

01668E00

## Terminal Boxes Series 8146

- Explosion protection to
  - CENELEC
  - IEC
  - NEC
- For use in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- Can be fitted with terminals up to max. 300 mm<sup>2</sup>
- Enclosure of polyester resin
- 8 basic enclosure sizes with various heights
- Degree of protection IP 66

STAHL

Series 8146 terminal boxes are supplied with Phoenix Thermoplastic terminals as standard. Terminals from other manufacturers can be fitted.

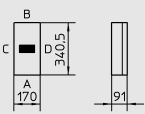
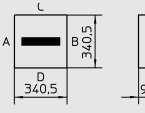
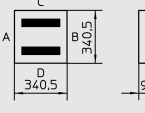
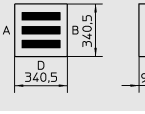
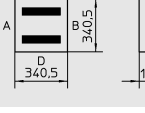
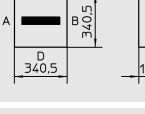
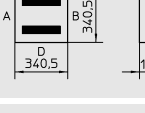
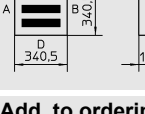
The terminal boxes are fitted to order with terminals and cable entries.

Flanges can be fitted as required on several sides of the enclosure. Size 7, 8 and 9 enclosures can be equipped with flange casings which facilitate optimal fitting of cable entries to the relevant sides of the enclosure.

# Zones 1 & 2, 21 & 22



Selection table		for terminal boxes with terminals up to max. 35 mm <sup>2</sup> max. no. of line-up terminals which can be fitted												Ordering code	Weight [kg]  with / without Flange
		Nominal cross-section [mm <sup>2</sup> ]													
Arrangements	Diagram	2.5		4		6		10		16		35			
		UK 3 N	WDU 2,5	MXK 4	UK 5 N	WDU 4	UK 6 N	WDU 6	UK 10 N	WDU 10	UK 16 N	WDU 16	UK 35		
	08830E00	14	--	12	12	--	--	--	--	--	--	--	--	<b>8146 / .041</b>	0.81
	08829E00	19	19	16	16	16	11	12	9	9	8	--	--	<b>8146 / .051</b>	0.85/0.95
	08828E00	--	--	28	--	--	--	--	--	--	--	--	--	<b>8146 / .051</b>	1.05/1.15
	08827E00	27	28	23	23	24	17	17	13	14	11	--	--	<b>8146 / .061</b>	1.06/1.26
	08826E00	--	--	46	--	--	--	--	--	--	--	--	--	<b>8146 / .061</b>	1.10/1.30
	08825E00	--	--	46	--	--	--	--	--	--	--	--	--	<b>8146 / .062</b>	1.50/1.70
	08824E00	49	51	--	41	42	31	31	24	25	20	--	--	<b>8146 / .S71</b>	1.04/1.70
	08823E00	--	--	82	--	--	--	--	--	--	--	--	--	<b>8146 / .S71</b>	1.80/2.20
	08822E00	--	--	82	--	--	--	--	--	--	--	--	--	<b>8146 / .072</b>	1.90/2.20
	08821E00	49	51	41	41	42	31	31	24	25	20	20	--	<b>8146 / .S73</b>	1.40/1.70
<b>Add. to ordering code:</b>															
	Version:	EEx e										<b>8146 / 1 . . .</b>			
		EEx i										<b>8146 / 2 . . .</b>			
<b>State with order:</b>	Terminal strips:	Number and type													
	Cable glands:	Number, type and side for fitting in enclosure													
	Flange:	Flanges can be fitted to order; please indicate the side on which they are to be fitted.													
<b>Note:</b>															
The ordering codes contain the enclosure with carrier rails and PE or PA rail.															
Terminal boxes fitted with terminals > 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> on request.															

