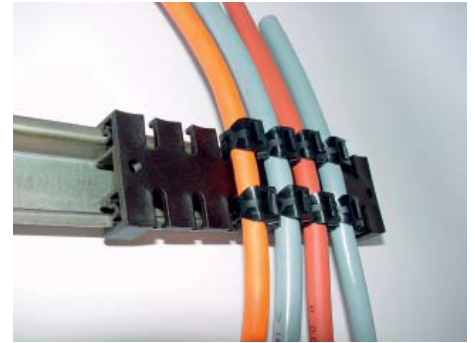
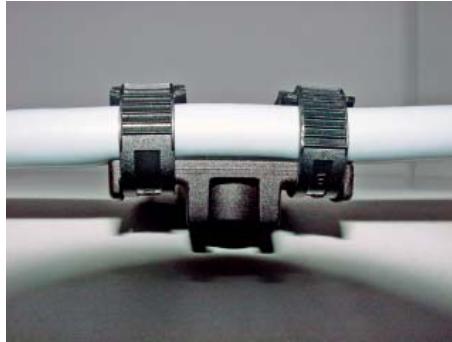


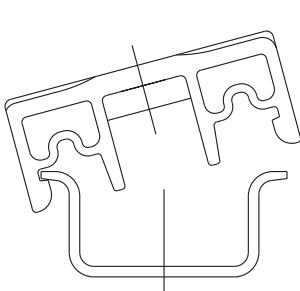
KZL strain relief plates

Innovative – functional – effective

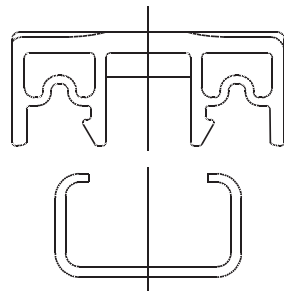


Strain relief systems KZL and ZL are used for organising different cables on machines and control panels. Through highly flexible power cable ties in combination with an undercut at the comb-shaped profile of the KZL / ZL a secure strain relief according to **DIN-EN-50262** is achieved.

KZL strain relief systems



DIN-rails shape "H" EN 50022



C-rails EN 50024

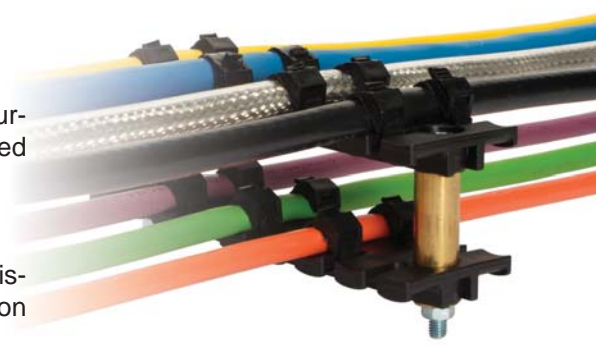
Strain relief plates KZL are available for **30 mm DIN-rails shape "C"**-or **35 mm DIN-rails shape "H"**. Strain relief of the cables is achieved through cable ties. Undercuts at the teeth of the KZL prevent slipping-out of cable ties.

KZL train relief systems						
Description	Type	Order No. DIN-rails shape "H"	Order No. C-rails	Length	PU	
 38,5 KZL 39	KZL 39	32260	32261	39 mm	10	
 79,5 KZL 80	KZL 80	32262	32263	80 mm	10	
 140 40 16 11 KZL 140	KZL 140	32264	32265	140 mm	10	
Specification: UL-94 V0, self-extinguishing, halogen-free, silicone-free						

ZL strain relief plates

Strain relief types ZL 03-04-05 feature different comb-widths. Thus a multi-purpose, flexible application for different cable diameters is enabled. Cables are fixed to the ZL-plate with power cable ties (type KB 28).

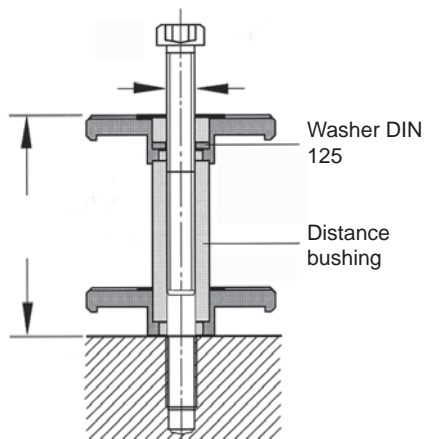
Undercuts at the single comb-elements assure strong fixing of cable ties. For multilayer installation (plates mounted on top of each other) please use distance bush type DH. Plate ZL is used for strain relief, to install different cables on machines and plant.



ZL strain relief plates

Description	Type	Order No.	Length in mm	No. of teeth	PU
	ZL 03	32112	64	4 / 7	10
	ZL 04	32114	96	6 / 11	10
	ZL 05	32116	119	7 / 13	10
	DH 30	32251	Distance bushing		10
	KB 28	61225	Power cable ties		100

Standard fixing





ZL strain relief systems

For static and dynamic installation of cables.
On machines, plant and cable drag chains.

