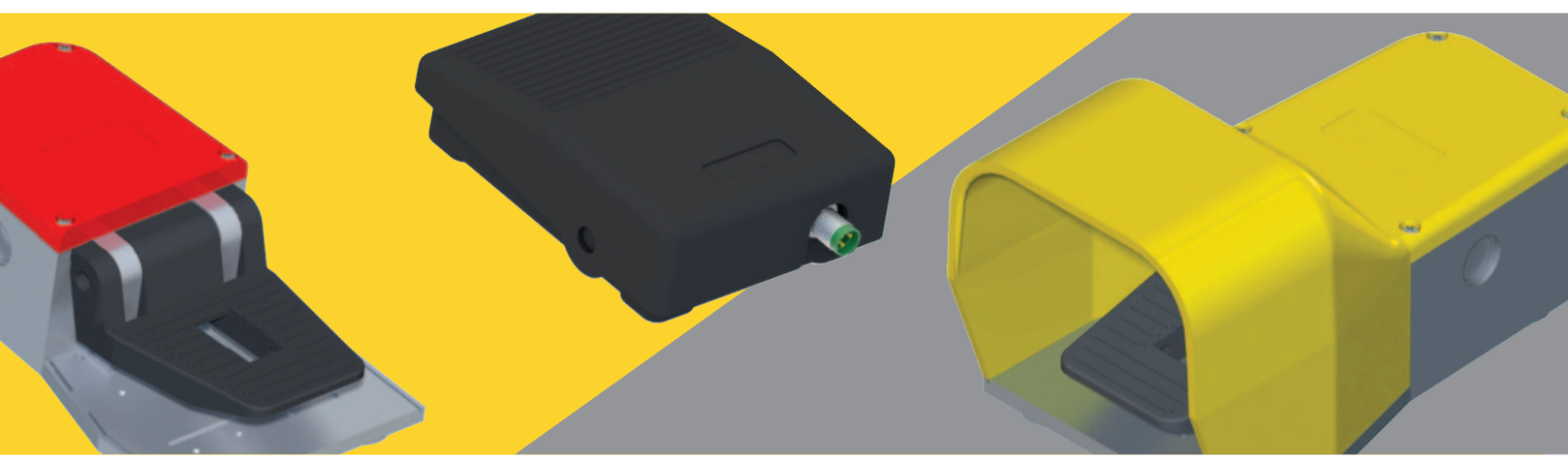
Foot switches



Foot switches **PS... / PD**

Double insulation - Plastic Casing IP65 - Description

APPLICATIONS

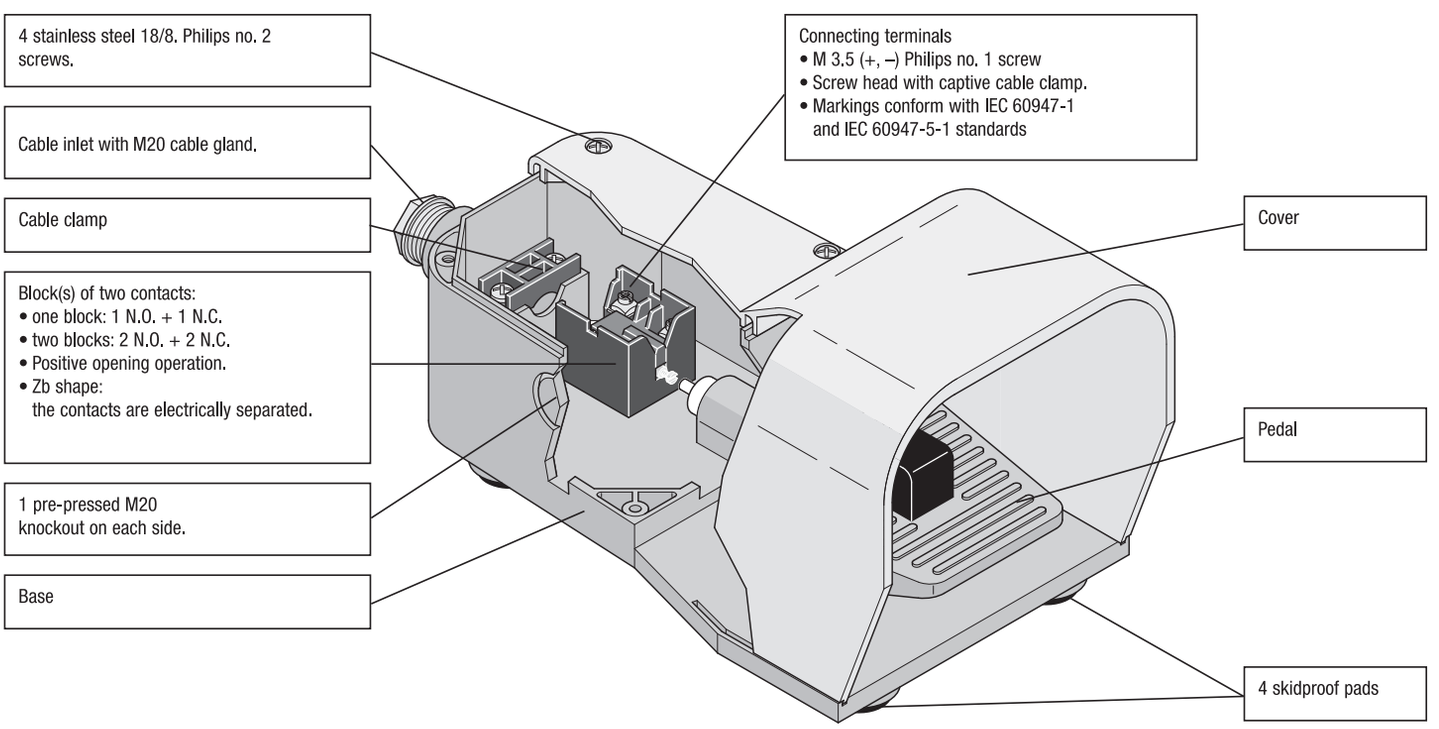
Foot switch operated machines such as: shearing machines, spinning machines, spinning lathers, machine tools, wrapping machines, riveting presses, etc.
Foot switches come in five operation formats:

- **Free movement:** contact position follows pedal movement: actuated when the pedal is pushed down, released when pedal is in state of rest.
- **Foot switch locked in neutral position:** same operation as above, after unlocking the pedal with the end of the foot.
- **Foot switch latched in low position:** same operation as free movement, excepted that a state of rest is obtained only after having unlatched the pedal with the end of the foot.
- **Free movement with two-stage actuating force:** two different contact blocks are actuated with a different force on the lever.
