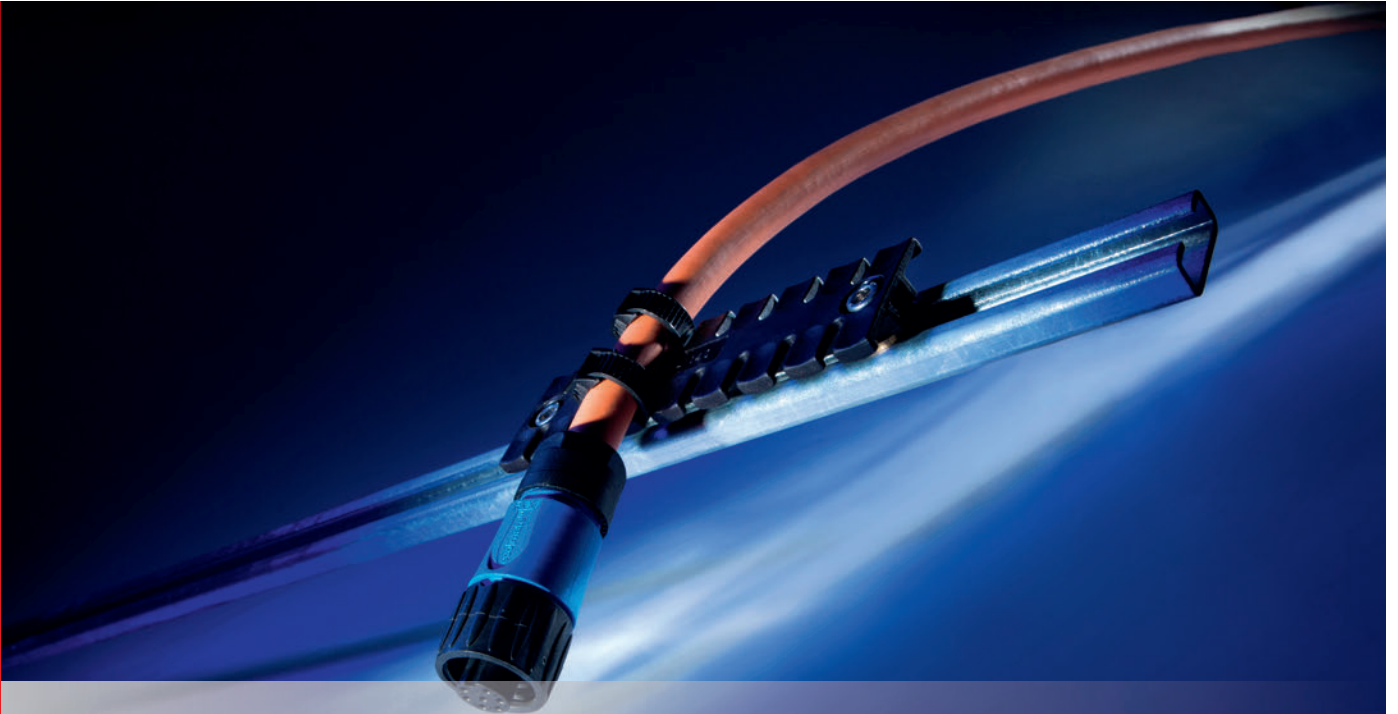
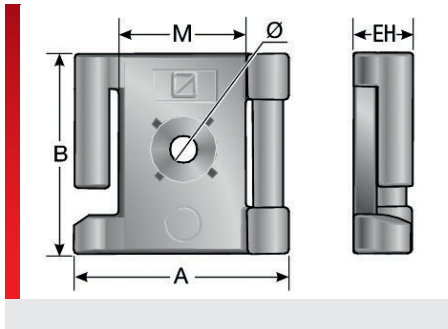




