

Control Stations Made of Polyester Resin

Series 8146

STAHL



- > 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



07123E00

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



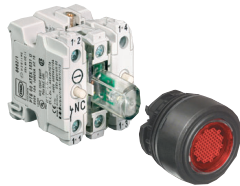
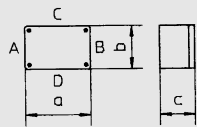
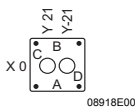
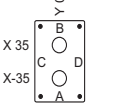
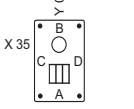
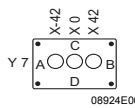
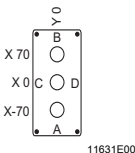
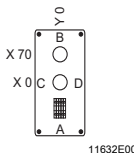
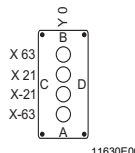
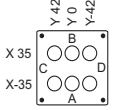
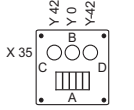
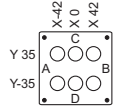
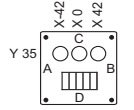
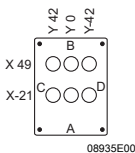
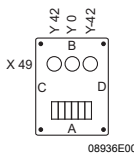
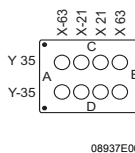
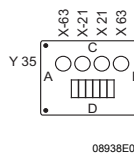
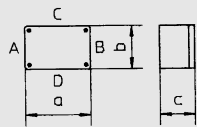
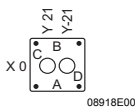
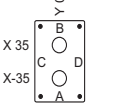
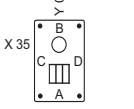
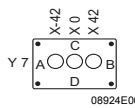
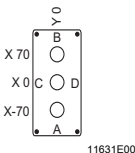
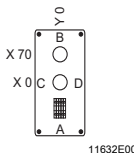
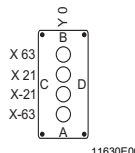
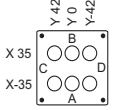
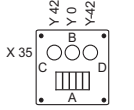
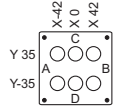
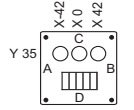
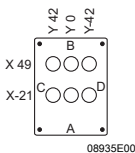
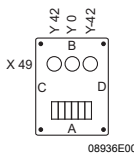
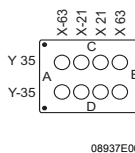
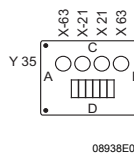
x* = Canada

WebCode 8146F

Control Stations Made of Polyester Resin

Series 8146

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

<div><div><div>09338E00</div></div><div><div>09339E00</div></div><div><div>09340E00</div></div></div> <div><div>8082</div><div>Control unit with actuators \varnothing 38 mm</div></div> <div><div>8010</div><div>Indicating lamp</div></div> <div><div>8082/8010</div><div>Illuminated button</div></div>					Enclosure	 <div>08242E00</div>	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  <div>08918E00</div> <div>A</div>	8146/5031-3.	0.64	Side facing down					Enclosure size 4	Dimensions [mm] a b c 170 112 91	Fig. 4.1  <div>08922E00</div> <div>A</div> <div>Fig. 4.2 <div>08923E00</div><div>A</div><div>Fig. 4.3 <div>08924E00</div><div>A</div></div></div>	8146/5041-3.	0.70	Side facing down					Enclosure size 24	Dimensions [mm] a b c 227 112 91	Fig. 24.1  <div>11631E00</div> <div>A</div> <div>Fig. 24.2 <div>11632E00</div><div>A</div><div>Fig. 24.3 <div>11630E00</div><div>A</div></div></div>	8146/5241-3.	0.93	Side facing down					Enclosure size 5	Dimensions [mm] a b c 170 170 91	Fig. 5.1  <div>08929E00</div> <div>A</div> <div>Fig. 5.2 <div>08930E00</div><div>A</div><div>Fig. 5.3 <div>08931E00</div><div>D</div><div>Fig. 5.4 <div>08932E00</div><div>D</div></div></div></div>	8146/5051-3.	1.10	Side facing down					Enclosure size 6	Dimensions [mm] a b c 227 170 91	Fig. 6.1  <div>08935E00</div> <div>A</div> <div>Fig. 6.2 <div>08936E00</div><div>A</div><div>Fig. 6.3 <div>08937E00</div><div>D</div><div>Fig. 6.4 <div>08938E00</div><div>D</div></div></div></div>	8146/5061-3.	1.40	Side facing down					Order Number Supplement	Specify side facing down:	side A bottom (see above) side D bottom (see above)	8146/....-A 8146/....-D	
Enclosure	 <div>08242E00</div>	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]																																																												
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Side facing down																																																																
Enclosure size 4	Dimensions [mm] a b c 170 112 91	Fig. 4.1  <div>08922E00</div> <div>A</div> <div>Fig. 4.2 <div>08923E00</div><div>A</div><div>Fig. 4.3 <div>08924E00</div><div>A</div></div></div>	8146/5041-3.	0.70																																																												
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Enclosure size 24	Dimensions [mm] a b c 227 112 91	Fig. 24.1  <div>11631E00</div> <div>A</div> <div>Fig. 24.2 <div>11632E00</div><div>A</div><div>Fig. 24.3 <div>11630E00</div><div>A</div></div></div>	8146/5241-3.	0.93																																																												
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Side facing down																																																																
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











