

# Terminal boxes with WAGO 221 Ex

Series 8118 made of moulded material



E3



- Compact, impact-resistant enclosure with increased safety (Ex e) type of protection
- Versions available with integrated metal bracket for optimised installation of metal cable glands
- Pre-installed fixing carrier for WAGO 221 Ex connection terminals
- Simple, fast and safe installation of electrical lines with spring lever technology
- A range of clamping cross-sections from 0.14 to 4 mm<sup>2</sup> can be installed for each connection clamping unit
- Use of core end sleeves not necessary for stranded or finely stranded conductors
- 2-, 3- and 5-way terminal blocks available as accessories

## MY R. STAHL 8118D



R. STAHL Series 8118 terminal boxes with WAGO 221 Ex connection terminals are made of glass fibre reinforced polyester resin. They are available in 2 design sizes and can be flexibly equipped with plastic or metal cable glands. They combine the advantages of the simple WAGO 221 connection terminal installation technology with proven R. STAHL enclosures with increased safety (Ex e) type of protection.

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

Selection Table							
Product Description	Ex e terminal box						
Ambient temperature	-55 °C ... +40 °C (T6)						
Ambient temperature	-55 °C ... +55 °C (T5)						
Ambient temperature	-67°F ... +104°F (T6)						
Ambient temperature	-67°F ... +131°F (T5)						
Figure	Product Type	Cable glands	Terminal	Terminal rail	Rated operational voltage AC	Art. No.	Weight
	8118/122-199-C2374	5 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm)	6 x WAGO 221-485 5 conductor 4 mm <sup>2</sup> , light grey	35 x 90 mm (1x)	440 V	276883	700 g
	8118/122-141-0	2 x 8161/7-M20-1304-LT Polyamide cable gland, black with plug M20 x 1.5 (4 – 13 mm) 1 x 8290/3-M20 Polyamide stopping plug (Provided separately) M20 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289846	500 g
	8118/122-138-0	4 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm)	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289849	500 g
	8118/122-131-0	3 x 8161/7-M20-1304-LT Polyamide cable gland, black with plug M20 x 1.5 (4 – 13 mm) 1 x 8290/3-M20 Polyamide stopping plug (Provided separately) M20 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289845	500 g

**Selection Table**

Figure	Product Type	Cable glands	Terminal	Terminal rail	Rated operational voltage AC	Art. No.	Weight
Product Description Ambient temperature Ambient temperature		Ex e terminal box -55 °C ... +40 °C (T6) -55 °C ... +55 °C (T5) -67°F ... +104°F (T6) -67°F ... +131°F (T5)					
	8118/122-118-0	4 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm)	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	273361	620 g
	8118/122-107-0	4 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm) 2 x 8290/3-M25 Polyamide stopping plug (Provided separately) M25 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289847	500 g
	8118/122-106-0	4 x 8161/7-M20-1304-LT Polyamide cable gland, black with plug M20 x 1.5 (4 – 13 mm) 2 x 8290/3-M20 Polyamide stopping plug (Provided separately) M20 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289844	500 g
	8118/122-105-0	3 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm) 1 x 8290/3-M25 Polyamide stopping plug (Provided separately) M25 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	440 V	289848	500 g
	8118/132-149-0	6 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm)	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 120 mm (1x)	440 V	277900	860 g
	8118/132-117-0	6 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm)	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 120 mm (1x)	440 V	273362	820 g
	8118/132-114-0	6 x 8161/7-M25-1707-LT Polyamide cable gland, black with plug M25 x 1.5 (7 – 17 mm) 2 x 8290/3-M25 Polyamide stopping plug (Provided separately) M25 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 120 mm (1x)	440 V	289871	600 g
	8118/132-111-0	4 x 8161/7-M32-2109-LT Polyamide cable gland, black with plug M32 x 1.5 (9 – 21 mm) 2 x 8290/3-M32 Polyamide stopping plug (Provided separately) M32 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 120 mm (1x)	440 V	289820	500 g