Strain relief / cable fixing plate

Strain relief, type ZL-fix



PRODUCT INFORMATION

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

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

SPECIFICATIONS

 -22.00 – 176.00 °F

 Tape: Coated polyamide
Base: Polyamide 6.6

Type	Part number	Color	Length of Velcro strip inch	Section groove Min. – max. inch	Pack qty.
Profile assembly					
ZL-fix P-15	87705018	black	3.62	0.39 – 0.43	10.00
ZL-fix P-25	87705020	black	6.73	0.39 – 0.43	10.00
ZL-fix P8-25	87705030	black	6.69	0.31 – 0.35	10.00
ZL-fix P-35	87705022	black	6.73	0.39 – 0.43	10.00
Screw assembly					
ZL-fix W-15	87705008	black	3.62		10.00
ZL-fix W-25	87705010	black	6.73		10.00
ZL-fix W-25-400	87705015	black	15.75		10.00
ZL-fix W-35	87705012	black	6.73		10.00

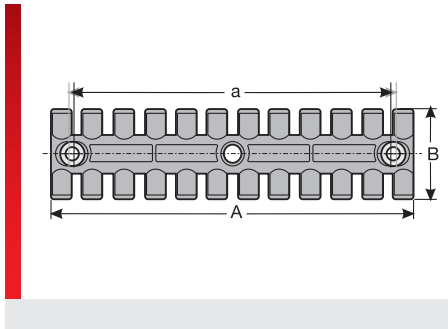
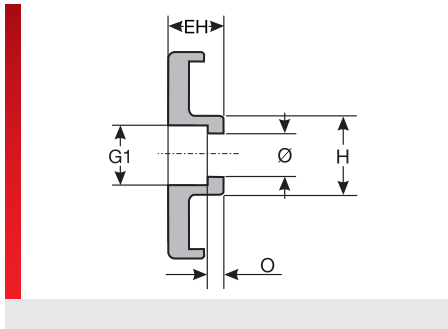
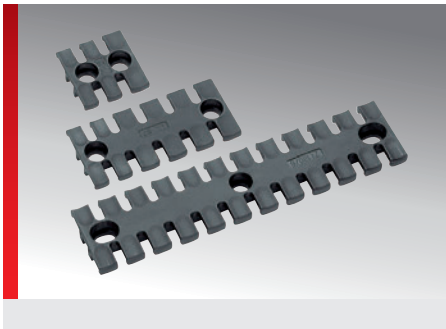
Dimension table

Type	Part number	A inch	B inch	EH inch	M inch	Ø inch
Profile assembly						
ZL-fix P-15	87705018	1.18	1.34	0.42	0.59	0.20
ZL-fix P-25	87705020	1.46	1.34	0.42	0.98	0.20
ZL-fix P8-25	87705030	0.98	1.34	0.42		0.20
ZL-fix P-35	87705022	1.77	1.34	0.42	1.38	0.20
Screw assembly						
ZL-fix W-15	87705008	1.54	1.34	0.42	0.59	0.20

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

[illegible]

Strain relief, type ZL



PRODUCT INFORMATION

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

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

SPECIFICATIONS

 -40.00 – 257.00 °F

 Plate: Polyamide 6.6

 V0

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

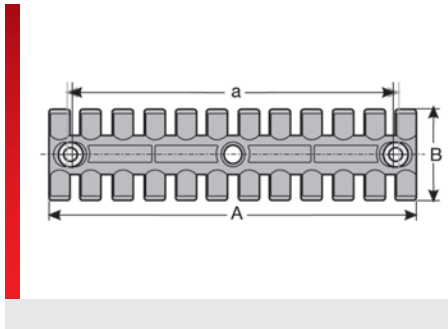
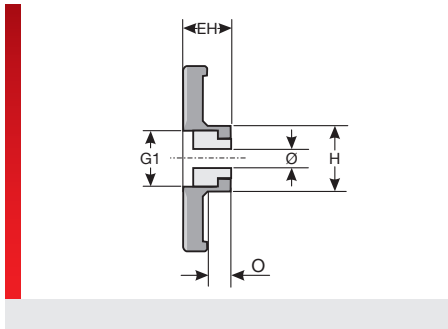
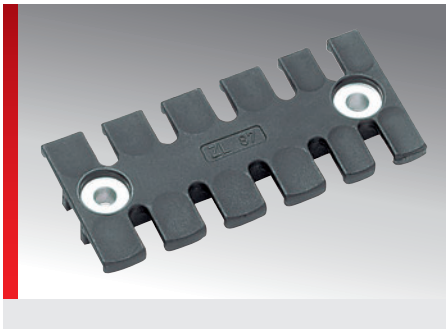
Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
ZL 04	87701010	3.74	2.93	1.38	0.36	0.33		0.12	0.22
ZL 05	87701012	4.69	4.25	1.38	0.36	0.33		0.12	0.22
ZL 39	87701014	1.52	0.77	1.57	0.39	0.47	0.55	0.12	0.35
ZL 60	87701016	2.34	1.71	1.57	0.39	0.47	0.55	0.12	0.35
ZL 70	87701017	2.74	1.71	1.57	0.39	0.47	0.55	0.12	0.35
ZL 80	87701015	3.13	2.68	1.57	0.39	0.47	0.55	0.12	0.35

