

Microswitch - SERIES MP40

Series MP40

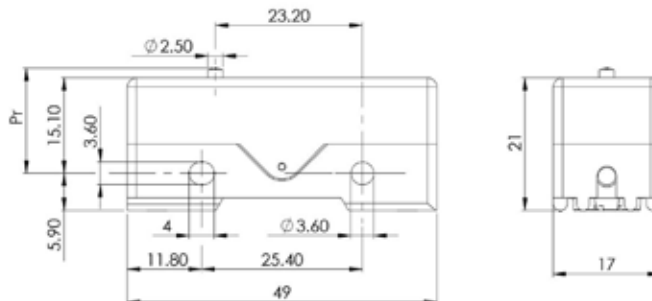
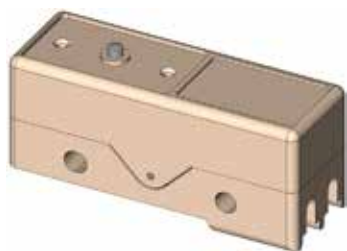


MP40

Basic snap action microswitch. A precision microswitch for high breaking capacity, the MP40 series offer IP40 protection with screw lugs or solder terminals using a wide range of interchangeable actuators. The switch is ideally suited for industrial applications with its wide operational temperature range and optional low actuating force.



Description

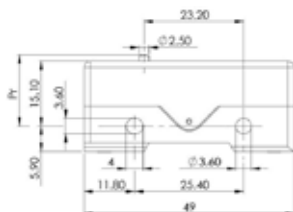
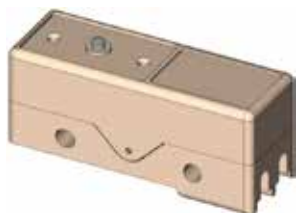


MP40

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	PBT
Switching Circuit	Change over - snap action with blade spring in copper/beryllium
Contact	Silver - optional gold
Connection	Screw, solder lugs, protection cover
Actuator	Stainless steel
Degree of Protection	Housing IP40 Connection IP00 Protection Cover IP20
Class of Protection	II
Micro-switching	μ
Distance between Contacts	0.30 mm
Dimensions	DIN 41 635, form A 49 x 21 x 17 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 +130°C
Mechanical Life	50 x 10 ⁶ cycles

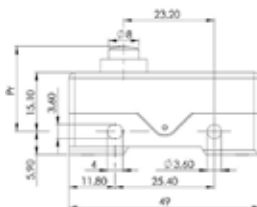
Actuator

Type 0 : Basic switch - Pin Button



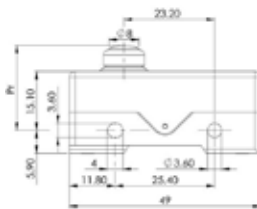
Actuating Force Fa max. (N)	5.0
Release Force Fr min. (N)	2.5
Free Position Pr (mm)	16.3 ± 0.5
Operating Position Pa (mm)	15.9 ± 0.3
Over-Travel sr min. (mm)	0.25
Differential Travel sd max. (mm)	0.05

Type 1S21 : Telescopic Built-In



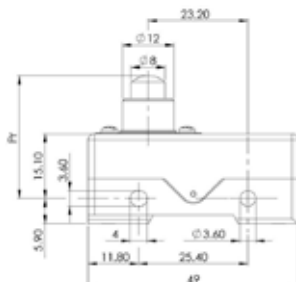
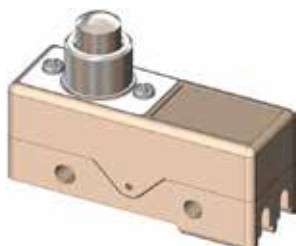
Actuating Force Fa max. (N)	5.0
Release Force Fr min. (N)	2.0
Free Position Pr (mm)	21.7 ± 0.6
Operating Position Pa (mm)	21.3 ± 0.3
Over-Travel sr min. (mm)	1.2
Differential Travel sd max. (mm)	0.06

Type 1SP21 : Telescopic Built-In with Protective Sleeve



Actuating Force Fa max. (N)	5.0
Release Force Fr min. (N)	2.0
Free Position Pr (mm)	21.7 ± 0.6
Operating Position Pa (mm)	21.3 ± 0.3
Over-Travel sr min. (mm)	1.00
Differential Travel sd max. (mm)	0.06

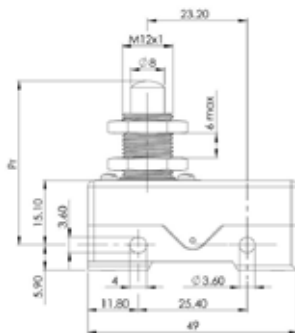
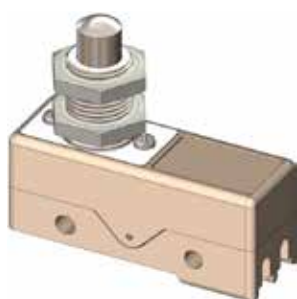
Type 1S29 : Telescopic



