

Features

- Glass fiber reinforced polyester enclosures
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex e, Ex ia and Ex tb certified
- Modern enclosure design with high impact resistance
- Easy installation due to easily accessible mounting points
- Prefabricated mounting grid for flexible arrangement of internal components
- Durable IP degree of protection due to foamed gasket and protected sealing area
- Easy cover opening without damage due to multiple pry points
- Withstands temperatures down to -60 °C
- Customizable configuration of terminals, cable entries and cable gland types as per specification
- Sturdy hinges as option



Function

The GR.* series can be equipped with various types and quantities of terminals, entry devices and accessories. Pepperl+Fuchs solution engineering teams provide any custom configurations including combinations of terminals and controls.

This standardized enclosure series for all Pepperl+Fuchs products consists of carbon-loaded, glass-fiber reinforced polyester with stainless steel cover screws. The GR.* series provides an anti-static, UV stabilized and corrosion resistant solution. Many features provide for easy installation and handling.

It is certified for operation in low temperatures of down to -60 °C and thus can be applied in many applications as a replacement for stainless steel.



Type Code / Model Number

Enclosure type

GR glass fiber reinforced polyester (GRP)

Type of solution

TJE junction box (Ex e)

TJI junction box (Ex i)

TBE terminal box (Ex e)

TBI terminal box (Ex i)

TBM terminal box, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)

TB1 terminal box with one terminal

TFO fiber optic splice box (Ex op pr)

Height [cm]

n see dimensions data table

Width [cm]

n see dimensions data table

Depth [cm]

n see dimensions data table

Cable entry face orientation

B face [B] at bottom

D face [D] at bottom

Variant type

S standard product

C configured product

CA configured and adapted product

Y engineered product

Variant number

xxxxxx

GR	.TBI	.13	.18	.09	.B	-S	xxxxxx
----	------	-----	-----	-----	----	----	--------

Example: Terminal box for intrinsically safe circuits, size 13x18x9 cm, landscape orientation with face B at bottom

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0002
pa-info@us.pepperl-fuchs.com

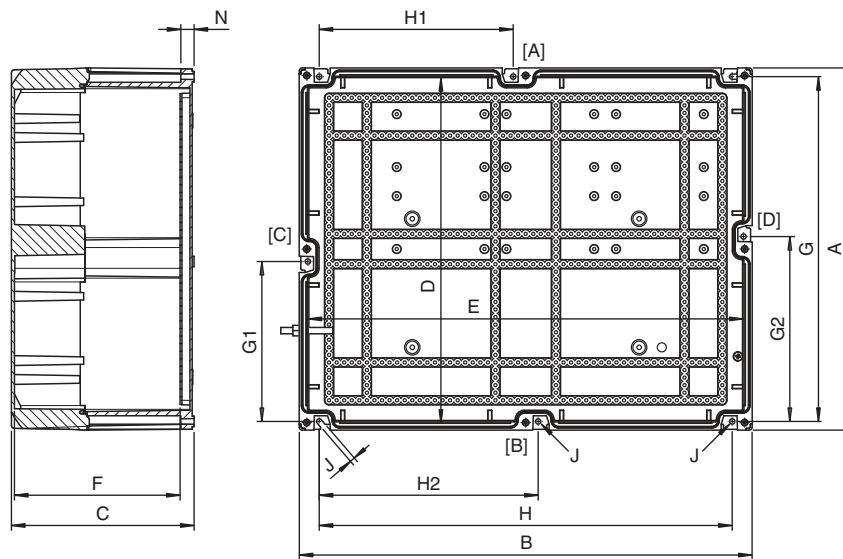
Germany: +49 621 776 2222
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
pa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data	
Electrical specifications	
Operating voltage	690 V AC max., depending on size and certification
Operating current	350 A max., depending on size and certification
Mechanical specifications	
Dimensions	see data table
Enclosure cover	fully detachable, optional hinges
Cover fixing	stainless steel combination Phillips and slotted screw, see data table
Degree of protection	IP66
Mass	see data table, valid for empty enclosure, will increase according to integrated components
Mounting	see data table
Cable entry	see data table
Terminal type	Standard see data table, other terminal types optional
Material	
Enclosure	carbon loaded, antistatic glass fiber reinforced polyester (GRP)
Finish	inherent color black
Cover seal	foamed silicone
Grounding	none as standard optional M6 or M8 internal/external brass-nickel plated grounding bolt optional M6 or M8 internal/external stainless steel grounding bolt
Grounding plate	2 mm brass optional
Ambient conditions	
Ambient temperature	-60 ... 65 °C (-76 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 17 ATEX 3255X CML 17 ATEX 3084U
Marking	 II 2 GD Ex eb IIC T* Gb Ex ia IIC T* Gb Ex tb IIIC T** °C Db T6/T80 °C @ Ta +40 °C T5/T95 °C @ Ta +55 °C T4/T130 °C @ Ta +65 °C
Maximum power dissipation	see data table
International approvals	
IECEX approval	IECEX CML 17.0144X IECEX CML 17.0039U
EAC approval	RU C-DE.BH02.B.00016/18
CCoE approval	PESO A/P/HQ/KA/104/5627 (P432459)
IA approval	MASC S/18-1639X MASC S/18-1359U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .
Ordering information	This terminal box will be delivered completely configured and assembled ready for use. For configuration details please contact customer service.
Accessories	
Optional accessories	M6 or M8 internal/external brass nickel-plated grounding bolts M6 or M8 internal/external stainless steel grounding bolts grounding plate, brass mounting plate, stainless steel hinges, polyamide mounting block for DIN mounting rail, polyamide engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label

