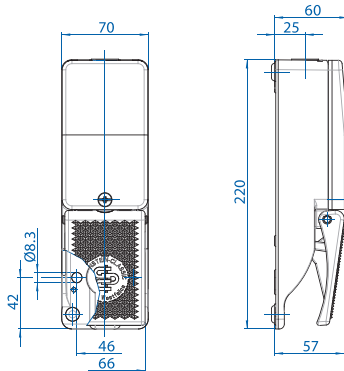


Single Pedal Without Cover

STANDARD



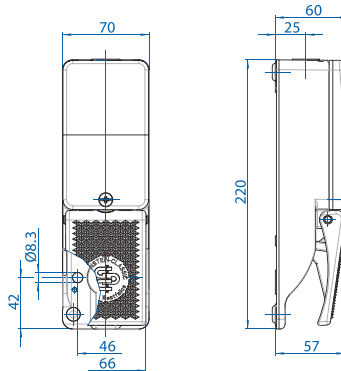
Standard OFF-ON Operation - Push pedal to change contact state. Release pedal to return to original state.



STANDARD with IP67 & IP68 PROTECTION



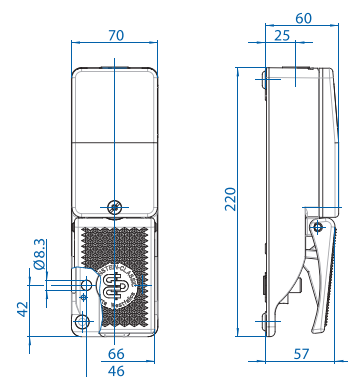
Standard OFF-ON Operation - Push pedal to change contact state. Release pedal to return to original state. With IP67 & IP68 Protection Rating (Temporary Submersion).



TWO STAGE OPERATION



Two Stage Operation- Press Pedal to change the state of the first set of contacts. Continue to press further to change the second set of contacts.



Single pedal foot switch F1			
Article number	Designation	Switching contacts	
Snap-action contact:			
			Pedal 1
606.1300.011	F1-SU1Z	1NC / 1NO	
606.1400.061	F1-SU2Z	2NC / 2NO	
Slow-action contact:			
			Pedal 1
616.1100.005	F1-U1Z	1NC / 1NO	
606.1200.003	F1-U2Z	2NC / 2NO	

Single pedal foot switch F1			
Article number	Cable Entry	Designation	Switching contacts
Slow-action contact (IP 67):			
			Pedal 1
616.1100.469	1 x M20	F1-U1Z	1NC / 1NO
616.1100.469	3 x M20	F1-U1Z	1NC / 1NO
Slow-action contact (IP 68):			
			Pedal 1
616.1100.251	1 x M20	F1-U1Z	1NC / 1NO

Single pedal foot switch F1			
Article number	Designation	Switching contacts	Pressure point
Slow-action contact:			
			Pedal 1
606.1200.007	F1-U2ZD	2NC / 2NO	200 N

Single Pedal Without Cover

LATCHING

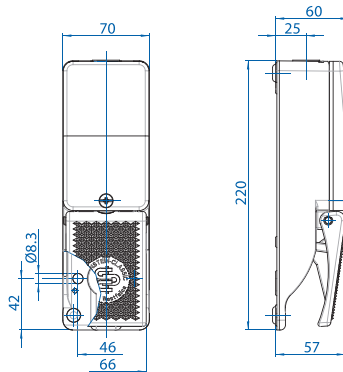
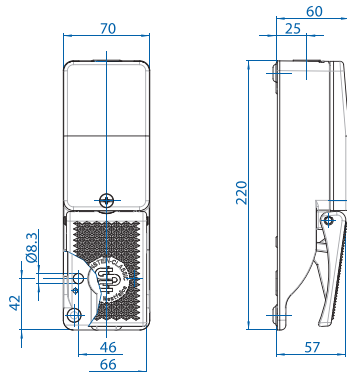


Latching Operation - Push pedal to change contact state. When you release the pedal, the contacts remain in that state. Push again to return to original state.

ANALOG OUTPUT



Analog Output Operation - As the pedal is depress, voltage or amperage (depending on model) is increase. Features an additional programmable NP NO signaling contact that activates at a preset level.



