## Foot-switch

## Series F1

Description


Switching symbol
(Three-Step-Safety Switch with latching function „Off - On - Off")

„Off" position

"On" position

„Off" position

## Electrical data

| Rated insulation voltage | $\mathrm{U}_{\mathrm{i}}$ | 250 V AC |
| :--- | :--- | :--- |
| Conv. thermal current | $\mathrm{I}_{\text {the }}$ | 10 A |
| Rated operational voltage | $\mathrm{U}_{\mathrm{e}}$ | 240 V |
| Utilization category |  | AC-15, $\mathrm{U}_{\mathrm{e}} / \mathrm{I}_{\mathrm{e}} 240 \mathrm{~V} / 3 \mathrm{~A}$ |
| Direct opening action | $\Theta$ | acc. to IEC/EN 60947-5-1, Annex K |
| Short-circuit protective device |  | Fuse $2 \mathrm{~A} \mathrm{gL/gG}$ |
| Protection class | I |  |

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## Mechanical data

| Enclosure | AL, die-cast |
| :---: | :---: |
| Protective guard (Accident protection cover UN) | AL, die-cast |
| Actuator | Foot lever (PA) |
| Ambient air temperature | $-30^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |
| Contact type | 3 N.C, 1 N.O. (Zb) |
| Operating force | $\approx 10 \mathrm{~N}$ (pedal centre) |
| Pressure point | $\approx 200 \mathrm{~N}$ |
| Mechanical life |  |
| Sequence of the switching position: Off, On, Off | $3 \times 10^{6}$ operating cycles |
| or: Off, On, Latch, Off | $1 \times 10^{6}$ operating cycles |
| Switching frequency | Max. 30/min |
| Assembly | $2 \times \mathrm{M} 8$ |
| Connection | screw terminals (M3,5) |
| Number of connections | 8 |
| Protection ground | $2 \times \mathrm{M} 4$ |
| Conductor cross-sections | Solid: 0,5 .. 1,5 mm² |
|  | Litz wire with ferrules: 0,5 ... 1,5 mm² |
| Cable entrance | $3 \times \mathrm{M} 20 \times 1,5$ |
| Weight | $\approx 2,2 \mathrm{~kg}$ |
| Protection type | IP65 in accordance with IEC/EN 60529 |
| Regulations | VDE 0660 T100, DIN EN 60947-1, IEC 60947-1 |
|  | VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1 |
| EU Conformity | C |

## Safety function (Foot lever)

Three stage safety footswitch with latch
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.

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 3132 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"
4. 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.

## Notes

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.