Dimensions



Legend

A	Height
B	Width
C	Depth
D	Internal height
E	Internal width
F	Internal depth
G	Mounting holes distance, vertical
G1	Mounting holes distance to middle hole 1, vertical (not with all variants)
G2	Mounting holes distance to middle hole 2, vertical (not with all variants)
H	Mounting holes distance, horizontal
H1	Mounting holes distance to middle hole 1, horizontal (not with all variants)
H2	Mounting holes distance to middle hole 2, horizontal (not with all variants)
J	Mounting holes diameter
N	Thickness of mounting brackets
[A] ... [D]	Cable entry faces

Dimension values see technical data table.
Image and drawing are generic for this enclosure type and may deviate from the specific variant.

Dimensions and Enclosure Details

Type	External dimensions [mm]			Internal dimensions [mm]			Mounting [mm]										Mass approx. [kg]	Cover screws			Max. power dissipation [W]
	A	B	C	D	E	F	G	G1	G2	H	H1	H2	J	N	Screws qty.	Mx		qty.	Torque [Nm]		
GR.T*.10.10.07	99	99	65	76	76	48	66	-	-	84	-	-	5	13	2	0.35	M4	4	1.5	3.2	
GR.T*.13.13.09	129	129	85	106	106	68	96	-	-	114	-	-	5	13	2	0.61	M4	4	1.5	6.7	
GR.T*.13.18.09	129	179	91.5	106	156	69	106	-	-	126	-	-	7	18	2	1	M6	4	3.5	11	
GR.T*.18.18.10	179	179	104	156	156	81.5	126	-	-	156	-	-	7	18	2	1.4	M6	4	3.5	14	
GR.T*.18.24.10	179	239	104	156	216	81.5	156	-	-	186	-	-	7	18	2	1.7	M6	4	3.5	17	
GR.T*.18.36.10	179	359	104	156	336	71.5	156	-	-	306	-	-	7	18	4	2.4	M6	4	3.5	22	
GR.T*.18.36.17	179	359	166.5	156	336	144	156	-	-	336	-	-	7	18	4	3.1	M6	4	3.5	27	
GR.T*.36.36.10	359	359	104	336	336	81.5	306	-	-	336	-	-	7	18	4	3.7	M6	4	3.5	33	
GR.T*.36.36.17	359	359	166.5	336	336	144	306	-	-	336	-	-	7	18	4	4.6	M6	4	3.5	39	
GR.T*.36.36.24	359	359	241.5	336	336	219	306	-	-	336	-	-	7	18	4	6.6	M6	4	3.5	44	
GR.T*.36.72.17	359	719	166.5	336	696	144	336	-	-	666	316.5	349.5	7	18	6	8.3	M6	6	3.5	104	
GR.T*.36.72.24	359	719	241.5	336	696	219	336	-	-	666	316.5	349.5	7	18	6	11.3	M6	6	3.5	104	
GR.T*.48.60.24	479	599	241.5	456	576	219	456	211.5	244.5	546	256.5	289.5	7	18	8	12.2	M6	8	3.5	72	

