444	black	2	15		two-part	1
KDT/S 2x24–28	87175447	black	2	24 – 28		two-part	1
KDT/S 2x28–32	87175443	black	2	28 – 32		two-part	1
KDT/S 2x35	87175440	black	2	35		two-part	1
KDT/S 56x13	87175442	black	2		56x13	two-part	1
KDT/S 56x13 B	87175448	black	2		56x13	one-piece	1
KDT/S 67x12 B	87175446	black	2		67x12	one-piece	1
KDT/S 67x12 C	87175449	black	2		67x12	two-part	1
KDT/S 6x17.5	87175441	black	6	17.5		one-piece	1

Grommets match: KDL/S 16