Strain relief, type ZL (Continued...)

[illegible]

Strain relief, type ZL-AH



PRODUCT INFORMATION

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

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

SPECIFICATIONS

 -40.00 – 257.00 °F

 Plate: Polyamide 6.6
Insert bushing: Aluminum

 V0

 RoHS

 EU

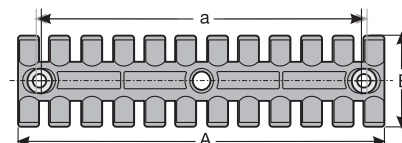
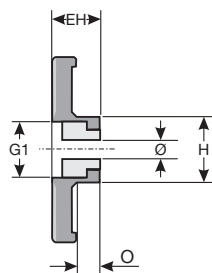
 GL

 Made in Germany

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

Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	O inch	Ø inch
With aluminum grommets, assembly with M5 screws									
ZL-AH 39	87701230	1.52	0.77	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 60	87701232	2.34	1.71	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 87	87701234	3.41	2.68	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 103	87701236	4.04	3.31	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 121	87701238	4.76	4.04	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 140	87701240	5.49	4.76	1.57	0.39	0.47	0.55	0.28	0.22
ZL-AH 180	87701242	7.09	6.18	1.65	0.45	0.47	0.63	0.28	0.22

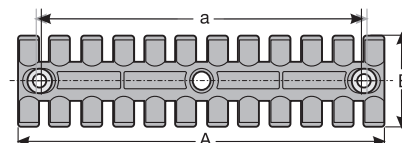
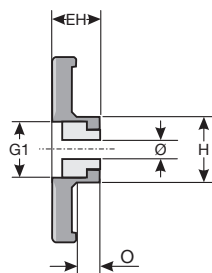


The ZL-MH strain relief plates are based on the ZL strain relief plate. By inserting the brass grommets, the ZL strain relief plate is free of fastening forces.

SPECIFICATIONS

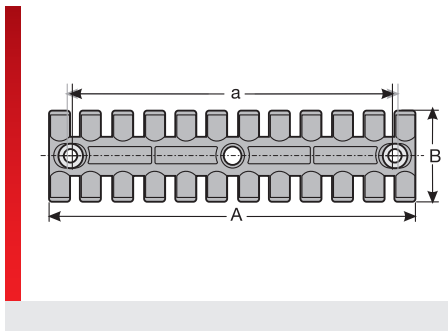
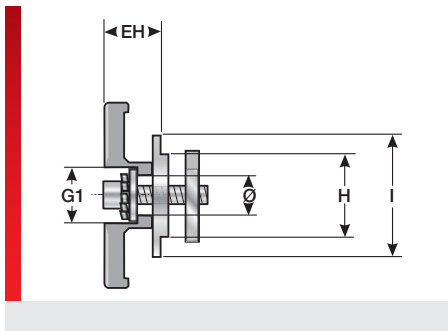
	-40.00 – 257.00 °F
	Plate: Polyamide 6.6 Insert bushing: Brass
	V0

Strain relief



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

Strain relief, type ZL-AM



PRODUCT INFORMATION

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

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Micro-encapsulated PreCOTE thread coating serves as an added locking element
- Approved for railway technology (EN 45545-2:2013)

