

# Control Stations Made of Polyester Resin

Series 8146

E4



07123E00

**WebCode 8146F**

- > 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



| ATEX / IECEx / GOST |   |   |   |    |    | NEC 505 |            |   |   |   |    | NEC 506 |    |            |   |   |    | NEC 500 |   |          |   |           |  |
|---------------------|---|---|---|----|----|---------|------------|---|---|---|----|---------|----|------------|---|---|----|---------|---|----------|---|-----------|--|
|                     |   |   |   |    |    | Class I |            |   |   |   |    |         |    |            |   |   |    | 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

| Technical Data   |   |
|--|---|
| Explosion protection<br>Global (IECEx)<br>Gas and dust | IECEx PTB 06.0090<br>Ex dem ia/ib [ja/ib] IIA, IIB, IIC, T6, T5, T4<br>Ex tD A21 IP66 T80°C, T95°C, T130°C  |
| Europe (ATEX)<br>Gas and dust                          | PTB 01 ATEX 1024<br>Ⓢ II 2 G Ex de ia/ib [ja/ib] mq IIA, IIB, IIC T6, T5, T4<br>Ⓢ II 2 D Ex tD A21 IP6X T80°C, T95°C, T130°C  |
| Certificates and approvals<br>Certificates             | IECEx, ATEX, Brazil (UL do Brasil), China (NEPSI), India (PESO), Canada (CSA), Kazakhstan (GOST-K), Korea (KGS), Russia (GOST-R), Taiwan (ITRI), Ukraine (GOST-U), USA (UL)                                 |
| Other approvals  | ship approval (RS)  |
| Material<br>Enclosure                                  | Polyester resin, glass-fibre-reinforced, dark grey, similar to RAL 7024<br>Impact resistance ≥ 7 J<br>Surface resistance ≤ 10 <sup>9</sup> Ω<br>Flame-resistant according to IEC/EN 60695, UL 94, ASTM D635 |
| Seal   | Polyurethane foam   |
| Rated voltage  | max. 1100 V AC / DC   |
| Degree of protection                                   | IP66 (depending on the cable entries and cable glands used)   |

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



| Enclosure  | Equipment configuration  | Ordering code   | Weight (empty enclosure) [kg]                                   |
|--|--|---|---|
| <p>Enclosure size 3</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>112 112 91</p> <p>Side facing down</p>  | <p>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</p> <p>Fig. 3.1</p> <p>A</p> | <b>8146/5031-3.</b>   | 0.64  |
| <p>Enclosure size 4</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>170 112 91</p> <p>Side facing down</p>  | <p>Fig. 4.1</p> <p>A</p> <p>Fig. 4.2</p> <p>A</p> <p>Fig. 4.3</p> <p>A</p>   | <b>8146/5041-3.</b>   | 0.70  |
| <p>Enclosure size 24</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>227 112 91</p> <p>Side facing down</p> | <p>Fig. 24.1</p> <p>A</p> <p>Fig. 24.2</p> <p>A</p> <p>Fig. 24.3</p> <p>A</p>  | <b>8146/5241-3.</b>   | 0.93  |
| <p>Enclosure size 5</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>170 170 91</p> <p>Side facing down</p>  | <p>Fig. 5.1</p> <p>A</p> <p>Fig. 5.2</p> <p>A</p> <p>Fig. 5.3</p> <p>D</p> <p>Fig. 5.4</p> <p>D</p>  | <b>8146/5051-3.</b>   | 1.10  |
| <p>Enclosure size 6</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>227 170 91</p> <p>Side facing down</p>  | <p>Fig. 6.1</p> <p>A</p> <p>Fig. 6.2</p> <p>A</p> <p>Fig. 6.3</p> <p>D</p> <p>Fig. 6.4</p> <p>D</p>  | <b>8146/5061-3.</b>   | 1.40  |
| <p><b>Order Number Supplement</b> Specify side facing down:</p>  |  | <p>side A bottom (see above)</p> <p>side D bottom (see above)</p> | <p><b>8146/ . . . . - A</b></p> <p><b>8146/ . . . . - D</b></p> |