- **Foot switch locked in neutral position with two-stage actuating force:** same operation as above, after unlocking the pedal with the end of the foot

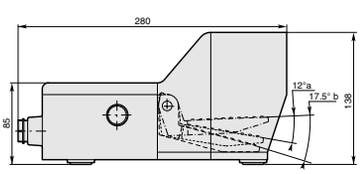
DESCRIPTION OF THE SWITCH

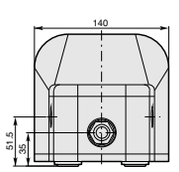
- **Dimensions:** 280 x 140 x138mm.
- **Materials:** **Standard version (IMQ approved):** Base, cover and pedal made of shock resistant ABS material.
  Self-extinguishing / V0 (IMQ, UL, CSA approved): Base, cover and pedal made of Polycarbonate/ABS-V0.
  Metal version / V0-M (IMQ, UL, CSA approved): Cover made in die cast aluminium, base and pedal made of Polycarbonate/ABS-V0.
- **Colour choice:** Grey base; grey, yellow or red cover.
- **Variations:** Grey base, half-red cover. Especially used for emergency stop function.

They comply with the requirements of European Directives (Low Voltage and RoHS) and are conform to European and International Standards.
The CE declaration of these products are available in the download section of website www.comepi.it or by writing to the following email address: tecnico@comepi.it
DDC05 - Foot Switches.



