



## BDF200-SD-NHK-LT-LT-LT-2875

- Pos 1: E-STOP with protective collar
- Pos 2: illuminated pushbutton 2875 with changeable colors
- Pos 3: illuminated pushbutton 2875 with changeable colors
- Pos 4: illuminated pushbutton 2875 with changeable colors
- integrated SD interface for use in SD interface systems
- 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-SD-NHK-LT-LT-LT-2875
Article number (order number)	103025848
EAN (European Article Number)	4030661514598
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	Illuminated pushbutton, color exchangeable
Positions used, position 3	Illuminated pushbutton; color exchangeable
Positions used, position 4	Illuminated pushbutton, color exchangeable
Gross weight	280 g

## General data - Features

Serial diagnostics	Yes
Field box interface	0
Indicator lamp	No
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	$2.89 \times 10^{-10}$ /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
Mounting	interior mounting holes
Type of the fixing screws	2x M5

## Mechanical data - Connection technique

Terminal (mechanical)	Connector plug M12, 8-pole, A-coded
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## Mechanical data - Dimensions

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

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

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

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

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

Designation, Serial diagnostic SD	OUT
Operation current	100 mA
Design of control elements	short-circuit proof, p-type
Wiring capacitance	50 nF

## Pin assignment

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	IN serial diagnostic input

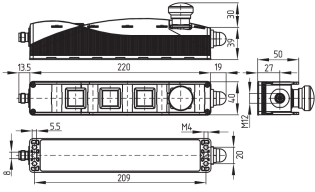
## Pictures

### 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

## Dimensional drawing basic component



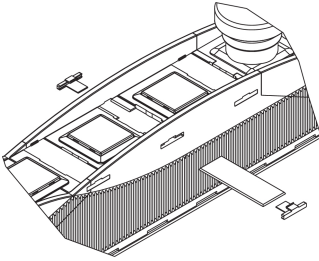
ID: 1bdf2g03

| 358.0 kB | .cdr |

| 14.8 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi

| 164.7 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695 px - 72 dpi

## Operating principle

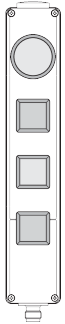


ID: kbdf-a08

| 284.5 kB | .jpg | 352.778 x 281.517 mm - 1000 x 798 px - 72 dpi

| 5.0 kB | .png | 74.083 x 59.267 mm - 210 x 168 px - 72 dpi

## Clipart

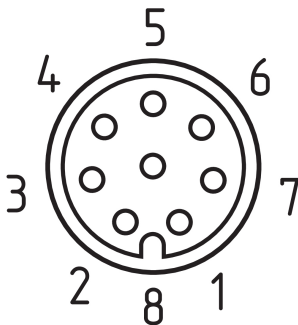


ID: kbdf-c03

| 64.1 kB | .cdr |

| 7.7 kB | .png | 74.083 x 404.989 mm - 210 x 1148 px - 72 dpi

## Contact arrangement



ID: km23-k8a

| 18.0 kB | .cdr |

| 5.5 kB | .png | 73.731 x 79.728 mm - 209 x 226 px - 72 dpi

| 155.6 kB | .jpg | 352.778 x 380.647 mm - 1000 x 1079 px - 72 dpi

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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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