SPECIFICATIONS

 -40.00 – 257.00 °F

 Polyamide 6.6

 V0

 RoHS

 EU

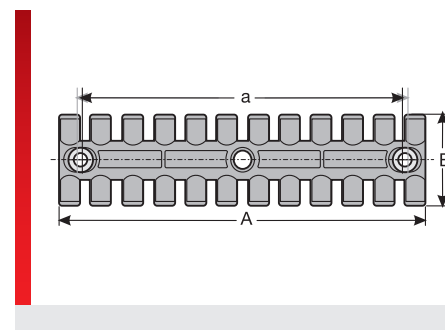
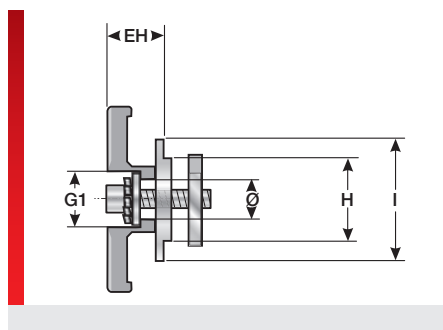
 GL

 Made in Germany

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

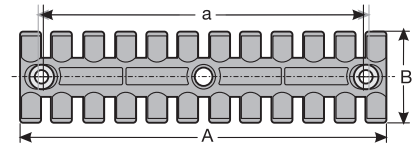
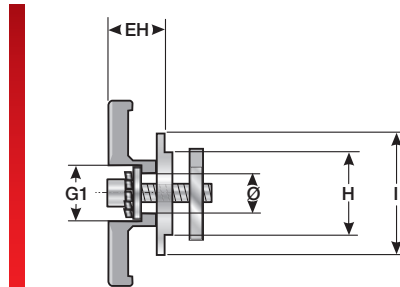
Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 16 mm (0.63 in) C-rail slot Interior width 22–27 mm (0.87 – 1.06 in) Brass disc Stainless steel screw 1.4301 with UNC thread Stainless steel slot nut 1.4301									
ZL-AM 39	87702210	1.52	0.77	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 60	87702212	2.34	1.71	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 87	87702214	3.41	2.68	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 103	87702216	4.04	3.31	1.57	0.47	0.47	0.63	1.02	0.20



Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
ZL-AM 121	87702218	4.76	4.04	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 140	87702220	5.49	4.76	1.57	0.47	0.47	0.63	1.02	0.20
ZL-AM 180	87702222	7.09	6.18	1.65	0.53	0.47	0.63	1.02	0.20

Strain relief, type ZL-SW

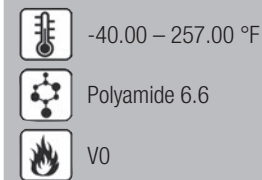


PRODUCT INFORMATION

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

- Very fast installation
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Micro-encapsulated PreCOTE thread coating serves as an added locking element
- Approved for railway technology (EN 45545-2:2013)

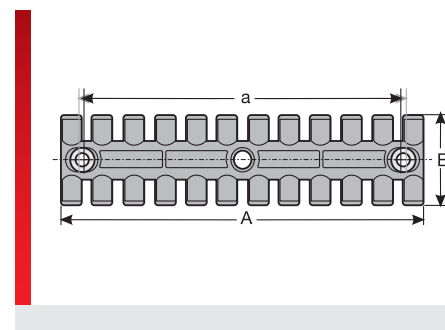
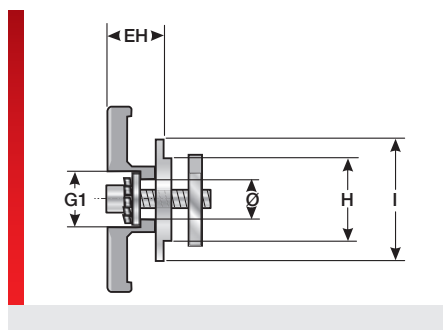
SPECIFICATIONS