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Selection Table							
Product Description		Ex i terminal box					
Ambient temperature		-55 °C ... +75 °C (T6)					
Ambient temperature		-40°F ... +167°F (T6)					
Figure	Product Type	Cable glands	Terminal	Terminal rail	Rated operational voltage AC	Art. No.	Weight
	8118/222-150-0	2 x 8161/8-M20-1304-LT Polyamide cable gland, blue with plug M20 x 1.5 (4 – 13 mm)	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	60 V	289874	500 g
	8118/222-141-0	2 x 8161/8-M20-1304-LT Polyamide cable gland, blue with plug M20 x 1.5 (4 – 13 mm) 1 x 8290/3-M20 Polyamide stopping plug (Provided separately) M20 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	60 V	289873	500 g
	8118/222-131-0	3 x 8161/8-M20-1304-LT Polyamide cable gland, blue with plug M20 x 1.5 (4 – 13 mm) 1 x 8290/3-M20 Polyamide stopping plug (Provided separately) M20 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	60 V	289872	500 g
	8118/222-104-0	2 x 8161/8-M25-1707-LT Polyamide cable gland, blue with plug M25 x 1.5 (7 – 17 mm) 1 x 8290/3-M25 Polyamide stopping plug (Provided separately) M25 x 1.5	1 x WAGO 221-482 2 conductor 4 mm <sup>2</sup> , light grey	35 x 100 mm (1x)	60 V	289875	500 g

"—" = marking for installation option  
Enclosure equipped with terminals and cable glands with plugs

Technical Data		
Variant	Ex e terminal box	Ex i terminal box
Explosion Protection		
Area of application	European Union (ATEX) IECEX	European Union (ATEX) IECEX
IECEX gas explosion protection	Ex eb IIC T6 / T5 Gb	Ex ia ib IIC T6 Gb
IECEX dust explosion protection	Ex tb IIIC T80 °C / T95 °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 ia ib IIC T6 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T80 °C / T95 °C Db	⊕ II 2 D Ex tb IIIC T80 °C Db
Certificates	ATEX (PTB), Brazil (ULB), China (NEPSI), IECEX (PTB), India (PESO), Korea (KTL)	ATEX (PTB), Brazil (ULB), China (NEPSI), IECEX (PTB), India (PESO)
Declaration of conformity	China (CCC)	China (CCC)
Notes	For product label, see area of application.	
Mechanical Data		
Enclosure material	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced
Silicone-free	No	No
Connection cross-section note	Min. clamping range: 0.2 mm <sup>2</sup> (solid, stranded)/0.14 mm <sup>2</sup> (finely stranded). It is possible to connect conductors with different cross sections. Use only in connection with fixing carrier type no. 272625.	Min. clamping range: 0.2 mm <sup>2</sup> (solid, stranded)/0.14 mm <sup>2</sup> (finely stranded). It is possible to connect conductors with different cross sections. Use only in connection with fixing carrier type no. 272625.
Components		
Note mounting carriers	A mounting foot must be installed between the fixing carriers in order to maintain the creepage distances and clearances for 440 V.	A mounting foot must be installed between the fixing carriers in order to maintain the creepage distances and clearances for 440 V.

Technical Data		
Variant	Ex e terminal box	Ex i terminal box
Components		
Note connection terminal	<p>The connection terminals must be fixed to the fixing carrier.                      Maximum equipping per fixing carrier: (Max. ten clamping units per fixing carrier)                      5 x 2-wire connection terminals (275 V),                      4 x 2-wire connection terminals (440 V),                      3 x 3-wire connection terminals (440 V),                      2 x 5-wire connection terminals (440 V).                      At a rated operational voltage &gt; 275 V, a slot between the each of the connection terminals must remain free. This means that the maximum equipping is reduced to 4 x 2-wire connection terminals per fixing carrier.                      Number of fixing carriers:                      max. 3 pieces for enclosure size 8118/2                      max. 5 pieces for enclosure size 8118/3</p>	<p>The connection terminals must be fixed to the fixing carrier.                      Maximum equipping per fixing carrier: (Max. ten clamping units per fixing carrier)                      5 x 2-wire connection terminals (275 V),                      4 x 2-wire connection terminals (440 V),                      3 x 3-wire connection terminals (440 V),                      2 x 5-wire connection terminals (440 V).                      At a rated operational voltage &gt; 275 V, a slot between the each of the connection terminals must remain free. This means that the maximum equipping is reduced to 4 x 2-wire connection terminals per fixing carrier.                      Number of fixing carriers:                      max. 3 pieces for enclosure size 8118/2                      max. 5 pieces for enclosure size 8118/3</p>

