



- Small, robust Ex e enclosure for distributing electrical energy
- IP66 degree of protection
- Equipped with 4 mantle terminals and 1 PE connection
- Available with plastic semi-glands or cable glands

E3



WebCode **8102A**



R. STAHL junction boxes from series 8102 are small Ex e enclosures for conducting and distributing electrical energy in hazardous areas. They are made from glass-fibre-reinforced polyester resin and are therefore extremely robust. The junction box has 5 mantle terminals, whereby one is used as a PE connection point. The cable dia. range of the mantle terminals is 2 x 4 mm<sup>2</sup>.

	IECEX / ATEX					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table						
Product Description		Ex e junction box				
Figure	Product Type	Cable glands	Terminal	Art. No.	Weight	
	8102/21-42-C1151	2 x 8161/7-M20-1304 Polyamide cable gland M20 x 1.5 (4 – 13 mm) 1 x 8161/7-M25-1707 Polyamide cable gland M25 x 1.5 (7 – 17 mm) 1 x 8290/3-M20 Polyamide stopping plug, provided separately M20 x 1,5	5 x Mantle terminal 4 mm <sup>2</sup>	132979	0.330 kg	
	8102/21-32	3 x 8161/7-M20-1304 Polyamide cable gland, black M20 x 1.5 (4 – 13 mm)	5 x Mantle terminal 4 mm <sup>2</sup>	218559 ■	0.330 kg	
	8102/21-32-C995	3 x 8161/7-M20-1307 Polyamide cable gland, black M20 x 1.5 (7 – 13 mm)	5 x Mantle terminal 4 mm <sup>2</sup>	132973 ■	0.200 kg	
	8102/21-32-C1013	2 x 8161/7-M20-1304 Polyamide cable gland, black M20 x 1.5 (4 – 13 mm) 1 x 8290/3-M20 Polyamide stopping plug M20 x 1.5	5 x Mantle terminal 4 mm <sup>2</sup>	132975 ■	0.330 kg	
	8102/21-31	3 x Semi-gland M20 (6.5 – 14 mm)	5 x Mantle terminal 4 mm <sup>2</sup>	132988 ▲	0.300 kg	

Selection Table					
Product Description		Ex i junction box			
Figure	Product Type	Cable glands	Terminal	Art. No.	Weight
	8102/22-32	3 x 8161/8-M20-1304 Polyamide cable gland, blue M20 x 1.5 (4 – 13 mm)	5 x Mantle terminal 4 mm <sup>2</sup>	261597 ▲	0.330 kg
	8102/22-31	3 x Semi-gland M20 (6.5 – 14 mm)	5 x Mantle terminal 4 mm <sup>2</sup>	132989 ▲	0.300 kg

Technical Data				
Variant	Ex e junction box with semi-glands	Ex e junction box	Ex i junction box with semi-glands	Ex i junction box
<b>Explosion Protection</b>				
Scope of validity	IECEX European Union (ATEX)	IECEX European Union (ATEX)	IECEX European Union (ATEX)	IECEX European Union (ATEX)
IECEX gas explosion protection	Ex eb IIC T6 / T5 Gb	Ex eb IIC T6 / T5 Gb	Ex ia ib IIC T6 Gb	Ex ia ib IIC T6 Gb
IECEX dust explosion protection	Ex tb IIIC T80 °C / T90 °C Db	Ex tb IIIC T80 °C / T90 °C Db	Ex tb IIIC T80 °C Db	Ex tb IIIC T80 °C Db
ATEX gas explosion protection	⊕ II 2 G Ex eb IIC T6 / T5 Gb	⊕ II 2 G Ex eb IIC T6 / T5 Gb	⊕ II 2 G Ex ia ib IIC T6 Gb	⊕ II 2 G Ex ia ib IIC T6 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T80 °C / T90 °C Db	⊕ II 2 D Ex tb IIIC T80 °C / T90 °C Db	⊕ II 2 D Ex tb IIIC T80 °C Db	⊕ II 2 D Ex tb IIIC T80 °C Db
Certificates	ATEX (PTB), IECEX (PTB)	ATEX (PTB), IECEX (PTB)	ATEX (PTB), IECEX (PTB)	ATEX (PTB), IECEX (PTB)
Notes	For product label, see scope of validity.			
<b>Electrical Data</b>				
Rated operational voltage AC	0 – 690 V	0 – 690 V	0 – 60 V	0 – 60 V
Rated operational current	16 A (T6) 25 A (T5)	16 A (T6) 25 A (T5)	10 A (T6)	10 A (T6)
<b>Ambient Conditions</b>				
Ambient temperature	-50 °C ... +55 °C (T6) -50 °C ... +70 °C (T5)	-40 °C ... +40 °C (T6) -40 °C ... +70 °C (T5)	-50 °C ... +70 °C (T6)	-40 °C ... +70 °C (T6)
<b>Mechanical Data</b>				
Enclosure material	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced

Terminal compartment						
Housing/ types of terminals/ terminal compartment/ tightening torque	Conductor type	Number of conductors	Conductor cross-section (mm <sup>2</sup> )			
			0.75	1.5	2.5	4
Enclosure: 8102/2 Mantle terminal: M7 x 0.75 Terminal compartment: 3.1 x 5.4 mm Tightening torque: 3.5 Nm	solid	min.	1	1	1	1
		max.	4	4	2	2
	finely stranded, prepared, crimped core end sleeve	min.	1	1	1	
		max.	3	3	2	
	finely stranded, unprepared	min.	1	1	1	1
		max.	4	3	2	2

Note: All conductors of a terminal must have the same cross section and be made of the same material.