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

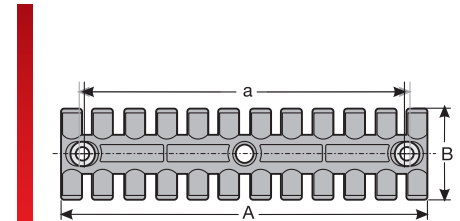
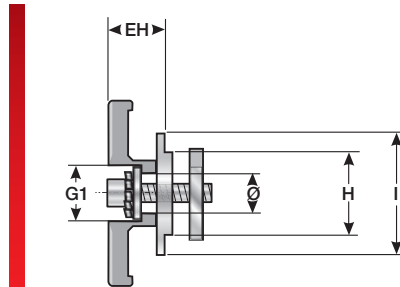
Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 12 mm (0.47 in) C-rail slot Interior width 27 mm (1.06 in) Brass disc 1.4301 stainless steel screw with metric thread Stainless steel slot nut 1.4301									
ZL-SW 39	87702410	1.52	0.77	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 60	87702412	2.34	1.71	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 87	87702414	3.41	2.68	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 103	87702416	4.04	3.31	1.57	0.47	0.47	0.46	0.71	0.24



Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
ZL-SW 121	87702418	4.76	4.04	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 140	87702420	5.49	4.76	1.57	0.47	0.47	0.46	0.71	0.24
ZL-SW 180/6	87702422	7.09	6.18	1.65	0.53	0.47	0.46	0.71	0.24

Strain relief, type ZL-C



PRODUCT INFORMATION

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

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

SPECIFICATIONS

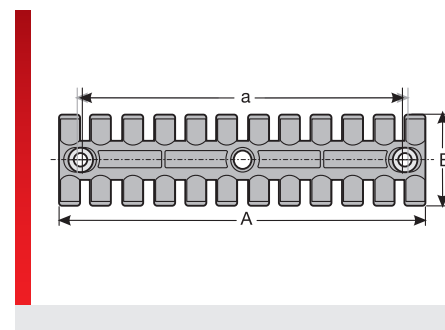
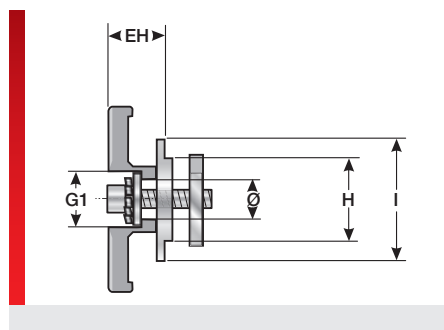
-  -40.00 – 257.00 °F
-  Polyamide 6.6
-  V0

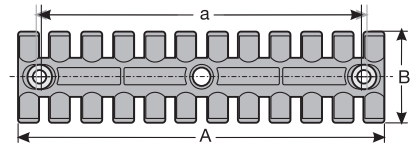
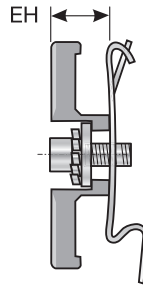


Type	Part number	Color	No. Cables	Pack qty.
For 11 mm (0.43 in) C-rail slot Interior width 21 mm (0.83 in) Brass disc Steel screw with metric thread Steel slot nut				
ZL-C 39	87702810	black	3.00	1.00
ZL-C 60	87702812	black	4.00	1.00
ZL-C 80	87702814	black	6.00	1.00
ZL-C 87	87702816	black	6.00	1.00
ZL-C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

Dimension table

Type	Part number	A inch	a inch	B inch	EH inch	G1 inch	H inch	I inch	Ø inch
For 11 mm (0.43 in) C-rail slot Interior width 21 mm (0.83 in) Brass disc Steel screw with metric thread Steel slot nut									
ZL-C 39	87702810	1.52	0.77	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 60	87702812	2.34	1.71	1.57	0.47	0.47	0.42	0.71	0.35
ZL-C 80	87702814	3.13	2.68	1.57	0.47	0.47	0.42	0.71	0.35

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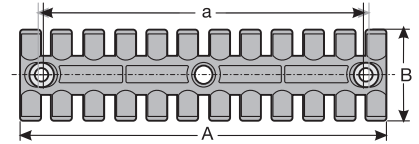
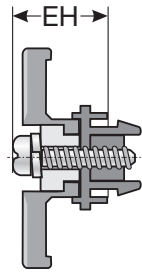


- Quick and easy to assemble and disassemble without the need for tools.
- Orderly routing of the cable
- Simple and effective strain relief through cable ties
- Approved for railway technology (EN 45545-2:2013)

