Datasheet - BDF 200 AS

AS interface safety at work / Safety switchgear / Control panels and Emergency-Stop button / BDF 200 AS
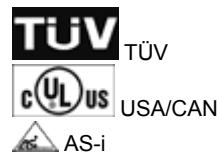
SCHMERSAL

• Thermoplastic enclosure
• slender shock-proof enclosure
• to be fitted to commercial-off-the-shelf aluminium profiles
• to be installed at an ergonomic favourable position
• large range of Illuminated pushbuttons, Selector switches, LED indicator lights, Key-operated selector switches and Emergency-Stop buttons
• Integrated AS-Interface Safety Slave for emergency stop and A/B Slave for command and signalling devices
• Emergency stop, on/off and reset functions available
• Two-layer plastic identification labels can be used (engravements on request)
• AS-Interface M12 connector Optional bottom or above
• Suitable for AS-i Power24

(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	BDF200AS
Article number	BDF200AS
notice	**see ordering code**
eCl@ss	

Approval

Approval	TÜV TÜV
	c(UL)us USA/CAN
	AS-i

Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up e
Control category	up 4
PFH value	1.4×10^{-8} /h
- notice	up to max. 5.000 switching cycles/year
SIL	up 3
Mission time	20 Years

Global Properties

Permanent light	BDF200AS
Standards	EN 60947-5-1, EN ISO 13850, EN ISO 13849-1, IEC 61508, EN 50295
Climatic stress	to DIN EN 60068
Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Positions used	
- Position 1	Command device (see ordering code)
- Position 2	Command and signalling devices (see ordering code)
- Position 3	Command and signalling devices (see ordering code)
- Position 4	Command and signalling devices (see ordering code)
Response time	< 100

Mechanical data

Cable entry	1x M12
Mechanical life	
- Emergency-Stop button	100.000 operations
- Command devices	1.000.000 operations
restistance to shock	15 g / 11 ms
Resistance to vibration	10 … 150 HZ, Amplitude 0,35 mm / 5 g

Ambient conditions

Ambient temperature	
- Min. environmental temperature	−25
- Max. environmental temperature	+65
Storage and transport temperature	
- Min. Storage and transport temperature	−25
- Max. Storage and transport temperature	+85
Protection class	IP65
Protection rating	II, Double-insulated ▢
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U_{imp}	800 V
- Rated insulation voltage U_i	32 VDC
- Overvoltage category	III
- Degree of pollution	3

Electrical data - AS interface

AS-i Supply voltage	18 … 31.6 VDC, Protection against polarity reversal
- Min. supply voltage	18
- Max. supply voltage	31.6
AS-i operating current	≤ 150
- AS electronics	
- Total	
AS-i Device insulation	internally short-circuit proof
AS-i Specification	**Safety Slave**
- version	V 3.0
- Profile	S-7.B.F.F
AS-i Inputs	
- Channel 1	Data bits DI 0/DI 1= dynamic code transmission
- Channel 2	Data bits DI 2/DI 3= dynamic code transmission
AS-i Outputs	

- DO 0	Indicator lamp G24 red
- DO 1	Indicator lamp G24 green
- DO 2	not used
- DO 3	not used
AS-i Parameter bits	P0 … P3 not used
AS-i Specification	**A/B slave**
- version	V 3.0
- Profile	S-7.A.7.F
AS-i Inputs	
- DI 0	Command device Position 4
- DI 1	Command device Position 3
- DI 2	Command device Position 2
- DI 3	Command device Position 2
AS-i Outputs	
- DO 0	Illuminated signal Position 4
- DO 1	Illuminated signal Position 3
- DO 2	Illuminated signal Position 2
- DO 3	not used
AS-i Parameter bits	P0 … P3 not used
PO	not used
P1	not used
P2	not used
P3	not used
AS-i input module address	0
- Default on address 0, programmable via the AS-Interface Master or Hand-held programming device	
notice	Both AS-i slaves can be enabled and disabled through the integrated DIP switch. The addressing must take place via the M12 connector.

LED switching conditions display

LED switching conditions display (Y/N)	No

Dimensions

Dimensions	
- Width	40 mm
- Height	69 mm
- Depth	233.5 … 252.5 mm (without and with Indicator lamp)

Pin assignment

1	AS interface +
2	None
3	AS interface −
4	None

Ordering code

BDF 200-**(1)**-AS-**(2)**-**(3)**-**(4)**-**(5)**-**(6)**

(1)	
ST1	connector plug M12, bottom
ST2	connector plug M12, above
(2)	**Position 1** - **Command devices**
NH	Emergency stop latching pushbutton without Protective collar

NHK	Emergency stop latching pushbutton with Protective collar
(3)	**Position 2** - **Command and signalling devices**
WS 2/3	Selector switch, 2/3 switch position
WT 2/3	Selector switch, 2/3 switch position
SW 20	Key switch / - key button, 2 switch position
LT..	Illuminated pushbutton (Selection Color)
LM..	Illuminated signal (Selection Color)
DT..	Push button (Selection Color)
(4)	**Position 3** - **Command and signalling devices**
LT..	Illuminated pushbutton (Selection Color)
LM..	Illuminated signal (Selection Color)
DT..	Push button (Selection Color)
(5)	**Position 4** - **Command and signalling devices**
LT..	Illuminated pushbutton (Selection Color)
LM..	Illuminated signal (Selection Color)
DT..	Push button (Selection Color)
(6)	
without	without Indicator lamp G24
G24	with Indicator lamp G24

