

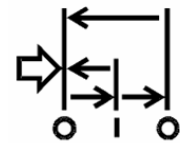
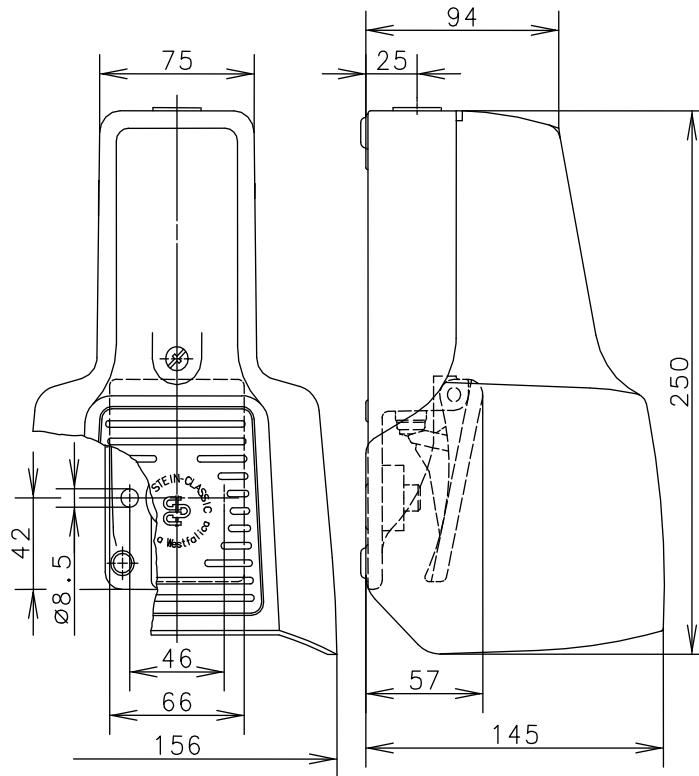
# Technical Data

## Foot-switch

### Series F1 UN

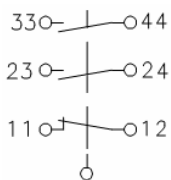
Description **F1-ZSD UN**

Article number **6061000558**

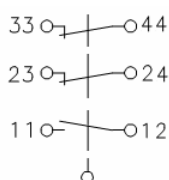


### Switching symbol (Three-Step-Safety Switch)

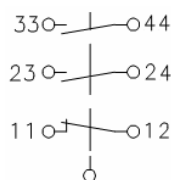
1. position  
Off-position



2. position  
On-position

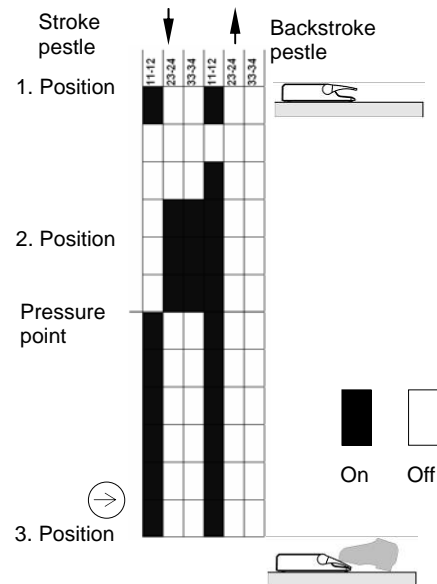


3. position  
Off-position  
with positive opening



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

### Operating diagramme



This document will not become the contractual basis; the details included herein do not constitute any descriptions of expected conditions, so that warranties/claims for defects on account of possible variations of the actual qualities from the qualities described herein are explicitly excluded. All rights reserved. Specifications subject to change without notice!

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	10 N
	2. position	25 N
Pressure point		≈ 200 N
Mechanical life		
Sequence of the switching position:	1 – 2 – 1	10 x 10 <sup>6</sup> operating cycles
or:	1 – 2 – 3 – 1	1 x 10 <sup>6</sup> operating cycles
Switching frequency		max. 30/min
Assembly		2 x M8
Connection		6 screw connections (M3,5) with square clamps
Protection ground		2 x M4
Conductor cross-sections		Solid: 0.5 ... 1.5 mm <sup>2</sup> Litz wire with ferrules: 0.5 ... 1.5 mm <sup>2</sup>
Cable entrance		1 x M20 x 1,5
Weight		Approx. 1,6 kg
Protection type		IP67 in accordance with IEC/EN 60529

### ID for safety engineering

B10d - value	1 x 10 <sup>5</sup>
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### 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
	EN 13849

EU Conformity	acc. to directive 2006/95/EG
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Approvals	cUL <sub>us</sub>
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### Function

Normally open contacts: 23 – 24, 33 – 44; 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.