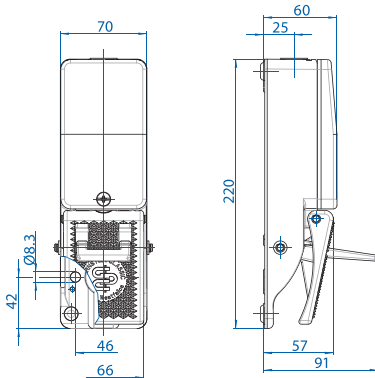
Single pedal foot switch F1			Single pedal foot switch F1		
Article number	Designation	Switching contacts	Article number	Designation	Output Range
		Pedal 1	616.1500.723	F1-AU0-5	0 - 5 V
616.1000.676	F1-A2Y	2NC	616.1500.724	F1-AU0-10	0 - 5 V
606.1100.001	F1-U1Y	1NC / 1NO	616.1500.725	F1-AI0-20	0 - 20 mA
			616.1500.726	F1-AI4-20	4 - 20 mA

Single Pedal With Kick Protection

STANDARD with Anti Trip



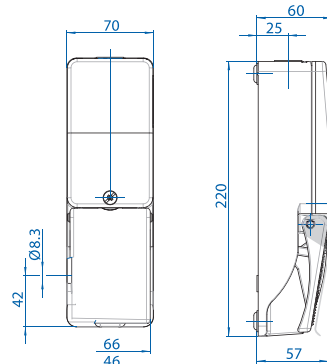
Standard OFF-ON Operation - Push forward in the Anti Trip Pedal Lock to release. Push down pedal to change contact state. Release pedal to return to original state.



STANDARD with Protective Hinged Cover



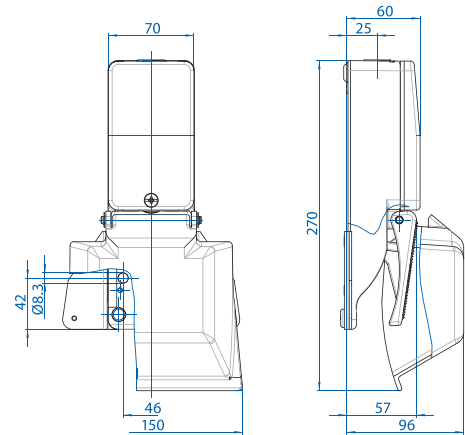
Standard OFF-ON Operation - Lift protective hinged cover up to activate pedal. Push pedal down to change contact state. Release pedal to return to original state. With IP67 Protection Rating (Temporary Submersion).



STANDARD with Protective Shroud



Standard OFF-ON Operation - Lift protective hinged Shroud up to activate pedal. Push pedal down to change contact state. Release pedal to return to original state.



Single pedal foot switch F1		
Article number	Designation	Switching contacts
616.1100.554	F1-U1Z AT	1NC / 1NO

Single pedal foot switch F1		
Article number	Designation	Switching contacts
606.1400.572	F1-SU2Z PS	2NC / 2NO

Single pedal foot switch F1		
Article number	Designation	Switching contacts
616.1600.071	F1-U1Z UK	1NC / 1NO

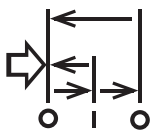
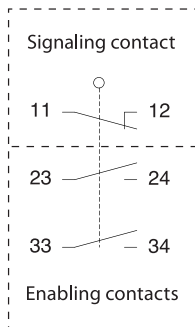
Enabling Foot Switch without Cover

The enable foot switch provides two enabling contacts and one signaling contact and is available with or without latch. If the pedal is pressed up to pressure point, the two enable contacts are closed. If the pedal is released, the enable contacts are open again. If the pedal is pressed past the pressure point, to the bottom position, the positive opening action enabling contacts are opened. When the pedal is released from the bottom position, the enabling contacts remain open through the center position to the top. For the application of an enable device, the rules for DIN EN ISO 12100 and DIN EN 60204-1 apply.

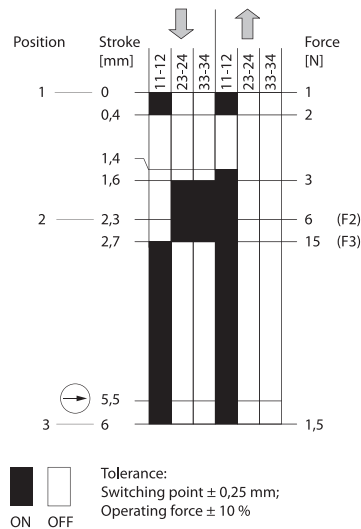
The programmable signaling contact can be used to indicate a fixed position, with a PNP output. By combining both outputs you can determine if the actuation position was made with the top position- the OFF position of the enable contacts (the actuator is not pressed) - or the bottom position - the OFF position of the operating contacts (the actuator is fully pressed).