# Junction boxes

Series 8102 made of moulded material, with 5 mantle terminals

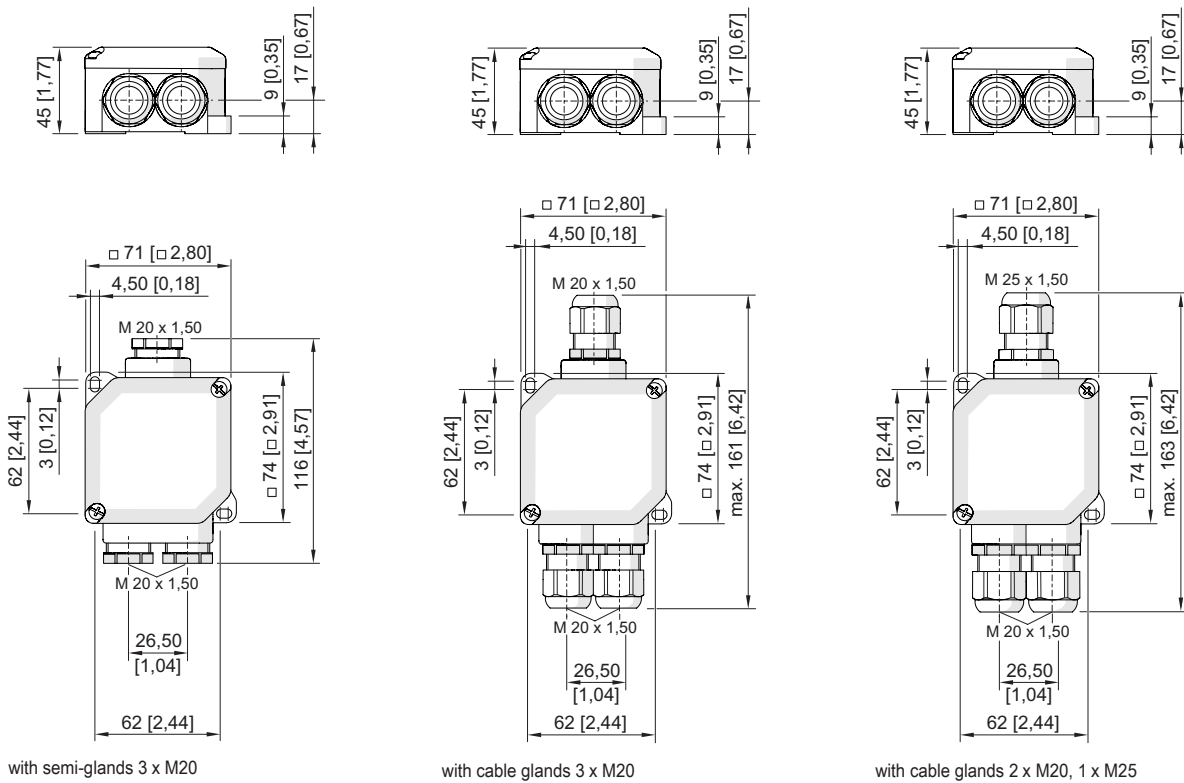


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Accessories			
Figure	Description	Art. No.	Weight
Cable gland made of plastic			
	8161/7-M20-1304, Ex e Plastic, M20 x 1.5, cable outer diameter 4 to 13 mm Lot size 50 pieces	239156 ▲	0.013 kg
	8161/7-M25-1707, Ex e Plastic, M25 x 1.5, cable outer diameter 7 to 17 mm Lot size 50 pieces	239157 ▲	0.019 kg
	8161/8-M20-1304, Ex i Plastic, M20 x 1.5, cable outer diameter 4 to 13 mm Lot size 50 pieces	239164 ▲	0.013 kg
Semi-gland			
	8102 semi-gland 3 x M20	140474	0.019 kg
Stopping plug			
	8290/3-M20 Plastic, M20 x 1.5 Lot size 1 piece	143522 ▲	0.007 kg

Batch size: Purchase order quantity in [no. of units]; the delivery quantity is automatically rounded to the batch size.

## Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



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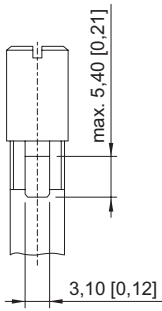


Diagram of the available connection chamber of the mantle terminal