Selection table		for terminal boxes with terminals up to max. 35 mm <sup>2</sup> max. no. of line-up terminals which can be fitted											Ordering code	Weight [kg]	
Arrangements	Nominal cross-section [mm <sup>2</sup> ]														
	2.5		4		6		10		16		35				
	UK 3 N	WDU 2,5	MXK 4	UK 5 N	WDU 4	UK 6 N	WDU 6	UK 10 N	WDU 10	UK 16 N	WDU 16	UK 35	WDU 35		
 08820E00	19	19	--	16	16	11	12	9	9	8	--	--	--	8146/ .071	1.6/1.90
 08819E00	51	53	--	43	44	32	33	26	26	21	--	--	--	8146/ .081	2.00/2.40
 08818E00	98	102	82	82	84	62	62	48	50	40	--	--	--	8146/ .081	2.40/2.80
 08817E00	147	153	123	123	--	--	--	--	--	--	--	--	--	8146/ .081	2.80/3.20
 08816E00	98	102	82	82	84	62	62	48	50	40	--	--	--	8146/ .082	3.10/3.50
 08815E00	51	53	43	43	44	32	33	26	26	21	22	17	16	8146/ .083	2.60/3.00
 08814E00	98	102	82	82	84	62	62	48	50	40	--	--	--	8146/ .083	3.00/3.40
 08813E00	147	153	123	123	--	--	--	--	--	--	--	--	--	8146/ .083	3.40/3.80
<b>Add. to ordering code:</b>											8146/1. . .				
Version:											EEx e				
											EEx i				
<b>State with order:</b>											8146/2. . .				
Terminal strips:											Number and type				
Cable glands:											Number, type and side for fitting in enclosure				
Flange:											Flanges can be fitted to order; please indicate the side on which they are to be fitted.				
<b>Note:</b>											The ordering codes contain the enclosure with carrier rails and PE or PA rail.				
											Terminal boxes fitted with terminals > 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> on request.				

Selection table		for terminal boxes with terminals up to max. 35 mm <sup>2</sup> max. no. of line-up terminals which can be fitted											Ordering code	Weight [kg]  with / without Flange	
Arrangements	Nominal cross-section [mm <sup>2</sup> ]														
	2.5		4		6		10		16		35				
	UK 3 N	WDU 2,5	MXK 4	UK 5 N	WDU 4	UK 6 N	WDU 6	UK 10 N	WDU 10	UK 16 N	WDU 16	UK 35	WDU 35		
	102	106	86	86	88	64	66	52	52	42	--	--	--	8146 / . 091	4.00/4.80
	196	204	164	164	168	124	124	96	100	80	--	--	--	8146 / . 091	4.80/5.60
	294	306	246	246	--	--	--	--	--	--	--	--	--	8146 / . 091	5.20/6.00
	196	204	164	164	168	124	124	96	100	80	--	--	--	8146 / . 092	6.00/6.80
	102	106	86	86	88	64	66	52	52	42	44	34	32	8146 / . 093	4.60/5.40
	196	204	164	164	168	124	124	96	100	80	--	--	--	8146 / . 093	5.40/6.20
	294	306	246	246	--	--	--	--	--	--	--	--	--	8146 / . 093	5.80/8.60
<b>Add. to ordering code:</b>															
Version:		EEx e										8146 / 1 . . .			
State with order:		EEx i										8146 / 2 . . .			
Terminal strips:		Number and type													
Cable glands:		Number, type and side for fitting in enclosure													
Flange:		Flanges can be fitted to order; please indicate the side on which they are to be fitted.													
<b>Note:</b>		The ordering codes contain the enclosure with carrier rails and PE or PA rail. Terminal boxes fitted with terminals > 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> on request.													