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

**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 $\phi > 38$ mm | Ordering code  | Weight (empty enclosure) [kg]                      |
|--|---|--|--|
| <p>08242E00</p>  |   |  |  |
| <b>Enclosure size 3</b><br>Dimensions [mm]<br>a    b    c<br>112 112 91  | Fig. 3.2      Fig. 3.3      Fig. 3.4<br><br>08919E00      08920E00      08921E00  | <b>8146/5031-3.</b>                                    | 0.64   |
| Side facing down   | D      D      D   |  |  |
| <b>Enclosure size 4</b><br>Dimensions [mm]<br>a    b    c<br>170 112 91  | Fig. 4.4      Fig. 4.5      Fig. 4.6      Fig. 4.7<br><br>08925E00      08926E00      08927E00      08928E00  | <b>8146/5041-3.</b>                                    | 0.70   |
| Side facing down   | A      A      D      D  |  |  |
| <b>Enclosure size 24</b><br>Dimensions [mm]<br>a    b    c<br>227 112 91 | Fig. 24.4      Fig. 24.5<br><br>11633E00      11634E00  | <b>8146/5241-3.</b>                                    | 0.93   |
| Side facing down   | A      A  |  |  |
| <b>Enclosure size 5</b><br>Dimensions [mm]<br>a    b    c<br>170 170 91  | Fig. 5.5      Fig. 5.6<br><br>08957E00      08958E00  | <b>8146/5051-3.</b>                                    | 1.10   |
| Side facing down   | D      D  |  |  |
| <b>Enclosure size 6</b><br>Dimensions [mm]<br>a    b    c<br>227 170 91  | Fig. 6.5      Fig. 6.6<br><br>08959E00      08940E00  | <b>8146/5061-3.</b>                                    | 1.40   |
| Side facing down   | A      A  |  |  |
| <b>Order Number Supplement</b>   | <b>Specify side facing down:</b>  | side A bottom (see above)<br>side D bottom (see above) | <b>8146/ . . . . .A</b><br><b>8146/ . . . . .D</b> |

| Enclosure   | Equipment configuration   | Ordering code  | Weight (empty enclosure) [kg]                        |      |
|---|---|--|--|------|
| <p>08242E00</p>   | <p>maximum options with built-in components with contact spacing &gt; 42 mm such as:<br/>control switches 8008, ammeters 8405, control units 8082 with actuators <math>\phi &gt; 38</math> mm</p> |  |  |      |
| <p>Enclosure 7</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>340 170 91</p>      | <p>Fig. 7.5</p> <p>08945E00</p>   | <b>8146/5071-3.</b>                                    | 2.00   |      |
| Side facing down  | D   |  |  |      |
| <p>Enclosure size 7</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>340 170 91</p> | <p>Fig. 7.6</p> <p>08946E00</p>   | <p>Fig. 7.7</p> <p>08947E00</p>                        | <b>8146/5071-3.</b>                                  | 2.00 |
| Side facing down  | A   | A  |  |      |
| <p>Enclosure size 8</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>340 340 91</p> | <p>Fig. 8.3</p> <p>08950E00</p>   | <p>Fig. 8.4</p> <p>08951E00</p>                        | <b>8146/5081-3.</b>                                  | 3.40 |
| Side facing down  | D   | D  |  |      |
| <p>Enclosure size 9</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>680 340 91</p> | <p>Fig. 9.4</p> <p>08955E00</p>   | <b>8146/5091-3.</b>                                    | 7.30   |      |
| Side facing down  | D   |  |  |      |
| <p>Enclosure size 9</p> <p>Dimensions [mm]</p> <p>a    b    c</p> <p>680 340 91</p> | <p>Fig. 9.5</p> <p>08956E00</p>   | <b>8146/5091-3.</b>                                    | 7.30   |      |
| Side facing down  | D   |  |  |      |
| Order Number Supplement   | Specify side facing down:   | side A bottom (see above)<br>side D bottom (see above) | <b>8146/ . . . . . A</b><br><b>8146/ . . . . . D</b> |      |

Table for max. number of entries possible with cable glands 8161 see 8146 terminal boxes

Dimensional drawings see terminal boxes Series 8146