

# Control Stations made of Polyester Resin

Series 8146



www.stahl.de



07123E00

- > Enclosures made of glass-fibre reinforced polyester resin
- > 8 basic enclosure sizes with various enclosure heights
- > Can be combined to larger units
- > Equipped with built-in devices for snap-on mounting
  - Control devices
  - Indicating lamps
  - Illuminated pushbuttons
  - Control switches
  - Ammeters
  - Voltmeters
- > Options available with:
  - Flanges
  - Cover hinges
  - Flange enclosures
  - Brass plates, Metal cable glands



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Control devices and control units are assembled clearly in 8146 Series control stations in high-quality, glass-fibre reinforced polyester resin.

The product range includes eight enclosure sizes with corresponding enclosure heights respectively. Since there are so many possible combinations of components, every control station Series 8146 is designed and manufactured to order. The number of units installed depends on the size of the control station as well as on the space required for the built-in devices device. Individual control stations can be combined to larger units by means of connection frames.

	ATEX / IECEx						Zone	Class I (NEC 505) (NEC 506)						Division	Class I		Class II		Class III	
	0	1	2	20	21	22		0	1	2	20	21	22		1	2	1	2	1	2
For use	x	x			x	x	For use in		x	x					x	x*	x	x	x	

x\* = Canada

**WebCode 8146F**

# Control Stations made of Polyester Resin

## Series 8146

**Equipment Table** for Control Stations 8146, for Units with Contact Spacing of 42 mm



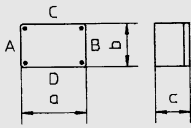
Enclosure	Dimensions [mm]	Equipment configuration maximum options for built-in components with contact spacing of 42 mm such as: control units 8082, indicating lamps 8010 and illuminated pushbuttons 8082/8010	Ordering code	Weight (empty enclosure) [kg]
Enclosure size 3	 a    b    c 112 112 91	Fig. 3.1  A	<b>8146/5031-3.</b>	0.64
Side facing down				
Enclosure size 4	 a    b    c 170 112 91	Fig. 4.1    Fig. 4.2    Fig. 4.3  A    A    A	<b>8146/5041-3.</b>	0.70
Side facing down				
Enclosure size 24	 a    b    c 227 112 91	Fig. 24.1    Fig. 24.2    Fig. 24.3  A    A    A	<b>8146/5241-3.</b>	0.93
Side facing down				
Enclosure size 5	 a    b    c 170 170 91	Fig. 5.1    Fig. 5.2    Fig. 5.3    Fig. 5.4  A    A    D    D	<b>8146/5051-3.</b>	1.10
Side facing down				
Enclosure size 6	 a    b    c 227 170 91	Fig. 6.1    Fig. 6.2    Fig. 6.3    Fig. 6.4  A    A    D    D	<b>8146/5061-3.</b>	1.40
Side facing down				
<b>Order Number Supplement</b>		<b>Specify side facing down:</b>	side A bottom (see above)	<b>8146/ . . . . . A</b>
			side D bottom (see above)	<b>8146/ . . . . . D</b>

# Control Stations made of Polyester Resin

## Series 8146



Enclosure



08242E00

Equipment configuration maximum options for built-in components with contact spacing of 42 mm such as: control units 8082, indicating lamps 8010 and illuminated pushbuttons 8082/8010

Ordering code

Weight (empty enclosure) [kg]

Enclosure size	Dimensions [mm] a    b    c	Fig. 7.1	Fig. 7.2	Ordering code	Weight (empty enclosure) [kg]
Enclosure size 7	340   170   91	<p>08941E00</p>	<p>08942E00</p>	8146/5071-3.	2.00
Side facing down		D	D		
Enclosure size 7	340   170   91	<p>08943E00</p>	<p>08944E00</p>	8146/5071-3.	2.00
Side facing down		A	A		
Enclosure size 8	340   340   91	<p>08948E00</p>	<p>08949E00</p>	8146/5081-3.	3.40
Side facing down		D	D		
Enclosure size 9	680   340   91	<p>08954E00</p>		8146/5091-3.	7.30
Side facing down		D			
Enclosure size 9	680   340   91	<p>08952E00</p>	<p>08953E00</p>	8146/5091-3.	7.30
Side facing down		A	A		
<b>Order Number Supplement</b>		<b>Specify side facing down:</b>		8146/ . . . . . A	
				8146/ . . . . . D	

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# Control Stations made of Polyester Resin