### Technical Data











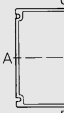

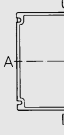
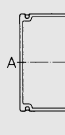
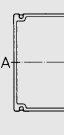

Explosion protection	
Gas explosion protection	II 2 G EEx edm ia/ib [ia] IIC T6, T5 or T4
Dust explosion protection	EEx e: II 2 D IP 66 T80 °C, T95 °C, T130 °C EEx i: II 2 D IP 66 T80 °C
Certificates	
Gas explosion protection	PTB 01 ATEX 1016
Dust explosion protection	LCIE 02 ATEX 6242
Other certificates	SIMTARS (Australia), CSA (Canada), VNIIEF (Russia), FM (USA), UL (USA), NEPSI (China)
Material	
Housing	Polyester resin, glass fibre-reinforced, dark grey, similar to RAL 7024, impact strength $\geq 7$ Nm, surface resistance $\leq 10^9$ Ohm, material flame resistant, self-extinguishing
Gaskets	Polyurethane foam
Flanges	
Standard	the enclosures are supplied without flanges in the standard version
Special	the enclosures can be fitted on one or more sides with flanges; flange material: Polyester resin, glass fibre-reinforced
Cover fixing	
Standard	M 6, cheese-head screws with combined slot, captive, stainless steel
Special	with cover hinges
Rated working voltage	max. 1100 V (depending on terminals fitted)
Degree of protection	IP 66
Ambient temperature	EEx e: - 20 °C ... + 40 °C (T6) - 20 °C ... + 55 °C (T5) EEx i: - 20 °C ... + 75 °C (T6)
Terminals	Max. nominal cross-section 300 mm <sup>2</sup>



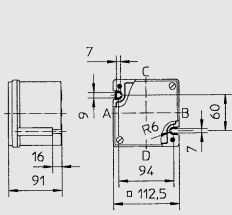
### Cable entries Table of maximum number of possible enclosure entries with cable glands Series 8161.

**Caution:**

The maximum number of cable entries which can be mounted in the enclosure walls depends on the position of the components installed.

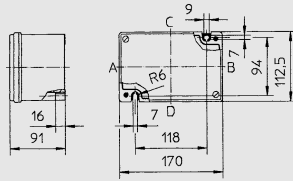
Cable gland	Size																			
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	without Flange		with Flange		without Flange		with Flange		without Flange		with Flange		without Flange		with Flange		without Flange		with Flange	
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M 16 x 1.5	3	6	5	8	6	8	--	7	8	10	7	7	8	18	7	14				
M 20 x 1.5	2	2	3	5	4	6	--	3	6	7	3	3	6	14	3	6				
M 25 x 1.5	1	2	2	4	3	5	--	3	5	6	3	3	5	11	3	6				
M 32 x 1.5	1	1	1	2	2	3	--	2	3	3	2	2	3	6	2	4				
M 40 x 1.5	--	1	1	1	1	2	--	2	2	2	2	2	2	4	2	4				
M 50 x 1.5	--	1	1	1	1	1	--	--	1	2	--	--	1	3	--	--				
 05864E00	8146/.073/.075				8146/.S71				8146/.S73				8146/.081/.082							
																				
	without Flange		with Flange		without Flange		with 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	A/B	C/D	A/B	C/D
M 16 x 1.5	20	45	12	32	6	20	--	14	13	50	--	32	18	20	14	14				
M 20 x 1.5	13	28	9	19	4	16	--	6	9	32	--	19	14	16	6	6				
M 25 x 1.5	10	22	6	14	3	13	--	6	8	26	--	14	11	13	6	6				
M 32 x 1.5	6	12	4	10	2	7	--	4	4	15	--	10	6	7	4	4				
M 40 x 1.5	4	8	2	5	1	5	--	4	2	10	--	5	4	5	4	4				
M 50 x 1.5	2	6	1	3	1	4	--	--	1	7	--	3	3	4	--	--				
M 63 x 1.5	1	3	1	2	--	--	--	--	1	4	--	2	--	--	--	--				
 05864E00	8146/.083/.085/.086				8146/.091/.092				8146/.093/.095				flange enclosure for							
																				
	without Flange		with Flange		without Flange		with Flange		without Flange		with Flange		8146/..7. CD 8146/.08. A/B/C/D 8146/.09. A/B 8146/.09. C/D (2x)							
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								
M 16 x 1.5	45	50	32	32	20	38	14	28	50	91	32	64	21							
M 20 x 1.5	28	32	19	19	16	20	6	12	32	60	19	38	16							
M 25 x 1.5	22	26	14	14	13	23	6	12	26	46	14	28	13							
M 32 x 1.5	12	15	10	10	7	12	4	8	15	26	10	20	7							
M 40 x 1.5	8	10	5	5	5	9	4	8	10	18	5	10	5							
M 50 x 1.5	6	7	3	3	4	7	--	--	7	13	3	6	4							
M 63 x 1.5	3	4	2	2	--	--	--	--	4	6	2	4	--							

