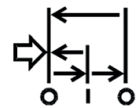
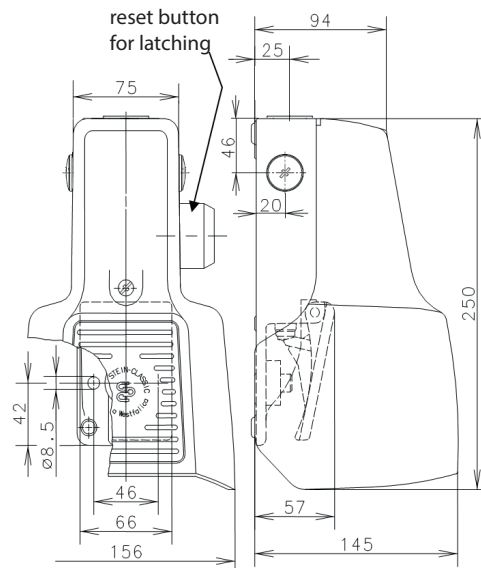


Foot-switch Series F1 UN

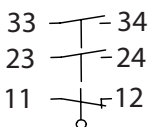
Description **F1-ZSDR UN**

Article number **6161000851**

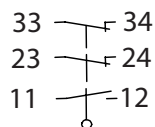


Switching symbol (Three-Step-Safety Switch)

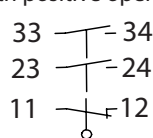
1. position
Off-position



2. position
On-position

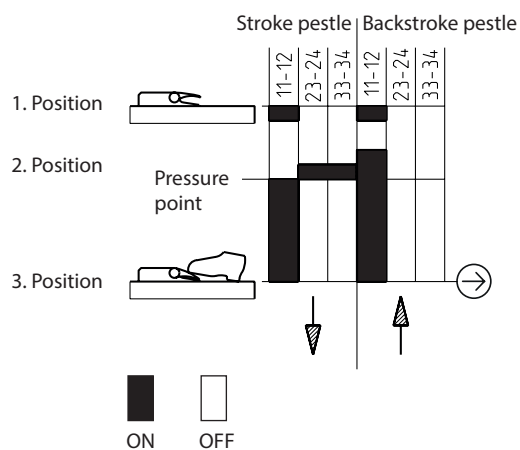


3. position
Off-position
with positive opening



To reach the 3rd position,
the tactile touch has to be
surmounted.

Operating diagramme



Electrical Data		
Rated insulation voltage	U_i	250 V
Conv. thermal current	I_{the}	5 A
Rated impulse withstand voltage	U_{imp}	2,5 KV
Rated operational voltage	U_e	240 V AC and 24 V DC
Utilization category		AC-15, U_e / I_e 240 V AC / 1,5 A 50-60 Hz DC-13, U_e / I_e 24 V DC / 1,0 A
Direct opening action	⊙	acc. to IEC/EN 60947-5-1, annex K
Short-circuit protective device		D-Fuse 4 A gG
Protection class		I

Mechanical data		
Enclosure		AL, die-cast
Protective guard (Accident protection cover UN)		AL, die-cast
Actuator		Foot lever (PA)
Ambient air temperature		Operating temperature range: -10 °C to +50 °C Storage temperature range: -25 °C to +70 °C
Contact type		1 NC, 2 NO. (Zb)
Operating force (pedal centre)	1. position 2. position	10 N 25 N
Pressure point		≈ 460 N
Mechanical life		
Sequence of the switching position: 1 – 2 – 1		10 x 10 ⁶ operating cycles
or: 1 – 2 – 3 – 1		1 x 10 ⁶ operating cycles
Switching frequency		max. 30/min
Assembly		2 x M8
Connection		screw connections (M3,5)
Protection ground		2 x M4
Conductor cross-sections		Solid: 0,5 ... 1,5 mm ² Litz wire with ferrules: 0,5 ... 1,5 mm ²
Cable entrance		3 x M20 x 1,5
Weight		≈ 1,6 kg
Protection type		IP67 in accordance with IEC/EN 60529

ID for safety engineering		
B10d		
Sequence of the switching position: 1 – 2 – 1		10 x 10 ⁶ cycles
or: 1 – 2 – 3 – 1		1 x 10 ⁶ cycles

Regulations	
	VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
	VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
	DIN EN 61326-3-1
	DIN EN ISO 13849-1

EU Conformity	
	acc. to directive 2014/35/EU (Low-Voltage-Directive)

Approvals

cUL_{US}

Function

Normally open contacts: 23 – 24, 33 – 34; Signalling contact: 11 – 12

- Position 1: OFF position of the operating contacts (the pedal is not actuated)
- Position 2: ON position of the operating contacts (the pedal is actuated to as far as the pressure point)
- Position 3: OFF position of the operating contacts (the pedal is fully actuated)

If the three-stage enable switch is actuated in position 2, it returns to position 1 when it is released. The three-stage enable switch changes from position 2 to position 3, if it gets further pressed under after the resistance of the pressure point.

The actuation of the operating contacts is made by a positive opening.

Once the pedal is not pressed, the three-stage enable switch returns to position 1.

The operating contacts are opened in the return stroke.

Notes

The specified protection classification (IP code) applies only when the cover is closed and the appropriate cable is used, in accordance with the clamping range of the above mentioned cable gland.