Dimensions (in mm)





• **Technical data** . . . . . pag. 135 • **Accessories** . . . . . pag. 133

Foot switches **PS... / PD**

Double insulation - Plastic Casing IP65 - Description

Symbols

Example:	P	S	1	2	1	1	/	V0
Structure:	P						/	

Type
S = Simple Foot Switch
D = Double Foot Switch

Electrical connection
1 = Pg 16 cable gland
2 = M20 cable gland

Devices
1 = Free movement of the lever
2 = Movement of the lever dependend of the safety device notch
3 = Device to maintain the lever in lowered down position
4 = Free movement with two-stage actuating force
5 = With safety device notch and two-stage actuating force

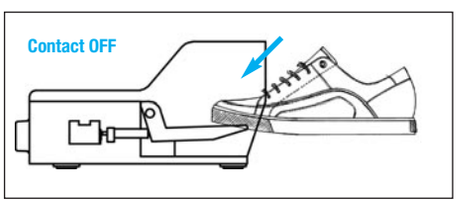
Contact blocks
1 - One (NO+NC) snap action contact
2 - One (NO+NC) slow action contact
3 - Two (NO+NC) snap action contacts
4 - Two (NO+NC) slow action contacts

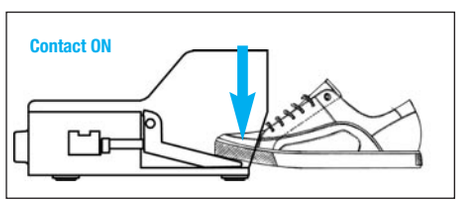
Cover material
– = Shock resistant ABS (standard)
V0 = UL approved self-extinguishing
V0-M = UL approved with aluminium cover

Cover colour **1 =** Yellow / **2 =** Grey / **3 =** Yellow + Grey (PD series)
4 = Red / **5 =** Half red cover / **7 =** Half yellow cover / **8 =** Half grey cover

DEVICES

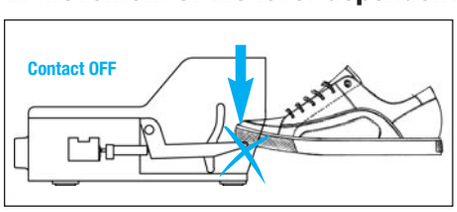
1: Free movement of the lever

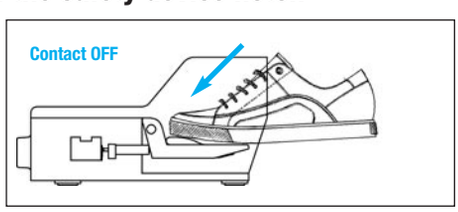


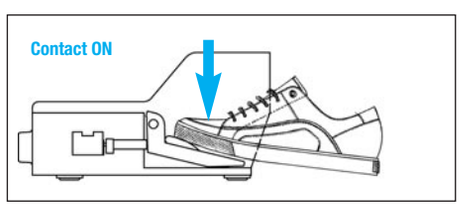


The lever can be actuated without any particular device.

2: Movement of the lever dependent of the safety device notch

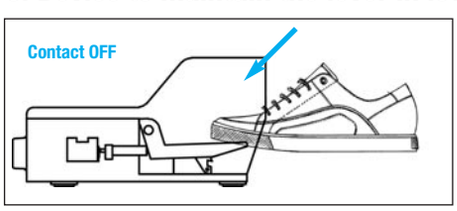


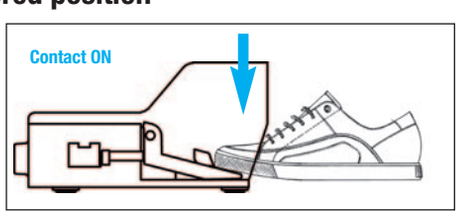


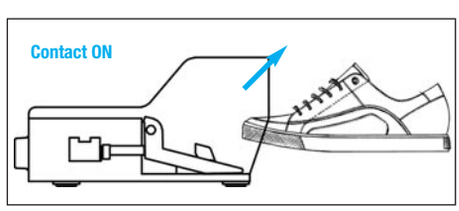


The pedal can be actuated only by lowering the safety lever fully inserting the foot, thus preventing any accidental actuation.