Actuating Force Fa max. (N)	5.0
Release Force Fr min. (N)	2.5
Free Position Pr (mm)	28.4 ± 0.6
Operating Position Pa (mm)	27.9 ± 0.3
Over-Travel sr min. (mm)	2.0
Differential Travel sd max. (mm)	0.05

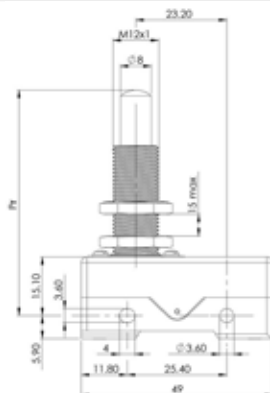
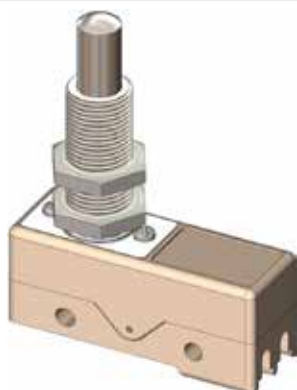
Actuator

Type **1A**: Telescopic with Short Thread



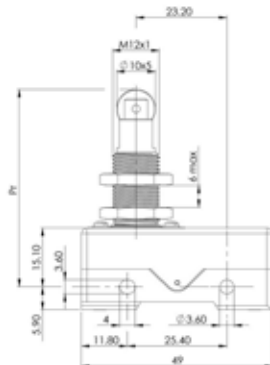
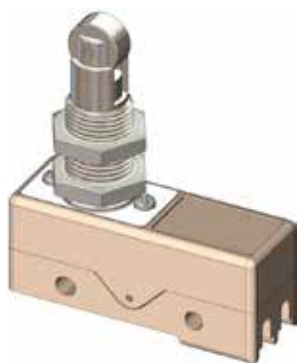
Actuating Force F_a max. (N)	5.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	38.0 ± 0.6
Operating Position P_a (mm)	37.5 ± 0.3
Over-Travel s_r min. (mm)	5.0
Differential Travel s_d max. (mm)	0.05

Type **1A58**: Telescopic with Thread



Actuating Force F_a max. (N)	5.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	57.2 ± 1.0
Operating Position P_a (mm)	56.7 ± 0.3
Over-Travel s_r min. (mm)	10.0
Differential Travel s_d max. (mm)	0.10

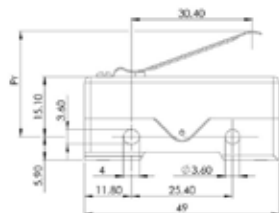
Type **1BL**: Telescopic with Roller



Actuating Force F_a max. (N)	5.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	50.3 ± 0.6
Operating Position P_a (mm)	49.8 ± 0.3
Over-Travel s_r min. (mm)	5.0
Differential Travel s_d max. (mm)	0.05

Optional: stainless steel roller, transvers roller

Type **2A**: Simple Lever - Direct Action -

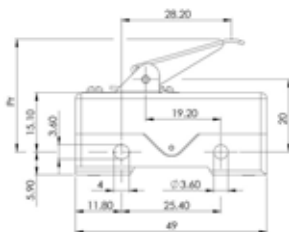
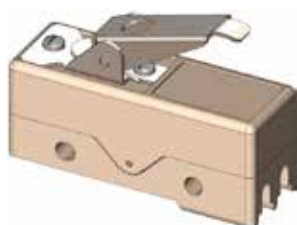


Actuating Force F_a max. (N)	2.5
Release Force F_r min. (N)	0.7
Free Position P_r (mm)	27.0 ± 2.0
Operating Position P_a (mm)	22.0 ± 2.0
Over-Travel s_r min. (mm)	2.0
Differential Travel s_d max. (mm)	0.80

Actuator

Series MP40

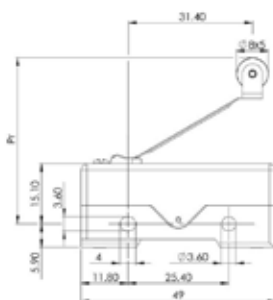
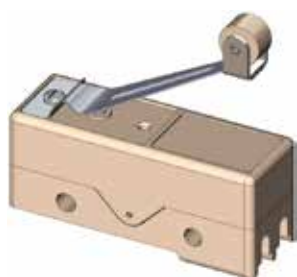
Type 3A : Simple Lever - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.5
Free Position Pr (mm)	28.7 ± 1.5
Operating Position Pa (mm)	26.8 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.50

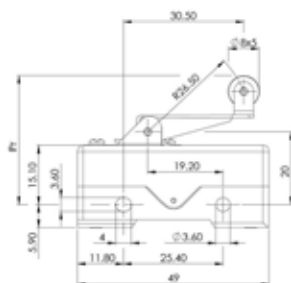
Optional: lever mounted on opposite side

Type 4AL : Simple Lever with Roller - Direct Action -



Actuating Force Fa max. (N)	2.5
Release Force Fr min. (N)	0.7
Free Position Pr (mm)	40.0 ± 2.0
Operating Position Pa (mm)	34.0 ± 2.0
Over-Travel sr min. (mm)	2.0
Differential Travel sd max. (mm)	0.80

