

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



E4

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 device. Individual control stations can be combined to larger units by means of connection frames.

		ATEX / IECEx							NEC 505			NEC 506					NEC 500						
		0	1	2	20	21	22	Zone		Class I						Division		Class I		Class II		Class III	
Zone		0	1	2	20	21	22	0	1	2	20	21	22	1	2	1	2	1	2	1	2		
For use		x	x			x	x	For use in		x	x					x	x*	x	x	x	x		

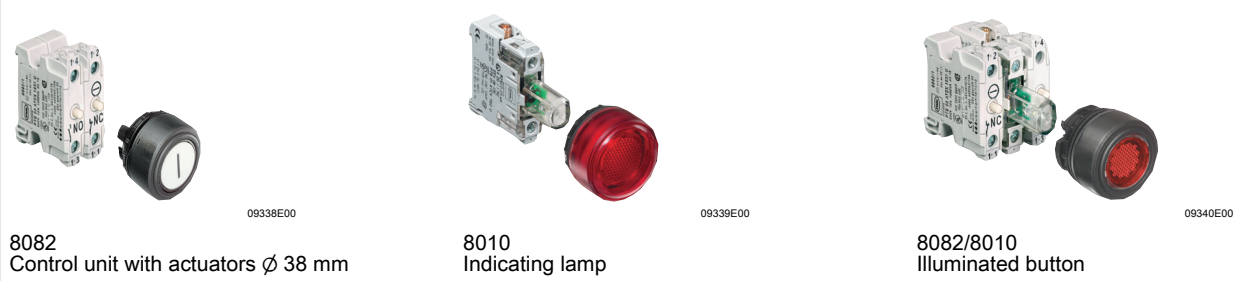
x* = Canada

WebCode 8146F

Control Stations Made of Polyester Resin

Series 8146

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



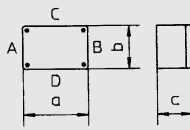
Enclosure	Dimensions [mm]	Equipment configuration maximum options for built-in components with contact spacing of 42 mm such as: control units 8082, indicating lamps 8010 and illuminated pushbuttons 8082/8010	Ordering code	Weight (empty enclosure) [kg]
Enclosure size 3	 Dimensions [mm] a b c 112 112 91	Fig. 3.1 08918E00	8146/5031-3.	0.64
Side facing down		A		
Enclosure size 4	Dimensions [mm] a b c 170 112 91	Fig. 4.1 Fig. 4.2 Fig. 4.3 08922E00 08923E00 08924E00	8146/5041-3.	0.70
Side facing down		A A A		
Enclosure size 24	Dimensions [mm] a b c 227 112 91	Fig. 24.1 Fig. 24.2 Fig. 24.3 11631E00 11632E00 11630E00	8146/5241-3.	0.93
Side facing down		A A A		
Enclosure size 5	Dimensions [mm] a b c 170 170 91	Fig. 5.1 Fig. 5.2 Fig. 5.3 Fig. 5.4 08929E00 08930E00 08931E00 08932E00	8146/5051-3.	1.10
Side facing down		A A D D		
Enclosure size 6	Dimensions [mm] a b c 227 170 91	Fig. 6.1 Fig. 6.2 Fig. 6.3 Fig. 6.4 08935E00 08936E00 08937E00 08938E00	8146/5061-3.	1.40
Side facing down		A A D D		
Order Number Supplement		Specify side facing down:	side A bottom (see above) side D bottom (see above)	8146/...-A 8146/...-D

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 [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		
Order Number Supplement	Specify side facing down:	side A bottom (see above)		8146/....-A	
		side D bottom (see above)		8146/....-D	

E4

Control Stations Made of Polyester Resin

Series 8146

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



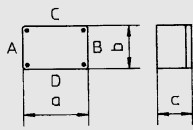
Enclosure		Equipment configuration maximum options with built-in components with contact spacing > 42 mm such as: control switches 8008, ammeters 8405, control units 8082 with actuators $\varnothing > 38$ mm				Ordering code	Weight (empty enclosure) [kg]
Enclosure size 3	Dimensions [mm] a b c 112 112 91	Fig. 3.2 08919E00	Fig. 3.3 08920E00	Fig. 3.4 08921E00	8146/5031-3.	0.64	
Side facing down		D	D	D			
Enclosure size 4	Dimensions [mm] a b c 170 112 91	Fig. 4.4 08925E00	Fig. 4.5 08926E00	Fig. 4.6 08927E00	Fig. 4.7 08928E00	8146/5041-3.	0.70
Side facing down		A	A	D	D		
Enclosure size 24	Dimensions [mm] a b c 227 112 91	Fig. 24.4 11633E00	Fig. 24.5 11634E00			8146/5241-3.	0.93
Side facing down		A	A				
Enclosure size 5	Dimensions [mm] a b c 170 170 91	Fig. 5.5 08957E00	Fig. 5.6 08958E00			8146/5051-3.	1.10
Side facing down		D	D				
Enclosure size 6	Dimensions [mm] a b c 227 170 91	Fig. 6.5 08959E00	Fig. 6.6 08940E00			8146/5061-3.	1.40
Side facing down		A	A				
Order Number Supplement		Specify side facing down:			side A bottom (see above)	8146/....-A	
					side D bottom (see above)	8146/....-D	