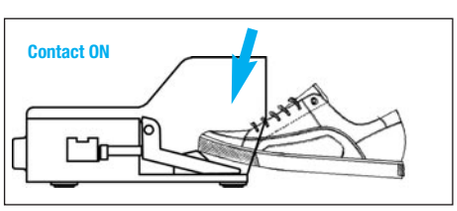
3: Device to maintain the lever in lowered position

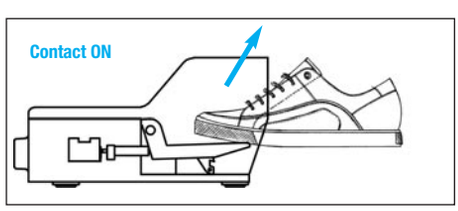






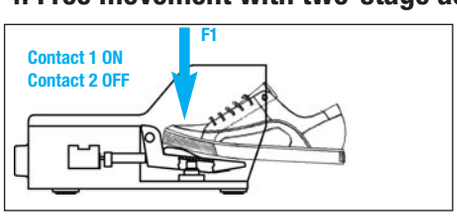
By pushing the lever the contact switches and the lever remains locked in lowered position.

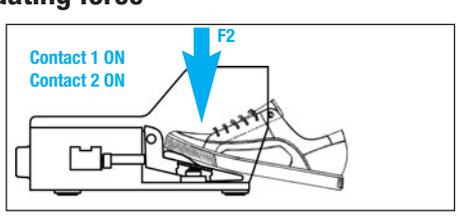




Push the locking device in order to unlock the pedal actuator.
Once you release the lever the contacts return to their initial position.

4: Free movement with two-stage actuating force





By applying a light pressure F1 on the lever, the first contact block will be actuated while the second keeps in state.
An higher pressure F2 on the lever will switch also the second contact block.

5: With safety device notch and two-stage actuating force

Same as above but the pedal can be actuated only by completely inserting the foot in the device.

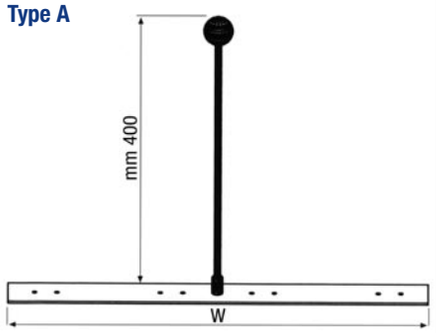
Foot switches **PS... / PD**

Double insulation - Plastic Casing IP65 - Accessories

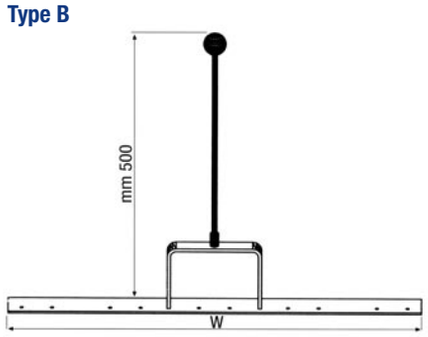
Carrying Rod Kits

Example of application

Type A



Type B

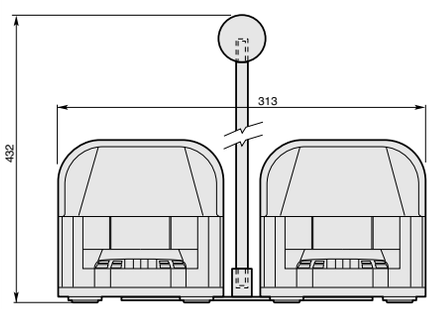


Order Code	Description	W (mm)	Type
PD1000	Max 2 Foot Switches*	225	A
PD1001	Max 3 Foot Switches*	405	B
PD1002	Max 4 Foot Switches*	580	A
PD1003	Max 5 Foot Switches*	745	B