Accessories			
Figure	Description	Art. No.	Weight
Connection terminal			
	WAGO 221-482 for 2 x 0.2 to 4 mm <sup>2</sup> Batch size 100 pieces	272622	100 g
	WAGO 221-483 for 3 x 0.2 to 4 mm <sup>2</sup> Batch size 50 pieces	272623	100 g
	WAGO 221-485 for 5 x 0.2 to 4 mm <sup>2</sup> Batch size 25 pieces	272624	100 g
Connection terminal set			
	WAGO 221 installation set Contains 2 x fixing carrier 221-501 for 4 mm <sup>2</sup> 2 x mounting foot 209-120, 6.4 mm 4 x connection terminal 221-482 for 2 x 0.2 to 4 mm <sup>2</sup> 6 x connection terminal 221-483 for 3 x 0.2 to 4 mm <sup>2</sup> 5 x connection terminal 221-485 for 5 x 0.2 to 4 mm <sup>2</sup>	288873	65 g
Fixing carrier			
	WAGO 221-501 for 4 mm <sup>2</sup> , blue	289956	100 g
	WAGO 221-501 for 4 mm <sup>2</sup> Batch size ten pieces	272625	100 g
Mounting foot			
	WAGO 209-120; 6.4 mm Batch size 25 pieces	272626	100 g

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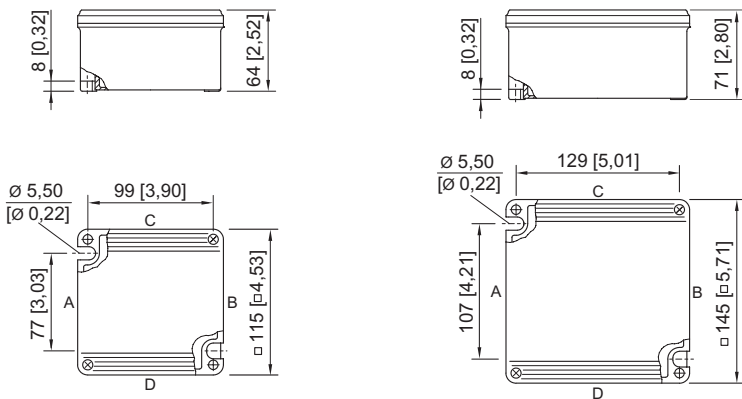
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## Accessories

Figure	Description	Art. No.	Weight	
<b>Plastic cable gland</b>				
	8161/7-M20-1307-LT, Ex e Plastic, M20 x 1.5, cable outer diameter 7 to 13 mm Lot size 50 pieces	239204	13 g	
	8161/7-M25-1710-LT, Ex e Plastic, M25 x 1.5, cable outer diameter 10 to 17 mm Lot size 50 pieces	239205	19 g	
	8161/7-M32-2113-LT, Ex e Plastic, M32 x 1.5, cable outer diameter 13 to 21 mm Lot size 25 pieces	239206	32 g	
	8161/8-M20-1307-LT, Ex i Plastic, M20 x 1.5, cable outer diameter 7 to 13 mm Lot size 50 pieces	239212	13 g	
	8161/8-M25-1710-LT, Ex i Plastic, M25 x 1.5, cable outer diameter 10 to 17 mm Lot size 50 pieces	239213	19 g	
<b>Reduction sealing insert (standard), EPDM (-40 to +75 °C) For cable glands</b>				
	Connection thread: M20 x 1.5 Clamping range: 4 to 8 mm	Batch size: 50	239446	1 g
	Connection thread: M25 x 1.5 Clamping range: 7 to 12 mm	Batch size: 25	239447	3 g
	Connection thread: M32 x 1.5 Clamping range: 9 to 14 mm	Batch size: 25	239448	3 g
<b>Stopping plug</b>				
	8290/3-M20 Plastic, M20 x 1.5 Lot size 100 pieces	285773	500 g	
	8290/3-M25 Plastic, M25 x 1.5 Lot size 100 piece	285774	700 g	
	8290/3-M32 Plastic, M32 x 1.5 Lot size 50 piece	285779	600 g	

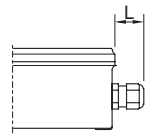
Batch size: Purchase order quantity in [no. of units]; the delivery quantity is automatically rounded to the batch size.

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



8118/.2.  
Enclosure SZ 2

8118/.3.  
Enclosure SZ 3



Length L  
 Projection dimension for cable gland of Series 8161:  
 For M20: 25 to 31 [0.98 to 1.22]  
 For M25: 27 to 33 [1.06 to 1.3]  
 For M32: 32 to 39 [1.26 to 1.54]  
 Projection dimension for cable gland with strain relief  
 of Series HSK-K-MZ  
 For M25: 41 [1.61]