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Enclosure



08242E00

Equipment configuration maximum options with built-in components with contact spacing > 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 7	Dimensions [mm] a b c 340 170 91	Fig. 7.5 08945E00	8146/5071-3.	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	8146/5071-3.	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	8146/5081-3.	3.40
Side facing down		D	D		
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.4 08955E00	8146/5091-3.	7.30	
Side facing down		D			
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.5 08956E00	8146/5091-3.	7.30	
Side facing down		D			
Order Number Supplement		Specify side facing down:	side A bottom (see above) side D bottom (see above)	8146/....-A 8146/....-D	

E4

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Explosion Protection

Explosion protection

Global (IECEX)
Gas and dust

IECEX PTB 06.0090
Ex d e ia ib [ia Ga] mb q IIA, IIB, IIC T6, T5, T4 Gb
Ex tb IIIA, IIIB, IIIC T80 °C, T95 °C, T130 °C Db

Europe (ATEX)
Gas and dust

PTB 01 ATEX 1024
⊕ II 2 G Ex d e ia ib [ia Ga] mb q IIA, IIB, IIC T6, T5, T4 Gb
⊕ II 2 D Ex tb IIIA, IIIB, IIIC T80 °C, T95 °C, T130 °C Db IP66

Certifications and certificates

Certificates

IECEX, ATEX, Brazil (INMETRO), China (China-Ex), India (PESO), Canada (CSA), Kazakhstan (GOST K), Korea (KCs), Russia (GOST R), Taiwan (ITRI), Ukraine (TR), 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

-60 °C ... +100 °C (depending on the Ex components used)

Mechanical data

Degree of protection

IP65 acc. to IEC/EN 60529 (others on request)

Material

Enclosure

Polyester resin, glass-fibre-reinforced, dark grey, similar to RAL 7024
Impact resistance ≥ 7 J
Surface resistance $\leq 10^9 \Omega$

Seal

Tightening torque

Flanges

Standard

Option

Flame-resistant according to IEC/EN 60695, UL 94, ASTM D635
Standard: foamed silicone Special: PU, foamed (-20 ... +80 °C)
according to specifications of the terminal manufacturer

In the standard design, the enclosures are supplied without flanges.

Depending on order, the enclosures can be fitted on one or more sides with flanges;
flange material: polyester resin, glass-fibre-reinforced

Cover lock

Standard

Option

Terminals



Connection

with captive M6 stainless steel combo head screws
with cover hinges

Permissible rated cross-section which can be used - max. 240 mm². The maximum number of terminals for the respective enclosure size is indicated in the EC-type examination certificate.

Depending on order, directly to the built-in devices or to the terminals

Accessories and Spare Parts




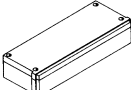
Designation	Figure	Description	Art. no.	Weight kg		
Flange		Size 1	2.8 mm thick	135978	0.077	
		Size 1	5.8 mm thick	136032	0.106	
		can be mounted on the enclosure		Side		
			8146/.051; /.052	C/D		
			8146/.061; /.062	A/B/C/D		
			8146/.071; /.072	A/B/C/D		
			8146/.S71	C/D		
		Size 2	2.8 mm thick	136045	0.210	
		Size 2	5.8 mm thick	136083	0.317	
		can be mounted on the enclosure		Side		
			8146/.073; /.075	C/D		
			8146/.S73	C/D		
			8146/.083; /.085	A/B/C/D		
			8146/.086			
	8146/.093; /.095	A/B/C/D				

