



Sealed basic snap action microswitch. A precision microswitch for high breaking capacity, the MP90 series offers IP67 protection using a wide range of interchangeable actuators.

The housing is IP67 sealed using an ultrasonic welding process. High operating temperature and long life makes this switch a perfect solution for industrial applications

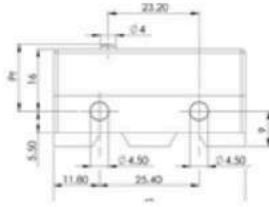
MP90

Approval

EN 61058-1	250VAC/15A	50'000 cycles
EN 61058-1	400VAC/10A	50'000 cycles
UL 61058-1	250VAC/15A	50'000 cycles
UL 61058-1	400VAC/10A	50'000 cycles
Resistive load		

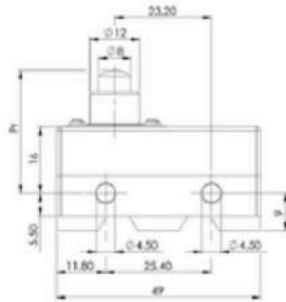
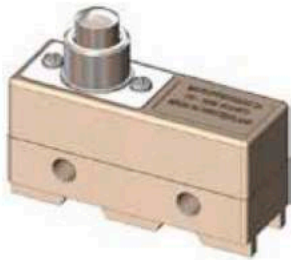
Housing	Plastic reinforced with glass fiber (PBT)
Pin Button	PC
Membrane	Fluorosilicone - other optional materials available
Switching Circuit	Change over - snap action with blade spring in copper/beryllium
Contact	Silver - optional gold
Connection	Screw
Actuator	Stainless steel
Degree of Protection	Housing IP67 Connection IP00
Class of Protection	II
Micro-switching	μ
Distance between Contacts	0.50 mm
Dimensions	DIN 41 635, form ES 49 x 25 x 17.5 mm
Actuation Force	Between 0.2 to 6.0 N, depending on the lever
Differential Travel	0.05 mm - Optional 0.02 mm
Temperature Range	EN 61058-1 -40°C to +130°C UL 61058-1 -40°C to +125°C
Mechanical Life	50 x 10 ⁶ cycles

Type 0: Basic switch - Pin Button



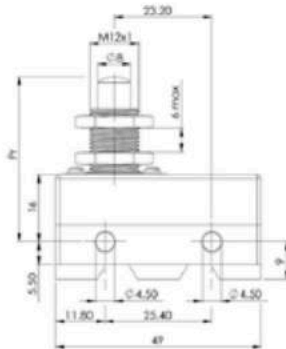
Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	3.0
Free Position Pr (mm)	17.4 ± 0.5
Operating Position Pa (mm)	16.7 ± 0.3
Over-Travel sr min. (mm)	0.25
Differential Travel sd max. (mm)	0.06

Type 1S29: Telescopic



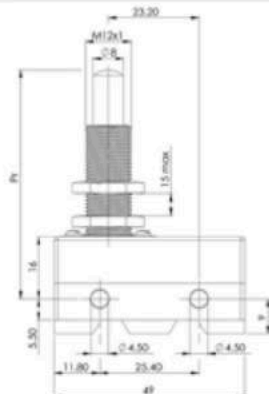
Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	3.0
Free Position Pr (mm)	29.3 ± 0.6
Operating Position Pa (mm)	28.5 ± 0.3
Over-Travel sr min. (mm)	2.0
Differential Travel sd max. (mm)	0.08

Type 1A: Telescopic with Short Thread



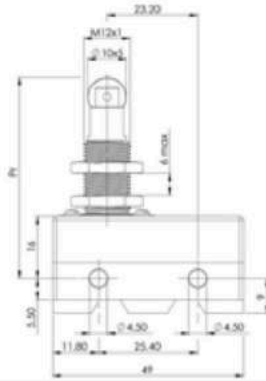
Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	3.0
Free Position Pr (mm)	39.1 ± 0.6
Operating Position Pa (mm)	38.4 ± 0.3
Over-Travel sr min. (mm)	5.0
Differential Travel sd max. (mm)	0.08

Type 1A58: Telescopic with Thread



Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	2.5
Free Position Pr (mm)	58.0 ± 1.0
Operating Position Pa (mm)	57.3 ± 0.3
Over-Travel sr min. (mm)	10.0
Differential Travel sd max. (mm)	0.10

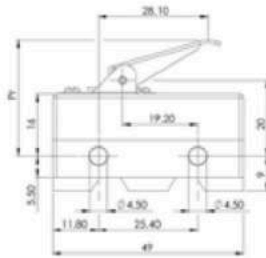
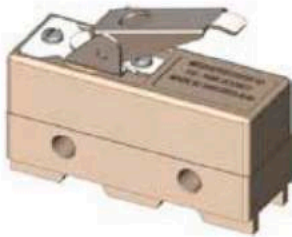
Type 1BL: Telescopic with Roller



Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	3.0
Free Position Pr (mm)	51.3 ± 0.6
Operating Position Pa (mm)	50.6 ± 0.3
Over-Travel sr min. (mm)	5.0
Differential Travel sd max. (mm)	0.08