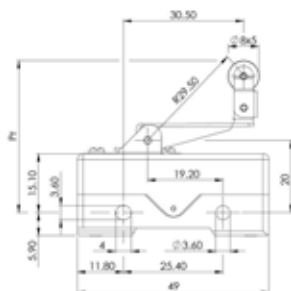
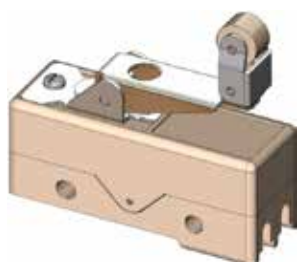
Type 5AL : Simple Lever with Roller - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.5
Free Position Pr (mm)	32.4 ± 1.5
Operating Position Pa (mm)	30.0 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.50

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

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

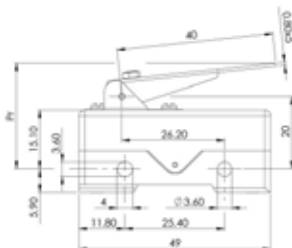
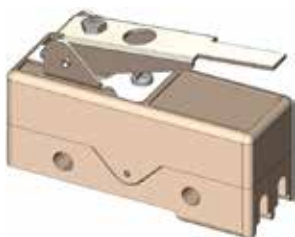


Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.5
Free Position Pr (mm)	38.4 ± 1.5
Operating Position Pa (mm)	36.0 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.50

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

Actuator

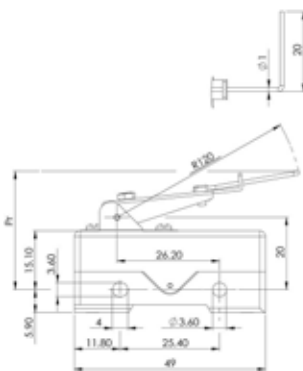
Type **7A40** : Simple Adjustable Lever - **Direct Action** -



Actuating Force Fa max. (N)	0.5
Release Force Fr min. (N)	0.15
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	0.70

Optional: lever mounted on opposite side

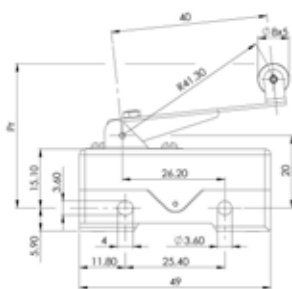
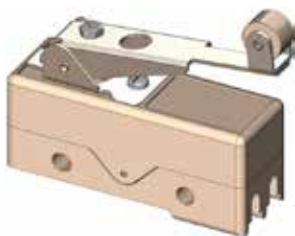
Type **7AC** : Simple Adjustable Lever with Wire – **Direct Action** -



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)	3.00

Optional: lever mounted on opposite side

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



Actuating Force Fa max. (N)	0.5
Release Force Fr min. (N)	0.15
Free Position Pr (mm)	-
Operating Position Pa (mm)	Ajustable
Over-Travel sr min. (mm)	-
Differential Travel sd max. (mm)	0.70

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

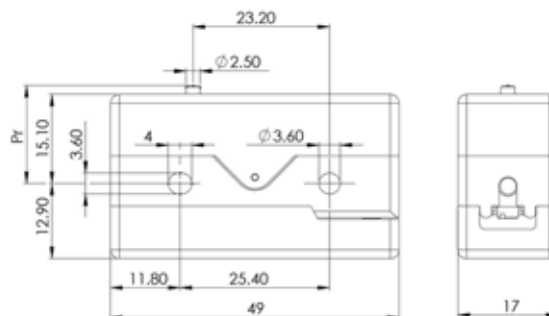
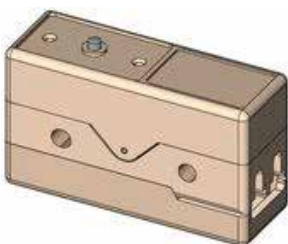
Electrical Circuit

	Actuator Code	Circuit		Actuator Code	Circuit
Direct Action	0		Indirect Action	3A	
	1S21				
	1SP21				
	1S29				
	1A				
	1A58				
	1BL				
	2A				
	4AL				
	7A40				
	7AC				
	8AL40				

Protection Cover

A protection cover is available to protect the user from any contact with the terminals of the MP40 under power. The protection cover MP40-Z is fixed to the MP40 housing by means of a screw Parker.

MP40-0 + MP40-Z





Ordering Information

MP 4 0 - 5AL + MP40-Z

Housing

4: Screw Terminals

5: Solder Lugs

Contact

0: Silver Contact

1: Gold Contact

Actuator

0: Basic switch - Pin Button

1S21 Telescopic Built-In

1SP21 Telescopic Built-In with Protective Sleeve

1S29: Telescopic

1A: Telescopic with Short Thread

1A58: Telescopic with Thread

1BL: Telescopic with Roller

2A: Simple Lever - Direct Action

3A: Simple Lever - Indirect Action

4AL: Simple Lever with Roller - Direct 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

8AL40: Simple Adjustable Lever with Roller - Direct Action

Optional

MP40-Z Protection Cover

Series MP40