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Series 8146



Accessories and Spare Parts

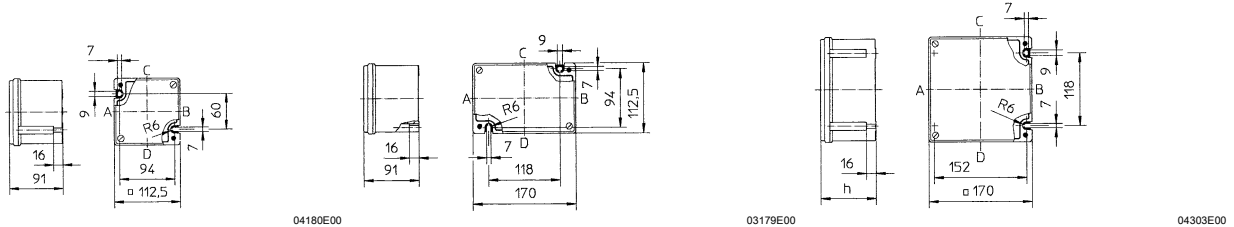
Designation	Figure	Description	Art. no.	Weight kg		
Flange	 05743E00	Size 3 2.8 mm thick	136199	0.115		
		Size 3 5.8 mm thick	136237	0.166		
		can be mounted on the enclosure Side 8146/.073 /.075 A/B				
Brass plates 1 mm	 04902E00	for flange size 1 (68 x 128 mm)	136888	0.040		
		for flange size 2 (126 x 266 mm)	136960	0.220		
		for flange size 3 (126 x 126 mm)	136963	0.120		
		8146/.031 C / D 8146/.041 A / B	136940	0.040		
		8146/.041 C / D	136945	0.060		
		8146/.051 /.052 A / B 8146/.S71 A / B	136914	0.050		
		8146/.061 /.062 C / D	136933	0.080		
		8146/.071 /.072 C / D 8146/.081 /.082 A / B 8146/.091 /.092 C1 / D1	136927	0.140		
		8146/.073 A / B	136975	0.140		
		8146/.073 C / D 8146/.083 A / B 8146/.093 C1 / D1	136977	0.270		
		8146/.S71 C / D 8146/.081 /.082 C / D 8146/.091 /.092 A / B	136950	0.160		
		8146/.S73 A / B	136973	0.100		
		8146/.S73 C / D 8146/.083 C / D 8146/.093 A / B	136979	0.310		
		8146/.091 /.092 C2 / D2	136957	0.160		
		8146/.093 C2 / D2	136982	0.310		
		for flange enclosure 8146	136954	0.120		
		Connection frame	 04901E00	Size 0 68 x 68 mm	136012	0.014
				Size 1 68 x 128 mm	135974	0.020
				Size 2 126 x 266 mm	136031	0.041
				Size 3 126 x 126 mm	136235	0.027
Flange enclosure	 04900E00	can be mounted on the enclosure Enclosure side 8146/.071 C / D 8146/.081 A / B / C / D 8146/.091 A / B / C / D				

E4

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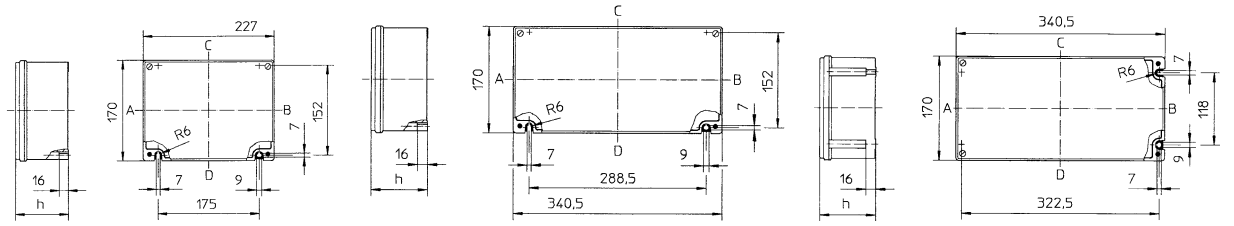
Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



8146/03.

8146/04.

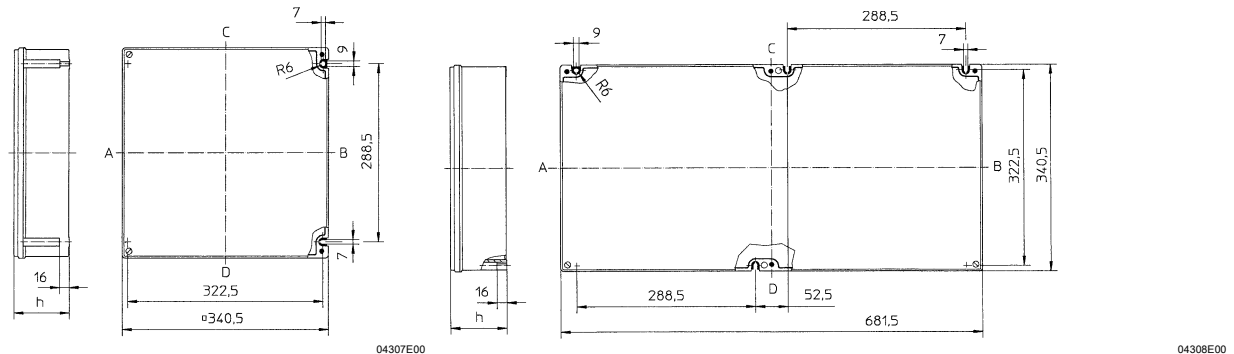
8146/05.



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.

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E4