

8146/2051 Art. No. 278806



- Wide range of Ex i terminal boxes in various sizes and materials
- Degree of protection IP66
- Customised equipping in accordance with customer specifications
- Enclosures with captive cover screws
- If required, flange on enclosure sides is possible

MY R. STAHL 8146T



R. STAHL Series 8146 terminal boxes, made of high-quality, glass fiber-reinforced polyester resin, are ideal for use in harsh operating conditions. With eight basic sizes in various heights, they are universally usable. If requested by the customer, they are equipped with series terminals up to 300 mm² and, as an option, a flange on several enclosure sides is possible.

Technical Data

Explosion Protection

Scope of validity	NEC CEC
Application range (Zones)	1 2 21 22
Certification NEC	E177642
Certification CEC	E177642
Marking cUL	Class I, Zone 1 IIC T6 Class I, Div. 1, 2, Groups A,B,C,D Class II, Div. 1, 2, Groups E,F,G Class III Enclosure Type 3, 4, 4X
Certificates	ATEX (PTB), IECEx (PTB), India (PESO), Korea (KGS), Taiwan (ITRI)

Electrical Data

Rated operational voltage AC	0 ... 60 V
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Ambient Conditions

Ambient temperature °C	-50 °C ... +75 °C
Ambient temperature °F	-58 °F ... +167 °F

Mechanical Data

Degree of protection IP (IEC 60529)	IP66
Degree of protection (IP) UL	IP66
Enclosure material	Polyester resin, Glass fibre reinforced
Enclosure color	Dark grey
Flammability according to	IEC/EN 60695 UL 94 ASTM D635
Silicone-free	No
Connection cross-section	2.5 mm ²

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Mechanical Data

Connection cross-section AWG	AWG14
Cover thickness	2.8 mm
Cover thickness inch	0.11 in
Wall thickness	2.8 mm
Wall thickness, inches	0.11 in
Width	170 mm
Width, inches	6.692 in
Height	170 mm
Height, inches	6.692 in
Depth	91 mm
Depth, inches	3.583 in
Weight	8 kg
Weight	17.64 lb

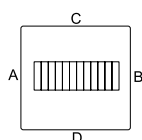
Mounting / Installation

Tightening torque of cover screw 1	4.5 Nm
Tightening torque of cover screw 1 lbf in	39.83 lbf in

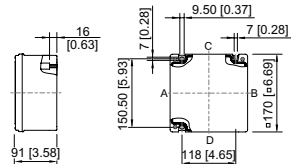
Components

Flange and plates	Without flange
Entries installation options/side	Without drilled holes
Terminal rail	35 x 133 mm (1x)
Terminal rail	1.38 x 5.24" (1x)
Type of terminals 1	1 x Phoenix UT 2-conductor, 2.5 mm ² , blue
PA terminal	1 x Phoenix UT 2.5 mm ² grey

Technical Drawings – Subject to Alterations



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



8146/.051

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.



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WebCode 8146T



R. STAHL Series 8146 terminal boxes, made of high-quality, glass fiber-reinforced polyester resin, are ideal for use in harsh operating conditions. With eight basic sizes in various heights, they are universally usable. If requested by the customer, they are equipped with series terminals up to 300 mm² and, as an option, a flange on several enclosure sides is possible.

	NEC® 500 CEC Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface						
Installation in	•	•	•	•	•	•

	CEC Section 18 NEC® 505					
	Class I					
Zone	0	1	2	20	21	22
Ex interface						
Installation in		•	•		•	•

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

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Selection Table							
Product Description				Ex i terminal box			
Figure	Terminal	Terminal rail	PA terminal	Max. no. of terminals 2.5 mm ² / AWG 14	Product Type	Art. No.	Weight lb
	1 x Phoenix UT 2-conductor, 2.5 mm ² , blue	35 x 133 mm (1x)	1 x Phoenix UT 2.5 mm ² grey	19	8146/2051	278806	2.2
	1 x Phoenix UT 2-conductor, 2.5 mm ² , blue	35 x 189 mm (1x)	1 x Phoenix UT 2.5 mm ² grey	27	8146/2061	278807	3.09
	1 x Phoenix UT 2-conductor, 2.5 mm ² , blue	35 x 301 mm (1x)	1 x Phoenix UT 2.5 mm ² grey	49	8146/2073	278808	4.01
	1 x Phoenix UT 2-conductor, 2.5 mm ² , blue	35 x 301 mm (1x)	1 x Phoenix UT 2.5 mm ² grey	51	8146/2083	278809	10.49

The enclosures are equipped with mounting rails, PE terminals and 1 terminal block of the specified type.