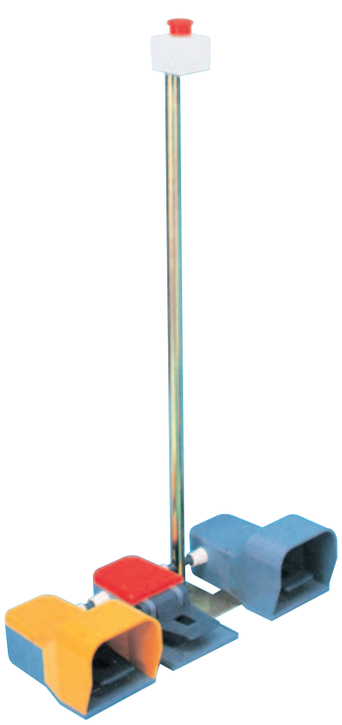
** Foot Switches not included*

Note: Each carrying rod kit includes necessary fixing screws and cable glands for the specified number of foot switches.

Example of double foot switch application

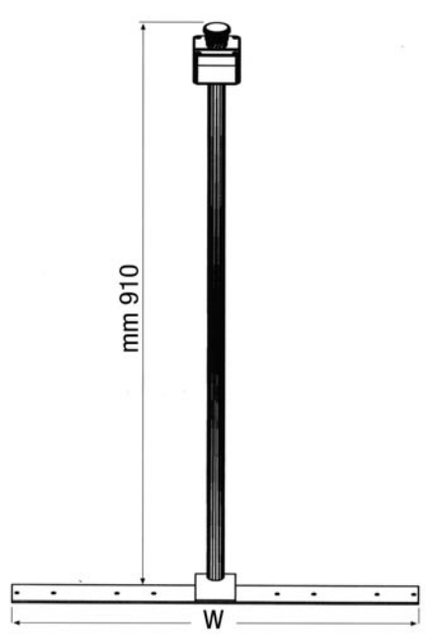


Metal Steel Frame



Esempio di applicazione

Type A



Order Code	Description	W (mm)
GR2025	For 1 foot switch only*	175
GR2026	Max 2 foot switches*	280
GR2027	Max 3 foot switches*	440
GR2028	Max 4 foot switches*	580

** Foot Switches not included*

Attention!
Push button and plastic box not included: please consult our "Control Units Ø22" catalog.

Note: Each carrying rod kit includes necessary fixing screws and cable glands for the specified number of foot switches.

COMEPI

Foot switches **PS... / PD**

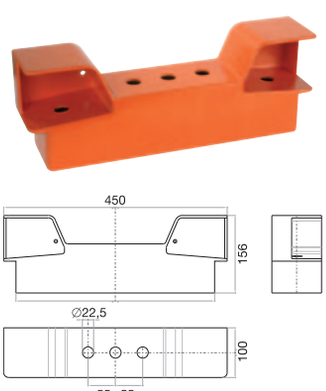
Two hand control station with support base