Documents

Operating instructions and Declaration of conformity (nl) 822 kB, 29.11.2018
Code: mrl_bdf200as_nl

Operating instructions and Declaration of conformity (fr) 831 kB, 29.11.2018
Code: mrl_bdf200as_fr

Operating instructions and Declaration of conformity (it) 813 kB, 26.06.2017
Code: mrl_bdf200as_it

Operating instructions and Declaration of conformity (en) 824 kB, 05.11.2018
Code: mrl_bdf200as_en

Operating instructions and Declaration of conformity (de) 792 kB, 05.11.2018
Code: mrl_bdf200as_de

Operating instructions and Declaration of conformity (jp) 853 kB, 15.09.2014
Code: mrl_bdf200as_jp

Operating instructions and Declaration of conformity (pl) 829 kB, 17.03.2017
Code: mrl_bdf200as_pl

Operating instructions and Declaration of conformity (pt) 828 kB, 05.12.2018
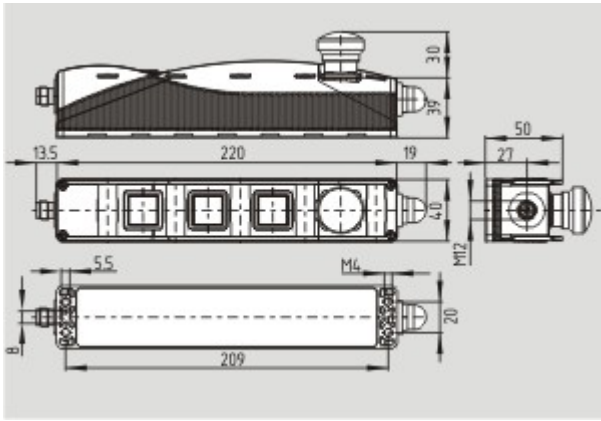Code: mrl_bdf200as_pt

Operating instructions and Declaration of conformity (es) 833 kB, 29.11.2018
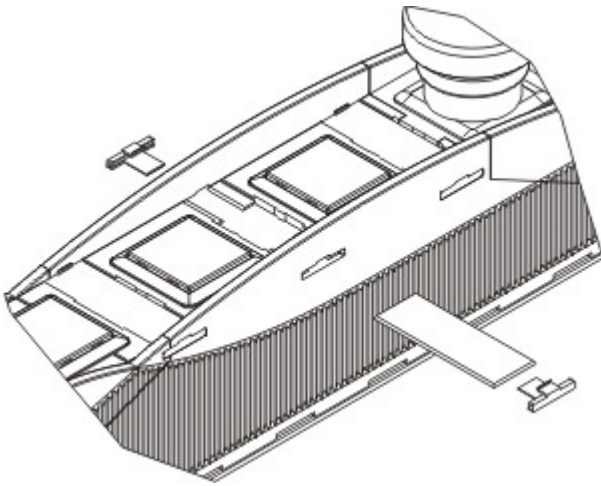Code: mrl_bdf200as_es

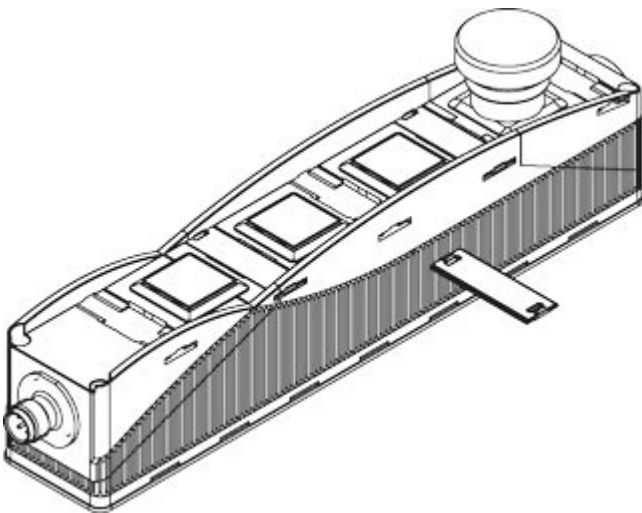**TÜV certification** (de) 401 kB, 20.01.2017
Code: z_bdfp01

Images

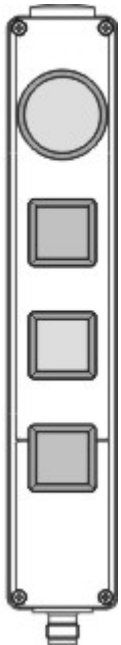Dimensional drawing (basic component)

Application

Application

Clipart

System components

Control elements

NHK

• Emergency stop latching pushbutton
• mushroom-shaped plastic pushbutton, Ø 30 mm
• Pull to reset
• with Protective collar

Illuminated pushbutton / LT

• **Illuminated signal**
• with concave button
• Touch surface 19 x 19
• Lamp replacement at the front
• 5 different colours available

Illuminated signal / LM

• **Illuminated signal**
• with concave illuminated surface
• Illuminated surface 19 x 19
• Lamp replacement at the front
• 5 different colours available
• LED replacement at the front

Push button / DT

• Push button
• with concave button
• Touch surface 19 x 19
• 1 Normally open contact (NO)
• 7 different colours available

Selector switch / Selector switch W0

• Selector switch / Selector switch

• Version with default knob

Key - Selector switch / Selector switch SW20

• Key - Selector switch / Selector switch
• Version with high-grade cylinder lock therefore here also IP65