Technical Data		
Explosion Protection		
USA marking	Class I, Div. 1,2, Groups A,B,C,D; Class II, Div. 1,2, Groups E,F,G; Class I, Zone 1, Group IIC T6; Class III	

Technical Data

Explosion Protection

CAN marking	Class I, Div. 1,2, Groups A,B,C,D; Class II, Div. 1,2, Groups E,F,G; Class I, Zone 1, Group IIC T6; Class III
IECEx gas explosion protection	Ex ia ib IIC T6 Gb
IECEx dust explosion protection	Ex tb IIIC T80 °C Db
Certificates	ATEX (PTB), Brazil (ULB), China (NEPSI), IECEx (PTB), India (PESO), Korea (KGS), Taiwan (ITRI)
Ship approval	BVIS

Electrical Data

Rated operational voltage AC IEC	60 V
Notes	depend on the terminal type used and the explosion protected components

Ambient Conditions

Ambient temperature °F	-58 °F ... +167 °F
Ambient temperature °C	-50 °C ... +75 °C

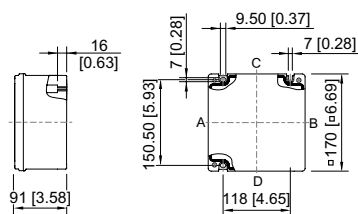
Mechanical Data

Degree of protection (IP)	IP66
Degree of protection note	according to IEC/EN 60529
Enclosure material	Polyester resin, Glass fiber reinforced
Silicone-free	No

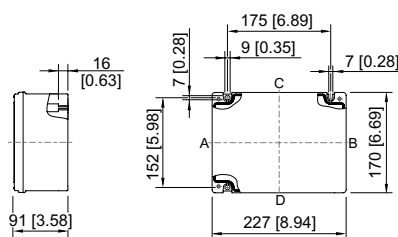
Components

Notes	Please observe the information of the terminal manufacturer, e.g. the tightening torque
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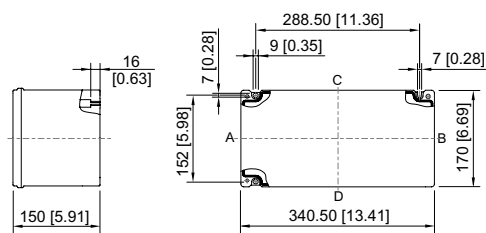
Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



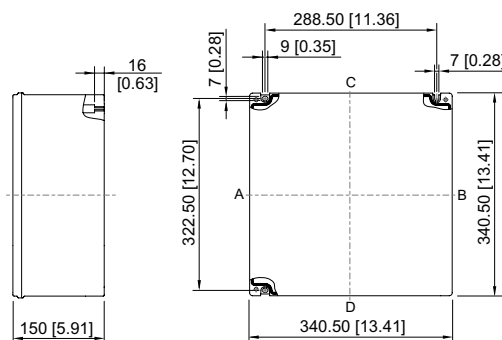
8146/.051



8146/.061



8146/.073



8146/.083

Installation of 8166/11 Conduit Hubs or Cable Glands

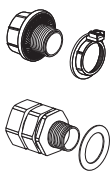
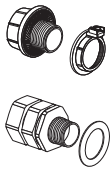
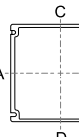
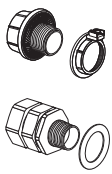
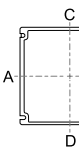
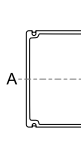
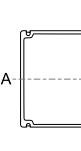
Table for max. numbers of entry openings either installed with conduit hubs 8166/11 or cable glands.

CAUTION:

The max. possible number of entries which can be installed on the sides of the enclosures depends on the number of terminal columns installed.

With horizontally installed columns, there are no side entries possible or only limited, depending on enclosure size.

With vertically installed columns there are no bottom or top entries possible, or only limited, depending on enclosure size. For installation with metallic glands additional reinforcement / grounding measures should be considered. Please consult factory.

Cable gland	Enclosure size															
	8146/.031				8146/.041				8146/.051/.052				8146/.061/.062			
																
	without flange		without flange		without flange		with flange		without flange		with flange		without flange		with flange	
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
1/2"	1	1	1	2	2	3	-	2	3	4	2	2	3	6	2	4
3/4"	1	1	1	2	1	2	-	2	2	3	2	2	2	5	2	4
1"	-	1	1	1	1	2	-	1	2	2	1	1	2	4	1	2
1-1/4"	-	-	1	1	1	1	-	-	1	2	-	-	1	3	-	-
1-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8146/.073/.075				8146/S071				8146/.S73				8146/.081/.082			
																
	without flange		without flange		without flange		with flange		without flange		with flange		without flange		with flange	
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
1/2"	6	12	4	11	2	7	-	4	5	14	-	11	6	7	4	4
3/4"	5	9	4	9	1	6	-	4	3	12	-	9	5	6	4	4
1"	4	8	2	4	1	4	-	2	2	8	-	4	4	4	2	2
1-1/4"	2	5	1	4	1	4	-	-	1	5	-	4	3	4	-	-
1-1/2"	2	4	1	3	-	-	-	-	1	4	-	3	-	-	-	-
2"	1	3	1	2	-	-	-	-	1	3	-	2	-	-	-	-
2-1/2"	1	2	1	2	-	-	-	-	-	3	-	2	-	-	-	-
3"	1	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-
	8146/.083/.085/.086				8146/.091/.092				8146/.093/.095							
																
	without flange		without flange		without flange		with flange		without flange		with flange					
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D				
1/2"	12	14	11	11	7	12	4	8	14	28	11	22				
3/4"	9	12	9	9	6	10	4	8	12	19	9	18				
1"	8	8	4	4	4	8	2	4	8	16	4	8				
1-1/4"	5	5	4	4	4	7	-	-	5	11	4	8				
1-1/2"	4	4	3	3	-	-	-	-	4	7	3	6				
2"	3	3	2	2	-	-	-	-	3	6	2	4				
2-1/2"	2	3	2	2	-	-	-	-	3	4	2	4				
3"	2	2	-	-	-	-	-	-	2	4	-	-				