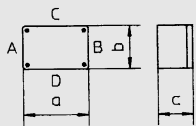
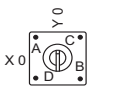
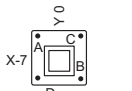
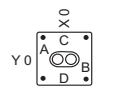
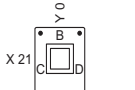
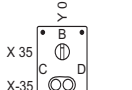
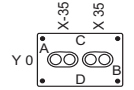
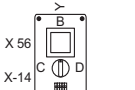
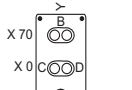
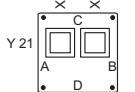
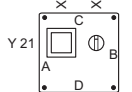
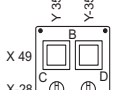
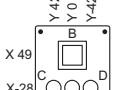
Enclosure		Equipment configuration maximum options for built-in components with contact spacing of 42 mm such as: control units 8082, indicating lamps 8010 and illuminated pushbuttons 8082/8010		Ordering code	Weight (empty enclosure) [kg]
Enclosure size 7	Dimensions [mm] a b c 340 170 91	Fig. 7.1 	Fig. 7.2 	8146/5071-3.	2.00
Side facing down					
Enclosure size 7	Dimensions [mm] a b c 340 170 91	Fig. 7.3 	Fig. 7.4 	8146/5071-3.	2.00
Side facing down					
Enclosure size 8	Dimensions [mm] a b c 340 340 91	Fig. 8.1 	Fig. 8.2 	8146/5081-3.	3.40
Side facing down					
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.1 	Fig. 9.2 	8146/5091-3.	7.30
Side facing down					
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.2 	Fig. 9.3 	8146/5091-3.	7.30
Side facing down					
Order Number Supplement		Specify side facing down:		side A bottom (see above) side D bottom (see above)	8146/....-A 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

<div><div></div><div><div>09336E00</div><div>09337E00</div><div>09342E00</div><div>09341E00</div><div>01842E00</div></div><div><div>8082 Control unit with actuators $\varnothing > 38$ mm</div><div>8008 Control switch</div><div>8405 Ammeter</div></div></div>							
Enclosure		 <div>08242E00</div>	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  <div>08919E00</div>	Fig. 3.3  <div>08920E00</div>	Fig. 3.4  <div>08921E00</div>	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  <div>08925E00</div>	Fig. 4.5  <div>08926E00</div>	Fig. 4.6  <div>08927E00</div>	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  <div>11633E00</div>	Fig. 24.5  <div>11634E00</div>		8146/5241-3.	0.93	
Side facing down		A	A				
Enclosure size 5	Dimensions [mm] a b c 170 170 91	Fig. 5.5  <div>08957E00</div>	Fig. 5.6  <div>08958E00</div>		8146/5051-3.	1.10	
Side facing down		D	D				
Enclosure size 6	Dimensions [mm] a b c 227 170 91	Fig. 6.5  <div>08959E00</div>	Fig. 6.6  <div>08940E00</div>		8146/5061-3.	1.40	
Side facing down		A	A				
Order Number Supplement		Specify side facing down:			8146/....-A		
					8146/....-D		

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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 7	Dimensions [mm] a b c 340 170 91	Fig. 7.5 		8146/5071-3.	2.00
Side facing down		D			
Enclosure size 7	Dimensions [mm] a b c 340 170 91	Fig. 7.6 	Fig. 7.7 	8146/5071-3.	2.00
Side facing down		A			
Enclosure size 8	Dimensions [mm] a b c 340 340 91	Fig. 8.3 	Fig. 8.4 	8146/5081-3.	3.40
Side facing down		D			
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.4 		8146/5091-3.	7.30
Side facing down		D			
Enclosure size 9	Dimensions [mm] a b c 680 340 91	Fig. 9.5 		8146/5091-3.	7.30
Side facing down		D			
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

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

Ex II 2 G Ex d e ia ib [ia Ga] mb q IIA, IIB, IIC T6, T5, T4 Gb

Ex 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 $\leq 10^9 \Omega$

Flame-resistant according to IEC/EN 60695, UL 94, ASTM D635

Standard: foamed silicone Special: EPDM (-40 ... +80 °C)

Seal

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 lock

Standard

with captive M6 stainless steel combo head screws

Option

with cover hinges


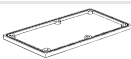
Terminals

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.

