

## BDF200-FB-NHK-SWS20-LT-LT-2875



- **E-STOP with electronic OSSDs**
- **Pos 1: E-STOP with protective collar**
- **Pos 2: Key selector switch, 2 positions**
- **slender shock-proof thermoplastic enclosure**
- **to be installed at an ergonomic favourable position**
- **Pos 3: illuminated pushbutton 2875 with changeable colors**
- **Pos 4: illuminated pushbutton 2875 with changeable colors**
- **to be fitted to commercial-off-the-shelf aluminium profiles**
- **integrated FB interface for connection to the Safety-Field-Box SFB**

### Data

#### Ordering data

Product type description	BDF200-FB-NHK-SWS20-LT-LT-2875
Article number (order number)	103038559
EAN (European Article Number)	4030661545639
eCl@ss number, Version 9.0	27-33-02-04
eCl@ss number, Version 11.0	27-33-02-04
ETIM number, version 6.0	EC001415

#### Approval - Standards

Certificates	cULus EAC
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#### General data

Product name	BDF 200-FB
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Standards	IEC 60947-5-1 ISO 13849-1 IEC 61508 IEC 60947-5-5 ISO 13850
Climatic stress	IEC 60947-5-5
Terminal (mechanical)	Connector plug M12, 8-pole, A-coded
Enclosure material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Gross weight	280 g
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 switch, 2 switching positions
Positions used, position 3	Illuminated pushbutton; color exchangeable
Positions used, position 4	Illuminated pushbutton, color exchangeable

### General data - Features

Serial diagnostics	No
Field box interface	
Indicator lamp	No
Safety functions	Yes

### Safety appraisal

Standards	ISO 13849-1 IEC 61508
Performance level, up to	e
Control category to EN13849	4
PFH-value	$2.89 \times 10^{-10}$ /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

Mechanical life, Emergency-Stop button	100,000 Operations
Mechanical life, Command devices	1,000,000 Operations

### Mechanical data - Dimensions

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

## Ambient conditions

Degree of protection	IP64
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+65 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Resistance to vibrations to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm / 5 g
Resistance to shock	30 g / 11 ms
Protection rating	III

## Ambient conditions - Insulation value

Rated impulse withstand voltage $U_{imp}$	0.8 kV
Overvoltage category	III
Degree of pollution to VDE 0100	3

## Electrical data

Current consumption at 24V	5 mA
no-load supply current	35 mA
Rated operating voltage	24 VDC -15 % / +10 % (PELV to IEC 60204-1)
Operating current	150 mA 600 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Utilisation category DC-12	24 VDC
Utilisation category DC-12	0.25 A
Utilisation category DC-13	24 VDC
Utilisation category DC-13	0.25 A
Inputs, Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)

## Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs)	250 mA
Voltage drop $U_d$ , maximum	1 V
Current leakage $I_r$	0.5 mA

## Electrical data - Diagnostic output

Versions	short-circuit proof, p-type
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## Pictures

## Product picture (catalogue individual photo)



ID: kbdf2f03

| 1,5 MB | .jpg | 352.778 x 802.217 mm - 1000 x 2274

Pixel - 72 dpi

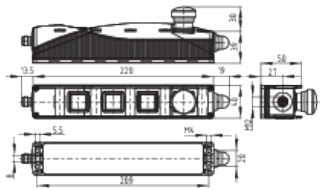
| 125,1 kB | .png | 74.083 x 168.275 mm - 210 x 477

Pixel - 72 dpi

| 26,1 kB | .png | 22.013 x 50.038 mm - 260 x 591

Pixel - 300 dpi

## Dimensional drawing basic component



ID: 1bdf2g03

| 358,0 kB | .cdr |

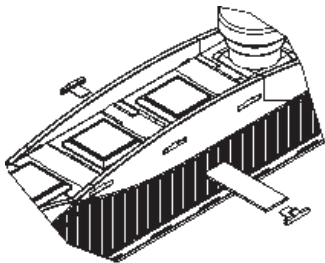
| 164,7 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695

Pixel - 72 dpi

| 14,8 kB | .png | 74.083 x 51.506 mm - 210 x 146

Pixel - 72 dpi

## Operating principle



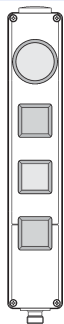
ID: kbdf-a08

| 5,0 kB | .png | 74.083 x 59.267 mm - 210 x 168 Pixel  
- 72 dpi

| 284,5 kB | .jpg | 352.778 x 281.517 mm - 1000 x 798

Pixel - 72 dpi

## Clipart



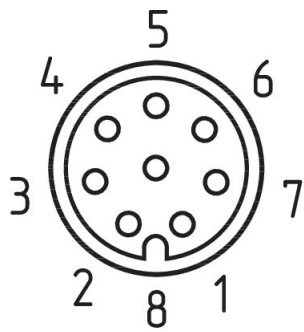
ID: kbdf-c03

| 64,1 kB | .cdr |

| 7,7 kB | .png | 74.083 x 404.989 mm - 210 x 1148

Pixel - 72 dpi

## Contact arrangement



ID: km23-k8a

| 18,0 kB | .cdr |

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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