## Series 8146

**Equipment Table** for Control Stations 8146, for Units with Contact Spacing of > 42 mm



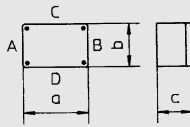
Enclosure		Equipment configuration maximum options with built-in components with contact spacing of > 42 mm such as: control switches 8008, ammeters 8405, control units 8082 with actuators $\varnothing > 38$ mm				Ordering code	Weight (empty enclosure) [kg]
Enclosure size 3	Dimensions [mm]	Fig. 3.2	Fig. 3.3	Fig. 3.4	<b>8146/5031-3.</b>	0.64	
	 a    b    c 112 112 91	 08919E00	 08920E00	 08921E00			
Side facing down		D	D	D			
Enclosure size 4	Dimensions [mm]	Fig. 4.4	Fig. 4.5	Fig. 4.6	<b>8146/5041-3.</b>	0.70	
	 a    b    c 170 112 91	 08925E00	 08926E00	 08927E00			 08928E00
Side facing down		A	A	D	D		
Enclosure size 24	Dimensions [mm]	Fig. 24.4	Fig. 24.5	<b>8146/5241-3.</b>		0.93	
	 a    b    c 227 112 91	 11633E00	 11634E00				
Side facing down		A	A				
Enclosure size 5	Dimensions [mm]	Fig. 5.5	Fig. 5.6	<b>8146/5051-3.</b>		1.10	
	 a    b    c 170 170 91	 08957E00	 08958E00				
Side facing down		D	D				
Enclosure size 6	Dimensions [mm]	Fig. 6.5	Fig. 6.6	<b>8146/5061-3.</b>		1.40	
	 a    b    c 227 170 91	 08959E00	 08940E00				
Side facing down		A	A				
<b>Order Number Supplement</b>		<b>Specify side facing down:</b>			side A bottom (see above)	<b>8146/ . . . . .A</b>	
					side D bottom (see above)	<b>8146/ . . . . .D</b>	

# Control Stations made of Polyester Resin

## Series 8146



Enclosure



08242E00

Equipment configuration maximum options with built-in components with contact spacing of > 42 mm such as:  
control switches 8008, ammeters 8405,  
control units 8082 with actuators  $\varnothing > 38$  mm

Ordering code

Weight (empty enclosure)  
[kg]

Enclosure 7	Dimensions [mm] a    b    c 340 170 91	Fig. 7.5  08945E00	<b>8146/5071-3.</b>	2.00	
Side facing down		D			
Enclosure size 7	Dimensions [mm] a    b    c 340 170 91	Fig. 7.6  08946E00	Fig. 7.7  08947E00	<b>8146/5071-3.</b>	2.00
Side facing down		A	A		
Enclosure size 8	Dimensions [mm] a    b    c 340 340 91	Fig. 8.3  08950E00	Fig. 8.4  08951E00	<b>8146/5081-3.</b>	3.40
Side facing down		D	D		
Enclosure size 9	Dimensions [mm] a    b    c 680 340 91	Fig. 9.4  08955E00		<b>8146/5091-3.</b>	7.30
Side facing down		D			
Enclosure size 9	Dimensions [mm] a    b    c 680 340 91	Fig. 9.5  08956E00		<b>8146/5091-3.</b>	7.30
Side facing down		D			
<b>Order Number Supplement</b>		<b>Specify side facing down:</b>	side A bottom (see above) side D bottom (see above)	<b>8146/ . . . . . A</b> <b>8146/ . . . . . D</b>	

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# Control Stations made of Polyester Resin

## Series 8146

### Explosion Protection

#### Marking

IECEX	
Gas explosion protection	Ex dem ia/ib [ia/ib] IIA, IIB, IIC, T6, T5, T4
Dust explosion protection	Ex tD A21 IP66 T80°C, T95°C, T130°C
Europe (ATEX)	
Gas explosion protection	⊕ II 2 G Ex de ia/ib [ia/ib] mq IIA, IIB, IIC T6, T5, T4
Dust explosion protection	⊕ II 2 D Ex tD A21 IP6X T80°C, T95°C, T130°C

#### Certificates

IECEX	IECEX PTB 06.0090
Europe (ATEX)	PTB 01 ATEX 1024
Further certificates	Brazil (UL do Brasil), China (NEPSI), India (PESO), Canada (CSA), Kazakhstan (JSC), Korea (KGS), Russia (CTB), Ukraine (ISCVE), USA (UL), ship approval (RS)