Connection

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

Accessories and Spare Parts




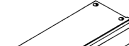
Designation	Figure	Description	Art. no.	Weight kg
Flange	 05742E00	Size 1 2.8 mm thick	135978	0.077
		Size 1 5.8 mm thick	136032	0.106
		can be mounted on the enclosure Side		
		8146/.051; /.052 C/D		
		8146/.061; /.062 A/B/C/D		
		8146/.071; /.072 A/B/C/D		
		8146/.S71 C/D		
		8146/.081; /.082 A/B/C/D		
		8146/.091; /.092 A/B/C/D		
	 05741E00	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 A/B/C/D		
		8146/.093; /.095 A/B/C/D		

Control Stations Made of Polyester Resin

Series 8146



Accessories and Spare Parts

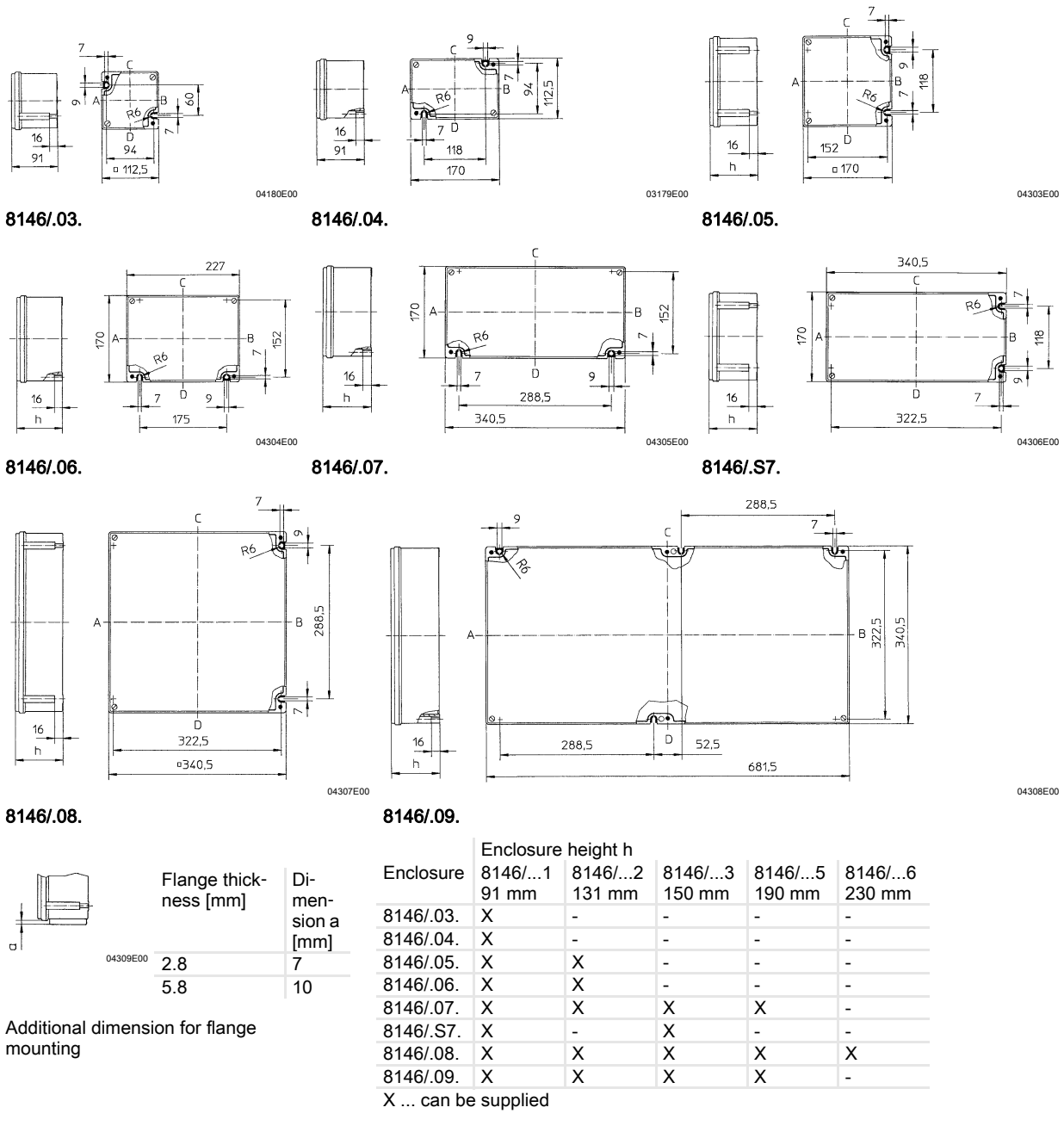
Designation	Figure	Description	Art. no.	Weight kg
Flange	 05743E00	Size 3 2.8 mm thick	136199	0.115
		Size 3 5.8 mm thick	136237	0.166
		can be mounted on the enclosure Side 8146/.073 /.075 A/B		
Brass plates 1 mm	 04902E00	for flange size 1 (68 x 128 mm)	136888	0.040
		for flange size 2 (126 x 266 mm)	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

Control Stations Made of Polyester Resin

Series 8146

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



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.