Optional: stainless steel roller, transvers roller

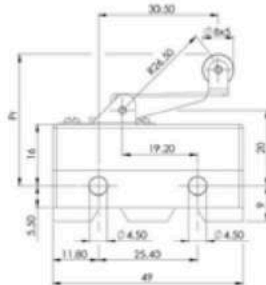
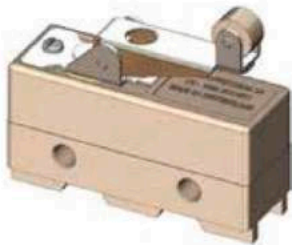
Type 3A: Simple Lever - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.2
Free Position Pr (mm)	30.3 ± 1.5
Operating Position Pa (mm)	28.5 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.50

Optional: lever mounted on opposite side

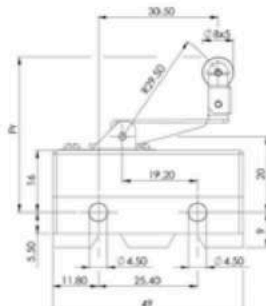
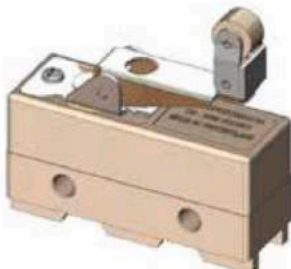
Type 5AL: Simple Lever with Roller - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.2
Free Position Pr (mm)	34.4 ± 1.5
Operating Position Pa (mm)	31.9 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.60

Optional: lever mounted on opposite side, stainless steel roller, transvers roller

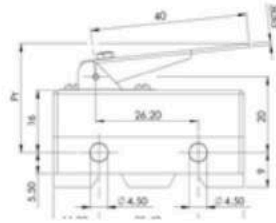
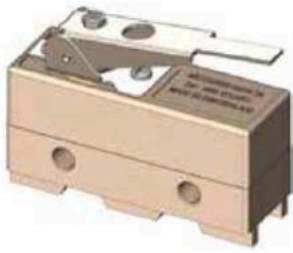
Type 6AL: Simple Lever with Bending Roller - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.2
Free Position Pr (mm)	40.5 ± 1.5
Operating Position Pa (mm)	37.9 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.60

Optional: lever mounted on opposite side, stainless steel roller, transvers roller

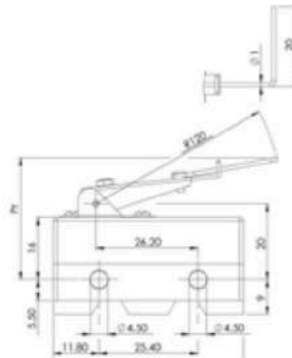
Type 7A40 : Simple Adjustable Lever - Direct Action -



Actuating Force Fa max. (N)	0.6
Release Force Fr min. (N)	0.2
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	0.80

Optional : lever mounted on opposite side

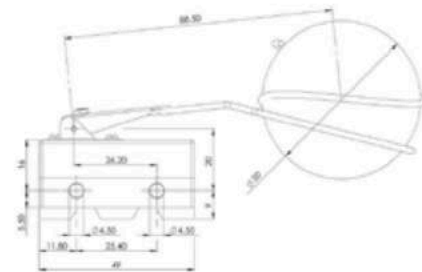
Type 7AC : Simple Adjustable Lever with Wire - Direct Action -



Actuating Force Fa max. (N)	0.2
Release Force Fr min. (N)	0.05
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	4.00

Optional : lever mounted on opposite side

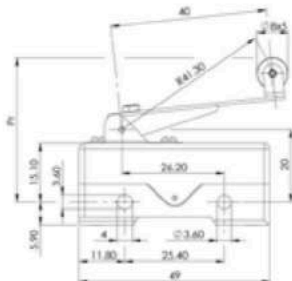
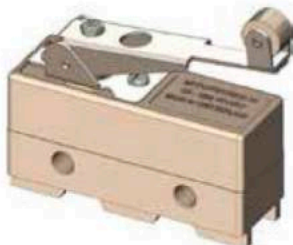
Type 7AF/63.5/50 : Simple Lever with Floater - Direct Action -



Actuating Force Fa max. (N)	-
Release Force Fr min. (N)	-
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	2.00

Optional : lever mounted on opposite side

Type 8AL40 : Simple Adjustable Lever with Roller - Direct Action -



Actuating Force Fa max. (N)	0.6
Release Force Fr min. (N)	0.2
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	0.80

Optional : lever mounted opposite side, stainless steel roller, transvers roller

Electrical Circuit

	Actuator Code	Circuit		Actuator Code	Circuit
Direct Action	0		Indirect Action	3A	
	1S29				
	1A				
	1A58				
	1BL				
	7A40				
	7AC				
	7AF/63.5/50				
	8AL40				

Ordering Information

MP9 0 - 5AL

Contact

- 0:** Silver Contact
- 1:** Gold Contact

Actuator

- 0:** Basic switch - Pin Button
- 1S29:** Telescopic
- 1A:** Telescopic with Short Thread
- 1A58:** Telescopic with Thread
- 1BL:** Telescopic with Roller
- 3A:** Simple Lever - Indirect Action
- 5AL:** Simple Lever with Roller - Indirect Action
- 6AL:** Simple Lever with Bending Roller - Indirect Action
- 7A40:** Simple Adjustable Lever - Direct Action
- 7AC:** Simple Adjustable Lever with Wire - Direct Action
- 7AF/63.5/50:** Simple Lever with Floater - Direct Action
- 8AL40:** Simple Adjustable Lever with Roller - Direct Action