

Foot-switch Series F1

Description **F1-SU1ZCA2ZDR**

Article number **6161500690**

Operating diagram

Rest position
Arbeitsstellung / Druckpunkt
Detent position / Pedal stopper

Scale and proportions can differ

To reach the position of rest, the pressure point must be overcome and the pedal must be depressed as far as it will go.

Operating symbol
(three-stage safety switch with „Off-On-Off“ detent)

Pressure point

„Off“ position „On“ position „Off“ position

Before the switches latches, the pressing point has to be surmounted.

Electrical data

Rated insulation voltage	U_i	250 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	\ominus	acc. to IEC/EN 60947-5-1, Annex K (pedal stop)
Short-circuit protective device		Fuse 2 A gG
Protection class		I

Mechanical Data	
Enclosure	AL, die-cast
Protective guard	AL, die-cast
Actuator	Foot lever (PA)
Ambient air temperature	-30 °C ... +80 °C
Contact type	3 N.C. / 1 N.O. (Zb)
Operating force	≈ 10 N (pedal centre)
Pressure point	≈ 460 N
Mechanical life	
without actuating the pressure point	10 x 10 ⁶ operating cycles
with actuating the pressure point	1 x 10 ⁶ operating cycles
Switching frequency	≤ 30/min
Assembly	2 x M8
Connection	screw connections (M3,5)
Number of connections	8
Conductor cross-sections	Solid: 0,5 ... 1,5 mm ² Litz wire with ferrules: 0,5 ... 1,5 mm ²
Cable entrance	3 x M20x1,5
Protection ground	2 x M4
Weight including protective guard	≈ 1,5 kg
Protection type	IP 65 acc. to IEC/EN 60529

Kennzahlen für Sicherheitstechnik		
B10d	ohne betätigen des Druckpunktes	20 x 10 ⁶ Schaltspiele
	mit betätigen des Druckpunktes	2 x 10 ⁶ Schaltspiele

Standards	
	DIN EN 60947-5-1
	DIN EN ISO 13849-1

EU Conformity	
	acc. to directive 2006/42/EC (Machinery Directive)

Function
<p>Three stage safety footswitch with latch</p> <p>The safety footswitch contacts are wired in series, this allows normal machine operation with the advantage of a safety latched „Emergency stop“ if the pedal is fully depressed.</p> <ol style="list-style-type: none"> 1. Rest-Machine stopped. 2. Machine start is enabled by depressing pedal to the pressure point, this closed the normally open contacts 13-14 and opened the normally closed contacts 21-22. 3. 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. „Safety for man and machine“ 3. 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.

Approvals	
	DGUV
	cUSAus A300 (same polarity)
	CCC

Notes
The specified degree of protection (IP code) only applies when the cover is closed and an at least equivalent cable gland with corresponding cable is used.