	-40.00 – 257.00 °F
	Polyamide 6.6
	V0

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

Type	Part number	A inch	a inch	B inch	EH inch
ZL-MF 39	87702610	1.52	0.77	1.57	0.39
ZL-MF 70	87702614	2.74	1.71	1.57	0.39
ZL-MF 140	87702622	5.49	4.76	1.57	0.39



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

	-40.00 – 257.00 °F
	Polyamide 6.6
	V0



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

Type	Part number	A inch	a inch	B inch	EH inch
ZLF 39	87701410	1.52	0.77	1.57	0.67
ZLF 60	87701412	2.34	1.71	1.57	0.67
ZLF 87	87701414	3.41	2.68	1.57	0.67
ZLF 103	87701416	4.04	3.31	1.57	0.67
ZLF 121	87701418	4.76	4.04	1.57	0.67
ZLF 140	87701420	5.49	4.76	1.57	0.67

Two black plastic manifolds are shown against a white background. The top manifold is rectangular with a series of ports of varying sizes along its length and two larger circular ports on the right side. The bottom manifold is similar in design but has a different arrangement of ports, with a more uniform size for the central series of ports. Both components appear to be made of a dark, matte plastic material.

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

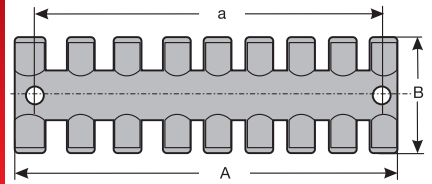
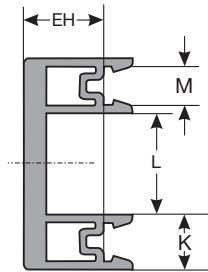
- Enormous time savings in assembly
- High packing density
- Standard cut-out dimensions
- Large wire diameter ranges
- Easy assembly
- High degree of strain relief

 -22.00 – 212.00 °F

 TPE

 HB

[illegible]



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

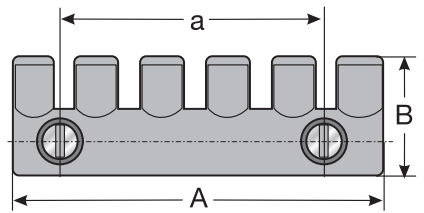
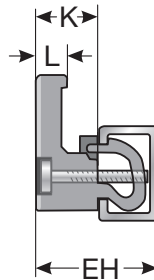
	-40.00 – 257.00 °F
	Polyamide 6.6
	V0



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

Type	Part number	A inch	B inch	a inch	EH inch	K inch	L inch	M inch
KAF 11	87201010	0.45	1.57		0.43	0.53	0.47	0.37
KAF 75	87201014	2.95	1.57	2.48	0.43	0.53	0.47	0.37
KAF 140	87201018	5.49	1.57	5.03	0.43	0.53	0.47	0.37

Cable fixing plate, type KAF/NI



PRODUCT INFORMATION

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

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

SPECIFICATIONS

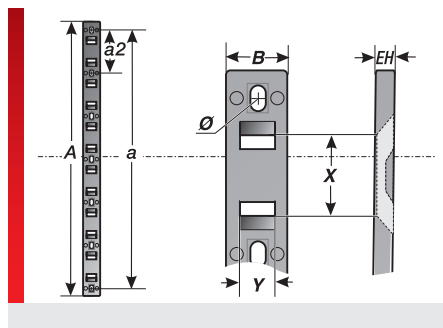
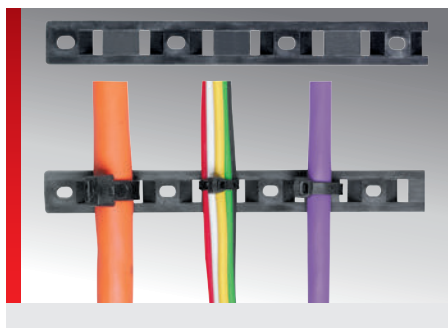
 -40.00 – 257.00 °F
 Polyamide 6.6
 V0

Type	Part number	Color	No. Cables	Pack qty.
KAF/NI 100	87201006	black	6.00	1.00

Dimension table

[illegible]

Cable tie rail, type KBL



PRODUCT INFORMATION

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

SPECIFICATIONS

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

RoHS

Made in Germany

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

Dimension table

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