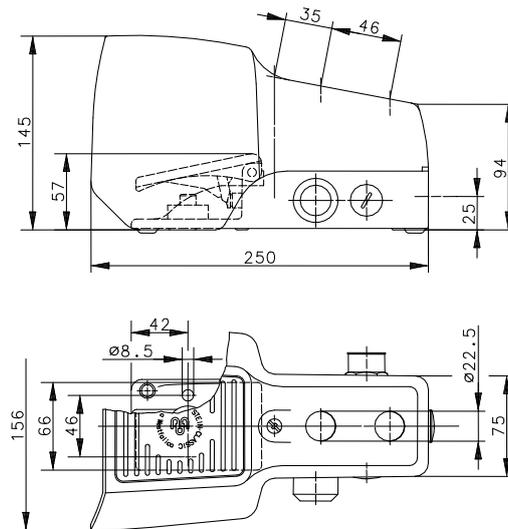


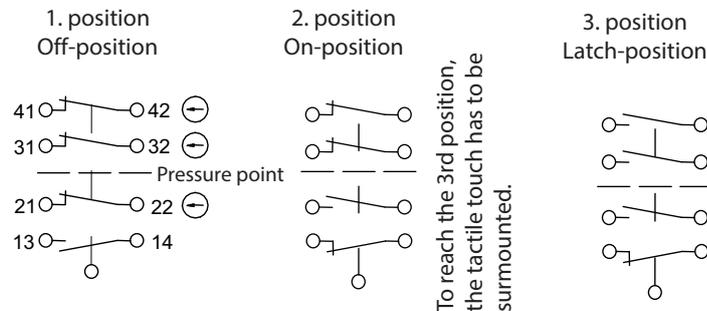
# Foot-switch Series F1

Description **F1-SU1ZHVGA2ZDR UN**

Article number **6161000608**



### Switching symbol (Three-Step-Safety Switch with latch „Off-On-OFF“)



### Electrical Data

Rated insulation voltage	$U_i$	400 V AC
Conv. thermal current	$I_{the}$	10 A
Rated operational voltage	$U_e$	240 V
Utilization category		AC-15, $U_e / I_e$ 240 V / 3 A
Direct opening action	$\rightarrow$	acc. to IEC/EN 60947-5-1, annex K
Short-circuit protective device		Fuse 2 A gG
Protection class		I

Mechanical data	
Enclosure	AL, die-cast
Protective guard (Accident protection cover UN)	AL, die-cast, colour: white
Actuator	Foot lever (PA)
Ambient air temperature	-30 °C to +80 °C
Contact type	3 NC, 1 NO. (Zb)
Contacts (Inserted switch 1)	0,8 µ fine gold-plated (Our guideline values are valid for the gold-plated switch contacts.)
Operating force (pedal centre)	≈ 10 N (pedal centre)
Pressure point	≈ 200 N
Mechanical life	
Sequence of the switching position: Off, On, Off	3 x 10 <sup>6</sup> operating cycles
or: Off, On, Latch, Off	1 x 10 <sup>6</sup> operating cycles
Switching frequency	max. 30/min
Assembly	2 x M8
Connection	screw connections (M3,5)
Number of connections	8
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	2 x M20 x 1,5; 1 x M25 x 1,5
Weight	≈ 1,5 kg
Protection type	IP65 in accordance with IEC/EN 60529

ID for safety engineering	
B10d	2 x 10 <sup>6</sup> 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 ISO 13849-1

EU Conformity	
	acc. to directive 2014/35/EU

Function	
<p>Three-stage safety switch with latching</p> <p>The safety contact element consists of two adjoining switching systems which guarantee a normal work flow and in the case of an emergency the safety function "emergency-stop".</p> <ol style="list-style-type: none"> <li>The normal work flow is initiated by pressing down the pedal to the pressure point, whereby the contacts 13 – 14 closed and 21 – 22 are opened in succession.</li> <li>In an emergency, the pedal is fully depressed (beyond the pressure point). The normally closed contacts 31-32 and 41 – 42 are force disconnected stopping the machine, simultaneously the latch engages and holds the contacts 31-32 and 41-42 in this "Emergency stop" status, preventing an unauthorised re-start of the machine.</li> </ol> <p>Safety for man and machine!</p> <ol style="list-style-type: none"> <li>Only after releasing the latch, by pressing the push button mounted in the side of the footswitch body, do the contacts reset allowing normal operation to resume.</li> </ol> <p>The working process continues.</p>	

**Notes**

Unused threaded holes and openings for fitted parts are to be permanently closed with blanking plugs or with the appropriate fitted inserts.

The degree of protection specified (IP code) applies only to a properly closed protective guard and the use of an equivalent cable gland with adequate cable, blanking plugs, fitted inserts or sealing plugs.