### Technical Data

#### Electrical data

Rated voltage	max. 1100 V AC / DC
Rated operational current	max. 630 A




#### Ambient conditions

Ambient temperature	- 40 ... + 55 °C ... (depending on Ex components used)
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#### Mechanical data

Degree of protection	IP66 (depending on the cable entries and cable glands used)
Material	
Enclosure	Polyester resin, glass-fibre-reinforced, dark grey, similar to RAL 7024 Impact resistance $\geq 7$ J Surface resistance $\leq 10^9 \Omega$ Flame-resistant according to IEC/EN 60695, UL 94, ASTM D635
Seal	Polyurethane foam
Tightening torque	according to specifications of the terminal manufacturer
Flanges	
Standard	In the standard design, the enclosures are supplied without flanges.
Option	Depending on order, the enclosures can be fitted on one or more sides with flanges; flange material: polyester resin, glass-fibre-reinforced
Cover fixing	
Standard	with captive M6 stainless steel combo head screws
Option	with cover hinges
Terminals	Permissible rated cross-section which can be used - max. 240 mm <sup>2</sup> . The maximum number of terminals for the respective enclosure size is indicated in the EC-type examination certificate.
Connection	Depending on order, directly to the built-in devices or to the terminals

### Accessories and Spare Parts



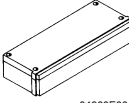
Designation	Illustration	Description	Art. no.	Weight kg		
Flange		Size 1	2.8 mm thick	<b>135978</b>	0.077	
		Size 1	5.8 mm thick	<b>136032</b>	0.106	
		can be mounted on the enclosure		Side		
				8146/.051; /.052	C/D	
				8146/.061; /.062	A/B/C/D	
				8146/.071; /.072	A/B/C/D	
				8146/.S71	C/D	
			8146/.081; /.082	A/B/C/D		
			8146/.091; /.092	A/B/C/D		
		Size 2	2.8 mm thick	<b>136045</b>	0.210	
		Size 2	5.8 mm thick	<b>136083</b>	0.317	
		can be mounted on the enclosure		Side		
				8146/.073; /.075	C/D	
		8146/.S73	C/D			
	Size 3	2.8 mm thick	<b>136199</b>	0.115		
	Size 3	5.8 mm thick	<b>136237</b>	0.166		
	can be mounted on the enclosure		Side			
			8146/.073 /.075	A/B		

# Control Stations made of Polyester Resin

## Series 8146



### Accessories and Spare Parts

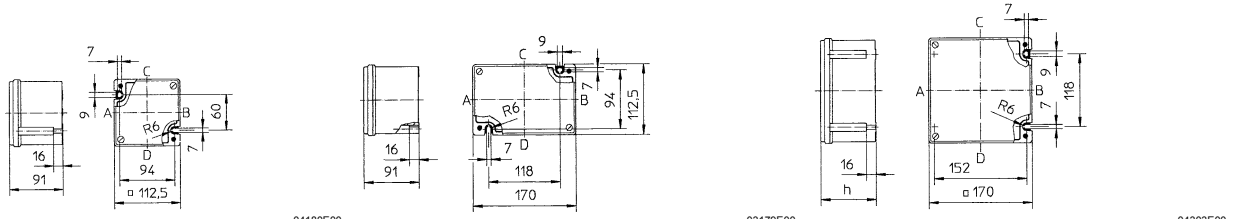
Designation	Illustration	Description	Art. no.	Weight kg
Brass plates 1 mm		for flange size 1 (68 x 128 mm)	<b>136888</b>	0.040
		for flange size 2 (126 x 266 mm)	<b>136960</b>	0.220
		for flange size 3 (126 x 126 mm)	<b>136963</b>	0.120
		8146/.031 C / D	<b>136940</b>	0.040
		8146/.041 A / B		
		8146/.041 C / D	<b>136945</b>	0.060
		8146/.051 /.052 A / B	<b>136914</b>	0.050
		8146/.S71 A / B		
		8146/.061 /.062 C / D	<b>136933</b>	0.080
		8146/.071 /.072 C / D	<b>136927</b>	0.140
		8146/.081 /.082 A / B		
		8146/.091 /.092 C1 / D1		
		8146/.073 A / B	<b>136975</b>	0.140
		8146/.073 C / D	<b>136977</b>	0.270
		8146/.083 A / B		
		8146/.093 C1 / D1		
		8146/.S71 C / D	<b>136950</b>	0.160
		8146/.081 /.082 C / D		
		8146/.091 /.092 A / B		
		8146/.S73 A / B	<b>136973</b>	0.100
8146/.S73 C / D	<b>136979</b>	0.310		
8146/.083 C / D				
8146/.093 A / B				
8146/.091 /.092 C2 / D2	<b>136957</b>	0.160		
8146/.093 C2 / D2	<b>136982</b>	0.310		
for flange enclosure 8146		<b>136954</b>	0.120	
Connection frame		Size 0 68 x 68 mm	<b>136012</b>	0.014
		Size 1 68 x 128 mm	<b>135974</b>	0.020
		Size 2 126 x 266 mm	<b>136031</b>	0.041
		Size 3 126 x 126 mm	<b>136235</b>	0.027
Flange enclosure		can be mounted on the enclosure	Enclosure :	
		8146/.071 C / D		
		8146/.081 A / B / C / I		
		8146/.091 A / B / C / I		