GR2030

Aluminium two hand control station

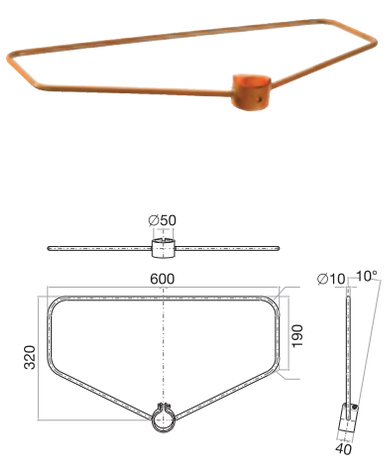
GR2031

Aluminium two hand control station suitable for adjustable support base



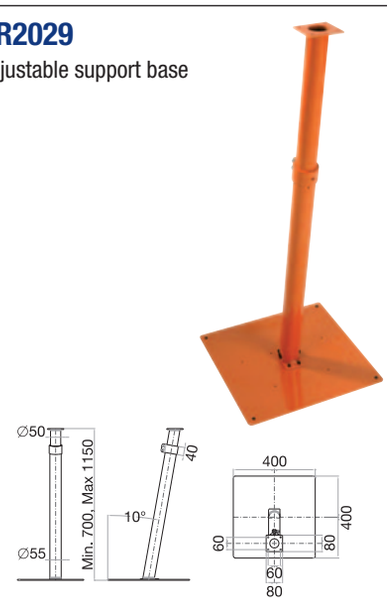
AN003PE

Protection ring



GR2029

Adjustable support base



Foot switches **MP...**

Plastic Casing IP65 - Description

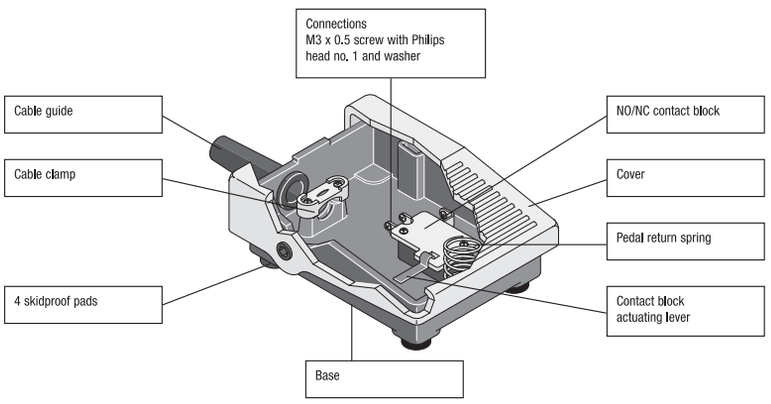
APPLICATIONS

Comepi foot switches of the MP series are plastic foot switches in mini design that besides their robust form and technical versatility are specially convincing for their functionality and ergonomic design. They can be applied on foot switch operated machines such as: shearing machines, spinning lathers, machine tools, wrapping machines, riveting presses, etc.

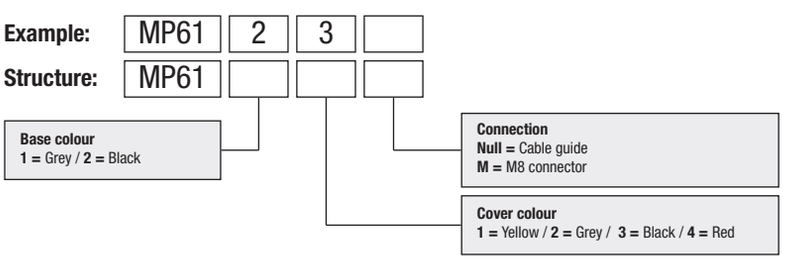
DESCRIPTION OF MP6... MINI FOOT SWITCHES

- **Dimensions:** 100 x 75 x 34 mm.
- **Materials:** cover and base made of self-extinguishing ABS.
- **Colour choice:** black or grey base; black, grey, yellow or red cover.

They comply with the requirements of European Directives (Low Voltage and RoHS) and are conform to European and International Standards. The CE declaration of these products are available in the download section of website www.comepi.it or by writing to the following email address: tecnico@comepi.it DDC05 - Foot Switches.

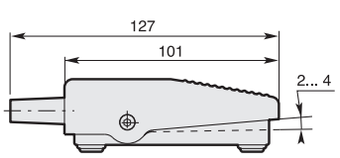


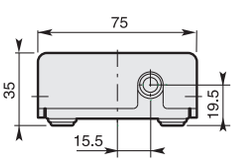
Symbols

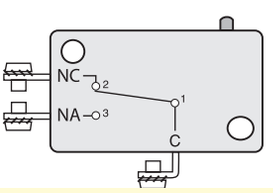


Dimensions (in mm)