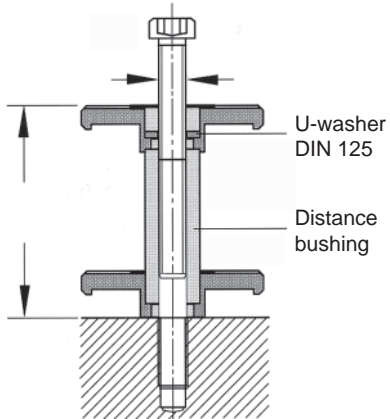
ZL strain relief systems

Description	Type	Order No.	Length in mm	No. of teeth	PU
	ZL 39	32222	38.5	3	10
	ZL 60	32224	59.5	4	10
	ZL 70	32226	69.1	5	10
	ZL 87	32228	86.5	6	10
	ZL 103	32230	102.5	7	10
	ZL 121	32232	121.0	8	10

ZL strain relief systems

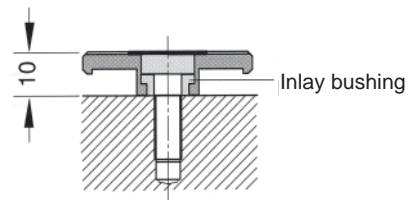
Description	Type	Order No.	Length in mm	No. of teeth	PU
	ZL 140	32234	139.5	9	10
	ZL 180	32236	180.0	12	10
Specification: Material strain relief plate: Polyamide Material inlay bushing: Aluminium UL-94 V0, self-extinguishing, halogen-free, silicone-free	ELB 4.1	32257	Inlay bushing \varnothing 4.1 mm. Aluminium		10
	ELB 5.2	32256	Inlay bushing \varnothing 5.2 mm. Aluminium		10
	ELB 6.2	32258	Inlay bushing \varnothing 6.2 mm. Aluminium		10
	DH 32	32252	Distance bushing h 32 mm, \varnothing 6,2; \varnothing 12. Alu.		10
	KB 28	61225	Bundle area max 28 mm		100

Standard fixing for multi-layer

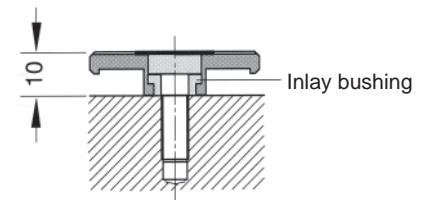


Installation Metal on metal

Inlay bushing for M5-screws



Inlay bushing for M6-screws



Strain relief systems equipped with inlay bushing

 <p>Specification: Material strain relief plate: Polyamide Material inlay bushing: Aluminium UL-94 V0, self-extinguishing, halogen-free, silicone-free</p>	Type	Order No. Version with bushing 4,1 mm Internal diameter	Order No. Version with bushing 5,2 mm Internal diameter	Order No. Version with bushing 6,2 mm Internal diameter	Length in mm	No. of teeth	PU
	ZL-AB 39	32270	32280	32290	38.5	3	10
	ZL-AB 60	32271	32281	32291	59.5	4	10
	ZL-AB 70	32272	32282	32292	69.1	5	10
	ZL-AB 87	32273	32283	32293	86.5	6	10
	ZL-AB 103	32275	32284	32294	102.5	7	10
	ZL-AB 121	32277	32285	32295	121	8	10
	ZL-AB 140	32274	32286	32296	139.5	9	10
ZL-AB 180	32276	32287	32297	180	12	10	

SF/ZL strain relief plates

The basis for this system is the reliable strain relief type ZL, which is pre-assembled on snap-feet type SF. Thus "snap on"- assembly onto a 35 mm-DIN rail shape "H" can be made. This system can be seen as supplement to our strain relief system KZL, as now a bandwidth of 39 mm to 180 mm is covered.



ZL-side view



SF/ZL strain relief plates ZL with snap foot SF for assembly on 35 mm DIN-rails shape "H"

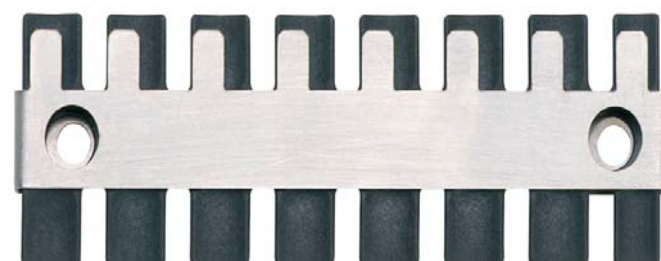
 <p>Specification: Material ZL plate: Polyamide Material SF/foot: Spring steel UL-94 V0, self-extinguishing, halogen-free, silicone-free</p>	Type	Order No.	Length in mm	PU
	SF/ZL 39	32351	38.5	10
	SF/ZL 60	32352	59.5	10
	SF/ZL 70	32353	69.1	10
	SF/ZL 87	32354	86.5	10
	SF/ZL 103	32355	102.5	10
	SF/ZL 121	32356	121	10
	SF/ZL 140	32357	139.5	10
	SF/ZL 180	32358	180	10

ZL/SB-EMV shield plate for strain relief plates

Shield plate ZL./SB-EMC enables contacting of the cable shield to the ground. On strain relief plate ZL the shield plate ZL./SB-EMC is assembled. The result is a secure low-ohm connection between cable shield and ground. For fixation of ZL we recommend usage of inlay bushing ELB.



SB-EMC shield plate



ZL strain relief plate (must be ordered separately)

ZL/SB-EMC shield plates

Description	Type	Order No.	Fits	PU
	ZL 39/SB-EMV	36322	ZL 39	10
	ZL 60/SB-EMV	36328	ZL 60	10
	ZL 87/SB-EMV	36324	ZL 87	10
	ZL 121/SB-EMV	36330	ZL 121	10
	ZL 140/SB-EMV	36326	ZL 140	10

Specification: Stainless steel