Mass is valid for empty enclosure, it will increase according to integrated components and cable glands

Terminal Configurations with Standard Terminals

Type	DIN-Rails vertical				DIN-Rails horizontal				Terminal type	Terminal capacity [mm²]
	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total	Number of rails	Usable length per rail [mm]	Terminals per rail	Terminals total		
GR.T*.10.10.07	-	-	-	-	1	47.5	9	9	AKZ	2.5
GR.T*.13.13.09	-	-	-	-	1	67.5	13	13	AKZ	2.5
GR.T*.13.18.09	1	66.5	13	13	1	101.5	19	19	WDU	2.5
GR.T*.18.18.10	1	101.5	19	19	1	101.5	19	19	WDU	2.5
GR.T*.18.24.10	1	101.5	19	19	1	161.5	31	31	WDU	2.5
GR.T*.18.36.10	3	101.5	19	57	1	281.5	55	55	WDU	2.5
GR.T*.18.36.17	3	101.5	19	57	1	281.5	55	55	WDU	2.5
GR.T*.36.36.10	3	281.5	55	165	3	281.5	55	165	WDU	2.5
GR.T*.36.36.17	3	281.5	55	165	3	281.5	55	165	WDU	2.5
GR.T*.36.36.24	3	281.5	55	165	3	281.5	55	165	WDU	2.5
GR.T*.36.72.17	6	271.5	53	318	3	641.5	125	375	WDU	2.5
GR.T*.36.72.24	6	271.5	53	318	3	641.5	125	375	WDU	2.5
GR.T*.48.60.24	5	381.5	74	370	4	501.5	98	392	WDU	2.5

For other terminal types and terminal capacities please contact Pepperl+Fuchs

Cable Entries max. Quantity per Size

Type	Faces A and B					Faces C and D				
	M16	M20	M25	M32	M40	M16	M20	M25	M32	M40
GR.T*.10.10.07	4	2	1	1	-	2	1	1	-	-
GR.T*.13.13.09	9	5	3	2	1	6	4	2	2	1
GR.T*.13.18.09	11	6	4	2	2	8	4	2	1	1
GR.T*.18.18.10	15	8	6	3	2	12	6	5	2	2
GR.T*.18.24.10	20	11	8	4	3	15	8	6	3	2
GR.T*.18.36.10	30	18	11	6	4	14	8	5	3	2
GR.T*.18.36.17	60	33	22	15	8	27	15	10	6	4
GR.T*.36.36.10	35	18	13	7	5	30	18	11	6	4
GR.T*.36.36.17	69	38	26	18	10	60	33	22	15	8
GR.T*.36.36.24	69	38	26	18	10	60	33	22	15	8
GR.T*.36.72.17	129	73	48	35	19	69	38	26	18	10
GR.T*.36.72.24	129	73	48	35	19	69	38	26	18	10
GR.T*.48.60.24	102	58	38	26	14	84	45	30	20	12

Cable gland standard type: polyamide Ex e cable glands

For other types of cable glands and combinations of different gland sizes please contact Pepperl+Fuchs