Circuit symbol

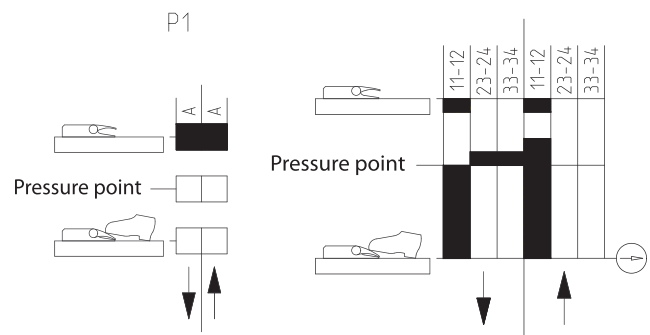


Switching diagram



The indicated travels and forces refer to the switch-in contact of the foot switch with latching function.

Switching diagram with PNP sensor



Example of a switching diagrams with static position monitoring in position 1

Single pedal enable foot switch F1

Article number	Designation	Switching contacts	Pressure point	Special feature
606.1500.559	F1-ZSD	1NC / 2NO	200 N	Pressure point D
606.1500.567	F1-ZSDR	1NC / 2NO	200 N	Pressure point D, Latching R
606.1500.569	F1-ZSP1D	1NC / 2NO	200 N	Additional board 1*, Pressure point D
606.1500.570	F1-ZSP3D	1NC / 2NO	200 N	Additional board 3**, Pressure point D

* Additional board PNP for determination of switching position 1
** Additional board PNP for determination of switching position 3

Technical data

Electrical data		
Rated insulation voltage	U_i	400 V AC
		250 V AC (in type designation "ZS", "EX")
Rated impulse strength	U_{imp}	4 kV *
		2,5 kV (in type designation "C", "ZS", "EX") *
Conventional thermal current	I_{the}	10 A
		5 A (in type designation "ZS", "EX")
Utilization category		AC-15, U_e / I_e 240 V / 3 A
		AC-15, U_e / I_e 240 V / 1,5 A (in type designation "ZS")
Positive opening		according to IEC/EN 60947-5-1, Addendum K (when reaching the pedal stop)
Over-voltage category (switch-in contact with enabling function)		III (according to IEC 60664-1)
Protection class		I

* does not apply to "MI" and "MI RG" in article designation

Mechanical data	
Enclosure	Cast aluminum (powder-coated)
Cover, Protective shroud UN	Cast aluminum (powder-coated)
Foot pedal	Thermoplastic
Ambient temperature (with no icing / no condensation)	-30°C to +80°C (-20°C to +65°C in type designation "EX")
Storage temperature	-30°C bis +80°C (-20°C to +65°C in type designation "EX")
Mechanical service life	> 1 x 10 ⁶ switching cycles when using switches with potentiometer 5 x 10 ⁴
Switching frequency	50 min ⁻¹ when using switches with potentiometer 20 min ⁻¹
Type of connection	Screw connections (M3,5)
Conductor cross sections	Single-wire 0,5 – 1,5 mm ² or stranded wire with ferrule 0,5 – 1,5 mm ²
Cable entry	M20 x 1,5
Weight with cover	F1 ≈ 0,6 kg, F2 ≈ 1,7 kg, F3 ≈ 3,0 kg
Weight with protective shroud UN	F1 ≈ 1,5 kg, F2 ≈ 2,6 kg, F3 ≈ 5,4 kg
Protection class	Protection class depends on type. Standard is IP 65.

Standard values for safety technology

B10d	20 x 10 ⁶
	6 x 10 ⁶ Restrictions in article designation "C" *
	2 x 10 ⁶ Restrictions in article designation "D" *
	4 x 10 ⁶ Restrictions in article designation "EX" *
	1 x 10 ⁵ Restrictions in article designation "ZS" *

* Once a restriction exists, the lowest value needs to be applied.

This technical data is generic to our standard foot switch range, please refer to individual technical data sheets for exact product information as the technical data above may vary.

Standards

VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
 VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1

Approvals*

CCSAUS A300, Q300 (same polarity)
 cUL_{US} B300 (in type designation "ZS")
 DGUV (Only switches that have an appropriate label.)

* Approvals depend on type.
 More information can be found in the data sheet.