SUNS[®] International, LLC

Three-Position Safety Foot Switches (FS-61G-SP-S-ZR Single Pedal)

These foot switches are designed for some critical applications such press brake machine control. These foot switches have at least one of the pedals with 3 positions, with a pressure point, to control dangerous movements.

For press brake control as an example:

press the pedal to lower down a press brake. It has 4 working contacts (2NC+2NO) to drive the movement and one safety switches (1 positive opening NC contact + 1NO) to stop the movement. Pressing the foot pedal, until the pressure point where resistance is noticeable. This allows the changeover of the 2 working contacts and press is moving downward. When press harder beyond the pressure point, the 2 working contacts return to their first position and the positive opening safety contact is activated as redundant safety circuit in order to initiate immediately the dangerous movement. A restart of the machine is only possible after releasing the foot switch.



Specifications

Operating Frequency	60 ops/min	
Insulation Resistance	>100MW@500V DC	
Contact Resistance	<25mW	
Rated Current/Voltage	10A/600V AC A600/AC15 Q300/DC13	
Inrush Current	Complies with IEC947-5-1: AC15/DC13	
Dielectric Strength	1000VAC for 1 min between current carrying parts 2500VAC for 1 min between non-current carrying parts	
Service Life	Mechanically1 x10 ⁶ (operations)Electrically5 x10 ⁵ (operations)	
Operating Temperature	-30~+80°C (-22~176°F)	
Degree of Protection	IP65, NEMA type 2, 4, 13 (IP68, NEMA type 6, 6P available on request)	

Dimensions (mm)







Actuation Sequence Diagram:



SUNS International, LLC

Three-Position Safety Foot Switches (FS-62G-SP-1S-ZR Two Pedal)

These foot switches are designed for critical applications such press brake machine control. The safety pedal has three positions with a pressure point to control hazardous movement. Four working contacts (2NC+2NO) handle normal operation and one safety switch (1 positive opening NC contact + 1NO) provides emergency stop control.

For example, when normal force is applied, the working contacts switch and the press moves downward. Additional force beyond the pressure point will cause the working contacts to return to their initial position and activate the positive opening safety contact. This redundant safety circuit will prevent any further hazardous movement.

> **Specifications Operating Frequency**

Insulation Resistance Contact Resistance

Rated Current/Voltage

Inrush Current

Service Life

Dielectric Strength

Operating Temperature

Degree of Protection

60 ops/min

 $<25m\Omega$

Mechanically

-30~+80°C (-22~176°F)

IP65, NEMA type 2, 4, 13

Electrically

>100MQ@500V DC

10A/600V AC A600/AC15 Q300/DC13

Complies with IEC947-5-1: AC15/DC13

(IP68, NEMA type 6, 6P available on request)

1000VAC for 1 min between current carrying parts

 5×10^5 (operations)

2500VAC for 1 min between non-current carrying parts 1×10^{6} (operations)



Dimensions (mm)



Left Pedal

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13 0	0 14
⊖21 o	b 22

0

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Actuation Sequence Diagram (Right Pedal Only)