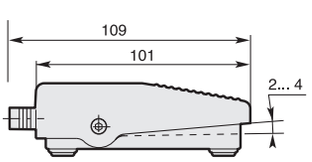
NO / NC Contact Block

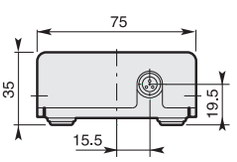


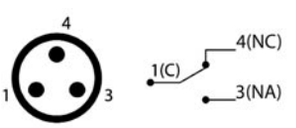




Connection by cable guide







Connection by M8 connector

Accessories

XX3D030SM

3m PVC cable with streight 3 poles M8 female connector

• **Technical data** ..... pag. 135

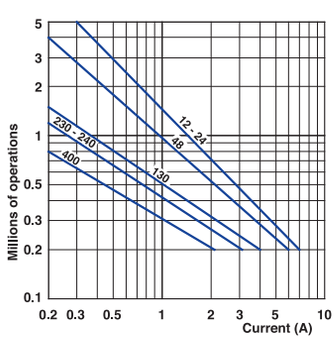
Foot switches
Technical Data

			Mini Foot Switch	Foot Switch with Cover
Standards			EN 61058-1	IEC 60947-5-1
Certifications - Approvals			UL - EAC - UKCA	IMQ - UL and CSA (upon request) - EAC - CCC - UKCA
Air temperature near the device				
– during operation		°C	– 25 ... + 70	– 25 ... + 70
– for storage		°C	– 30 ... + 80	– 30 ... + 80
Climatic withstand			–	according to IEC 60068-2-78 and salty mist according to IEC 60068-2-11
Shock withstand (according to IEC 60068-2-27 and EN 60068-2-27)		g	–	50g (1/2 sinusoidal shock for 11 ms) no change in contact position
Degree of protection (according to IEC 60529 and EN 60529)			IP 40	IP 65
Operating Torque		N.m	1.2	0,25
Operating angle		Degree	2 to 4	15
Cable inlet			Cable guide ø 6 mm; ø max. 8.5	M20

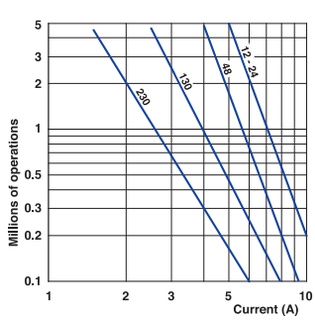
Electrical Data

			Mini Foot Switch	Foot Switch with Cover
Rated insulation voltage U_i		V	250 (50 for M8 connector)	690 (according to IEC 60947-1 and EN 60947-1) Degree of pollution 3
Rated impulse withstand voltage U_{imp} (according to IEC 60947-1 and EN 60947-1)		kV	1	6
Conventional free air thermal current I_{th} $\theta < 40$ °C		A	15 (4 for M8 connector)	10 (according to IEC 60947-1)
Short-circuit protection U_e < 500 V a.c. - gG (gl) type fuses		A	10 (4 for M8 connector)	10
Rated operational current		A	3 (250 V a.c.) for cable guide versions	A 600 (according to UL 508 and CSA C22-2 n° 14)
		A	0.06 (230 V d.c.) for cable guide versions	Q 600 (according to UL 508 and CSA C22-2 n° 14)
AC-15 (according to IEC 60947-5-1)	24 V	A	4 for M8 connector	10
	240 V	A	–	6
	400 V	A	–	4
DC-13 (according to IEC 60947-5-1)	24 V	A	4 for M8 connector	6
	125 V	A	–	0.55
	250 V	A	–	0.4
Resistance between contacts		mΩ	30	25
Connecting terminals			M3 x 0.5 screw with Philips head no. 1 and washer	M3.5 (+, –) pozidriv with cable clamp
Positive opening operation (according to IEC 60947-5-1)			–	⊖
Connecting capacity		1 or 2 x mm²	–	0.75 ... 2.5
Terminal marking			(Refer to contact block page 114)	According to IEC 60947-5-1
Mechanical durability		Millions of operations	10	30
Electrical durability		Operations	100 000	utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves below)

AC-15 - Snap action



AC-15 - Slow action



DC-13		Snap action	Slow action
		Power breaking for a durability of 5 million operating cycles	
Voltage	24 V	9.5 W	12 W
Voltage	48 V	6.8 W	9 W
Voltage	110 V	3.6 W	6 W