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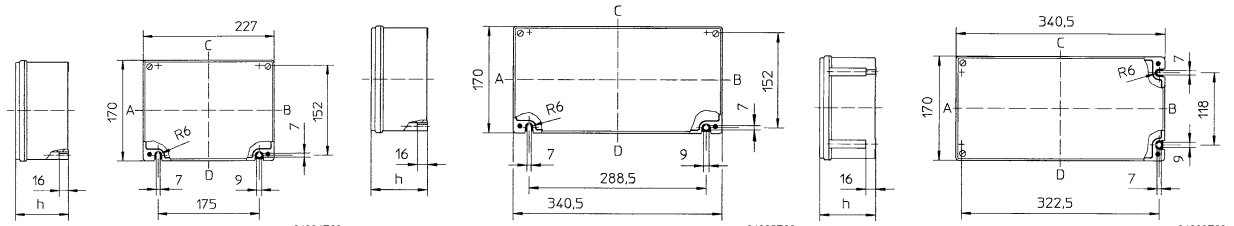
**Dimensional Drawings** (All Dimensions in mm) - Subject to Alterations



**8146/03.**

**8146/04.**

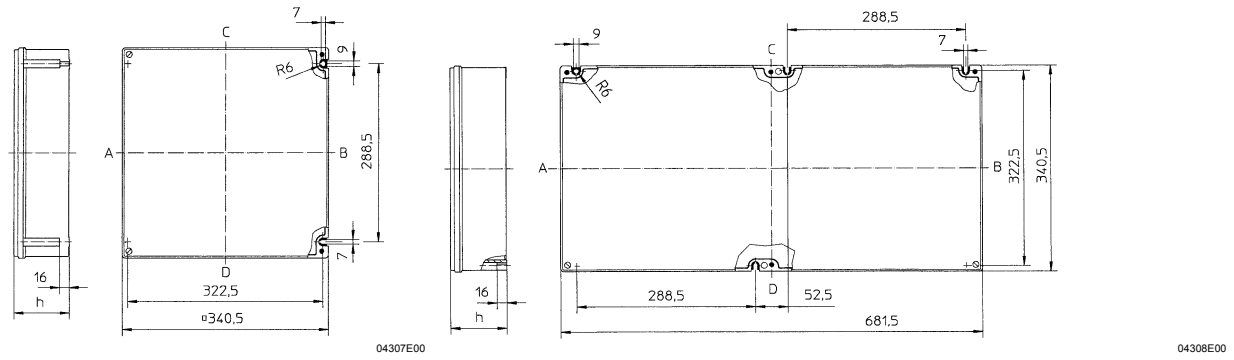
**8146/05.**



**8146/06.**

**8146/07.**

**8146/S7.**



**8146/08.**

**8146/09.**

Flange thickness [mm]	Dimension a [mm]
2.8	7
5.8	10

Additional dimension for flange mounting

Enclosure	Enclosure height h				
	8146/...1 91 mm	8146/...2 131 mm	8146/...3 150 mm	8146/...5 190 mm	8146/...6 230 mm
8146/03.	X	-	-	-	-
8146/04.	X	-	-	-	-
8146/05.	X	X	-	-	-
8146/06.	X	X	-	-	-
8146/07.	X	X	X	X	-
8146/S7.	X	-	X	-	-
8146/08.	X	X	X	X	X
8146/09.	X	X	X	X	-

X ... can be supplied

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.