



BDF200-FB-NHK-SWS20-WS30-LTWH-G24

- integrated FB interface for connection to the Safety-Field-Box SFB
- Pos 1: E-STOP with protective collar
- Pos 2: Key selector switch, 2 positions
- Pos 3: Selector switch, 3 positions
- Pos 4: WHITE illuminated pushbutton
- Indicator lamp G24 on top
- slender shock-proof thermoplastic enclosure
- to be installed at an ergonomic favourable position
- to be fitted to commercial-off-the-shelf aluminium profiles
- E-STOP with electronic OSSDs

Data

Ordering data

| | |
|-------------------------------|-----------------------------------|
| Product type description | BDF200-FB-NHK-SWS20-WS30-LTWH-G24 |
| Article number (order number) | 103015449 |
| EAN (European Article Number) | 4030661509662 |
| eCl@ss number, version 12.0 | 27-37-12-16 |
| eCl@ss number, version 11.0 | 27-37-12-16 |
| eCl@ss number, version 9.0 | 27-37-12-16 |
| ETIM number, version 7.0 | EC000225 |
| ETIM number, version 6.0 | EC000225 |
| Note (Ordering data) | Notice: see ordering code |

Approvals - Standards

Certificates

TÜV
cULus

General data

| | |
|----------------------------|--|
| Standards | EN ISO 13849-1 EN ISO 13850 EN IEC 60947-5-1 EN IEC 60947-5-5 EN IEC 61508 |
| Climatic stress | DIN EN 60068 |
| Housing material | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Reaction time, maximum | 50 ms |
| Duration of risk, maximum | 100 ms |
| Positions used, position 1 | Emergency stop, with protective collar |
| Positions used, position 2 | Key selector switch 2 positions |
| Positions used, position 3 | Selector switch 3 positions |
| Positions used, position 4 | Illuminated pushbutton, white |
| Gross weight | 280 g |

General data - Features

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| Serial diagnostics | No |
| Field box interface | 1 |
| Indicator lamp | Yes |
| Safety functions | Yes |
| Number of fail-safe digital outputs | 2 |

Safety classification

| | |
|--|--|
| Standards | EN ISO 13849-1 EN IEC 61508 |
| Performance Level, up to | e |
| Category | 4 |
| PFH value | 2.89×10^{-10} /h |
| Note (PFH-value) | up to max. 5,000 switching cycles/year |
| Safety Integrity Level (SIL), suitable for applications in | 3 |
| Mission time | 20 Year(s) |

Mechanical data

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|--|-------------------------|
| Mechanical life, Emergency-Stop button | 100,000 Operations |
| Mechanical life, Command devices | 1,000,000 Operations |
| Mounting | interior mounting holes |
| Type of the fixing screws | 2x M5 |

Mechanical data - Connection technique

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|-----------------------|-------------------------------------|
| Terminal (mechanical) | Connector plug M12, 8-pole, A-coded |
|-----------------------|-------------------------------------|

Mechanical data - Dimensions

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|-------------------------|---|
| Width | 40 mm |
| Height | 69 mm |
| Depth | 220 mm |
| Length x Width x Height | Depth: 233.5 - 252.5 mm (without and with indicator lamp) |

Ambient conditions

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|--|--|
| Degree of protection | IP65 |
| Ambient temperature | -25 ... +65 °C |
| Storage and transport temperature | -25 ... +85 °C |
| Resistance to vibrations | 10 ... 150 Hz, amplitude 0.35 mm / 5 g |
| Resistance to shock | 30 g / 11 ms |
| Protection class | III |
| Permissible installation altitude above sea level, maximum | 2,000 m |

Ambient conditions - Insulation values

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|---|--------|
| Rated insulation voltage U_i | 32 VDC |
| Rated impulse withstand voltage U_{imp} | 0.8 kV |

| | |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution | 3 |

Electrical data

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| Operating voltage | 24 VDC -15 % / +10 % (stabilised PELV power supply) |
| No-load supply current I_0 , typical | 35 mA |
| Rated operating voltage | 24 VDC |
| Operating current | 600 mA |
| Required rated short-circuit current | 100 A |
| Time to readiness, maximum | 2,000 ms |
| Switching frequency, maximum | 1 Hz |

Electrical data - Safety digital inputs

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|-----------------------------------|--|
| Designation, Safety inputs | X1 and X2 |
| Switching thresholds | -3 V ... 5 V (Low) 15 V ... 30 V (High) |
| Current consumption at 24 V | 5 mA |
| Test pulse duration, maximum | 1 ms |
| Test pulse interval, minimum | 100 ms |
| Classification ZVEI CB24I, Sink | C1 |
| Classification ZVEI CB24I, Source | C1 C2 C3 |

Electrical data - Safety digital outputs

| | |
|-------------------------------------|-----------------------------|
| Designation, Safety outputs | Y1 and Y2 |
| Design of control elements | short-circuit proof, p-type |
| Voltage drop U_d , maximum | 1 V |
| Leakage current I_r , maximum | 0.5 mA |
| Voltage, Utilisation category DC-12 | 24 VDC |
| Current, Utilisation category DC-12 | 0.25 A |
| Voltage, Utilisation category DC-13 | 24 VDC |

| | |
|-------------------------------------|---------|
| Current, Utilisation category DC-13 | 0.25 A |
| Test pulse interval, typical | 1000 ms |
| Test pulse duration, maximum | 1 ms |
| Classification ZVEI CB24I, Source | C1 |
| Classification ZVEI CB24I, Sink | C1 |

Electrical data - Serial diagnostic SD

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|-----------------------------------|-----------------------------|
| Designation, Serial diagnostic SD | OUT |
| Operation current | 10 mA |
| Design of control elements | short-circuit proof, p-type |
| Wiring capacitance | 50 nF |

Pin assignment

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|-------|------------------------------|
| PIN 1 | A1 Supply voltage UB |
| PIN 2 | X1 Safety input 1 |
| PIN 3 | A2 GND |
| PIN 4 | Y1 Safety output 1 |
| PIN 5 | OUT serial diagnostic output |
| PIN 6 | X2 Safety input 2 |
| PIN 7 | Y2 Safety output 2 |
| PIN 8 | n.c. |

Pictures

Product picture (catalogue individual photo)



ID: kbdf2f03
 | 1.5 MB | .jpg | 352.778 x 802.217 mm - 1000 x 2274 px - 72 dpi
 | 26.1 kB | .png | 22.013 x 50.038 mm - 260 x 591 px - 300 dpi
 | 125.1 kB | .png | 74.083 x 168.275 mm - 210 x 477 px - 72 dpi
 | 49.5 kB | .jpg | 54.328 x 123.472 mm - 154 x 350 px - 72 dpi