### Dimension drawings (all dimensions in mm) - subject to alterations

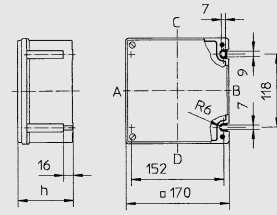


04180E00

**8146/03.**

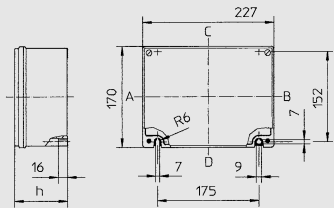


**8146/04.**



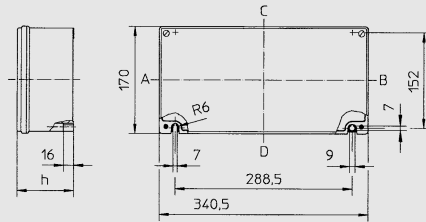
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**8146/05.**



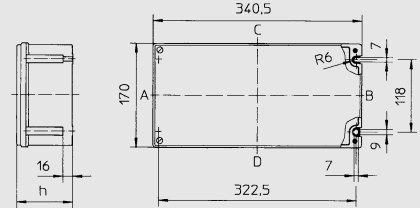
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**8146/06.**



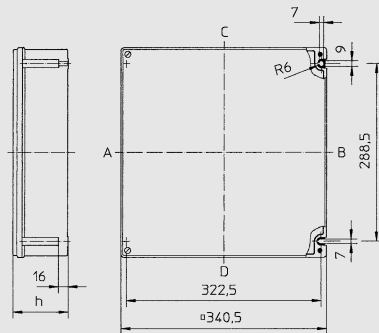
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**8146/07.**



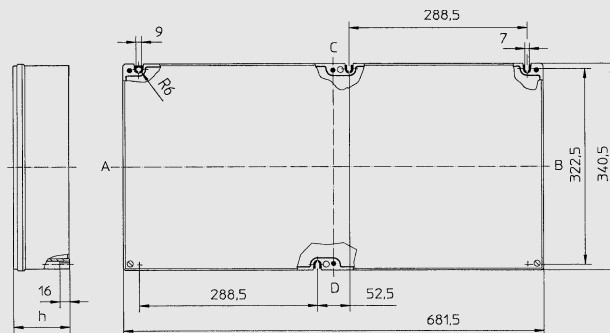
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**8146/S7.**



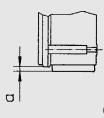
04307E00

**8146/08.**



04308E00

**8146/09.**




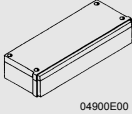
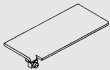
04309E00

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

Additional dimensions for flange mounting

Enclosure	Height of enclosure 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

Accessories and spare parts				
Designation	Illustration	Description	Ordering code	Weight kg
Flange		size 1, 2 and 3      Version      2,8 mm thick 5,8 mm thick	<b>on request</b>	
Flange casing		with lid      2 mm thick	<b>8146035040</b>	0,661
		with lid      5 mm thick	<b>8146036040</b>	0,850
		can be mounted on enclosure enclosure side		
		8146/.071      C / D 8146/.081      A / B / C / D 8146/.091      A / B / C / D		
Brass plate		For earthing metal gland parts when used in enclosures and flanges in moulded plastic; various sizes and versions.	<b>on request</b>	

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

