

Microswitch - SERIES MP210/220

tel. 02.3361.1626 info@elitaliaweb.it
fax 02.2626.1009 www.elitaliaweb.it

ELITALIA



Series MP210/220

MP210/220

The MP210/220 is an IP67 sealed snap action microswitch with potted cable for demanding industrial applications. All actuators are stainless steel for maximum protection in hazardous industrial environments.

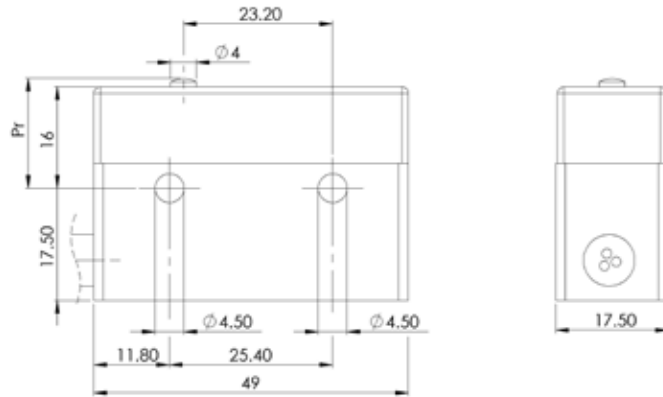
The switch can be supplied with two different electrical circuits.

The MP210 version is a single pole double throw microswitch for a power rating of 250VAC/15A. In its MP220 version a single pole double break circuit can double-break a power line of 250VAC/10A. Operational temperature rating under EN61058 is -40°C to +130°C, but temperature rating as well as the power rating may change based on the selected potted cable material and cross section.



Description

tel. 02.3361.1626 info@elitaliaweb.it
 fax 02.2626.1009 www.elitaliaweb.it



MP210

MP220

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
 CSA C22.2 250VAC/6A 6'000 cycles*
 Resistive load

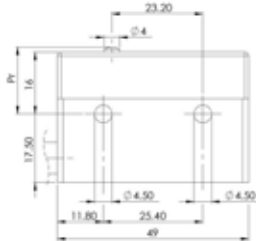
EN 61058-1 250VAC/10A 50'000 cycles
 UL 61058-1 250VAC/10A 50'000 cycles
 Resistive load

*Optional

Housing	Plastic reinforced with glass fiber (PBT)	Plastic reinforced with glass fiber (PBT)
Pin Button	PC	PC
Membrane	Fluorosilicone - other optional materials available	Fluorosilicone - other optional materials available
Switching Circuit	Change over - snap action with blade spring in copper/beryllium	Double Break - snap action with blade spring in copper/beryllium
Contact	Silver - optional gold	Silver - optional gold
Connection	Cable PVC -20°C to +105°C PVCU -20°C to +105°C (Approval UL) PUR -40°C to +90°C SI -40°C to +130°C Other material optional	Cable PVC -20°C to +105°C PVCU -20°C to +105°C (Approval UL) PUR -40°C to +90°C SI -40°C to +130°C Other material optional
Actuator	Stainless steel	Stainless steel
Degree of Protection	Housing IP67 Connection IP67	Housing IP67 Connection IP67
Class of Protection	II	II
Micro-switching	μ	μ
Distance between Contacts	0.80 mm	0.80 mm
Dimensions	DIN 41 635, form E 49 x 35 x 17.5 mm	DIN 41 635, form E 49 x 35 x 17.5 mm
Actuation Force	Between 0.2 to 6.0 N, depending on the lever	Between 0.2 to 6.0 N, depending on the lever
Differential Travel	0.05 mm - Optional 0.02 mm	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 Cable selection may reduce temperature range	EN 61058-1 -40°C to +130°C UL 61058-1 -40°C to +125°C Cable selection may reduce temperature range
Mechanical Life	50 x 10 ⁶ cycles	50 x 10 ⁶ cycles

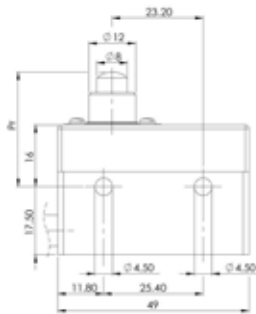
Series MP210/220

Type 0: Basic switch - Pin Button



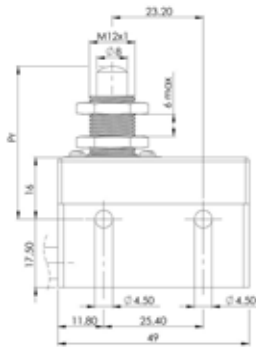
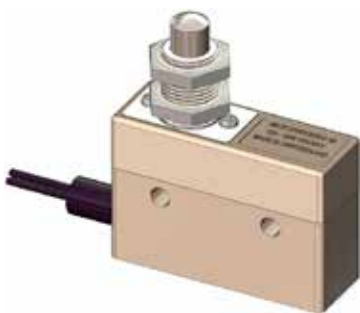
Actuating Force F_a max. (N)	6.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	17.4 ± 0.5
Operating Position P_a (mm)	16.5 ± 0.3
Over-Travel s_r min. (mm)	0.25
Differential Travel s_d max. (mm)	0.10

Type 1S29: Telescopic



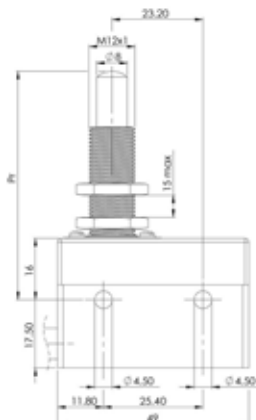
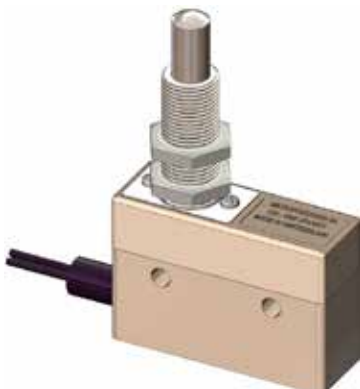
Actuating Force F_a max. (N)	6.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	29.3 ± 0.6
Operating Position P_a (mm)	28.4 ± 0.3
Over-Travel s_r min. (mm)	2.0
Differential Travel s_d max. (mm)	0.12

Type 1A: Telescopic with Short Thread



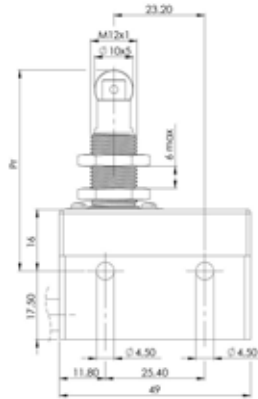
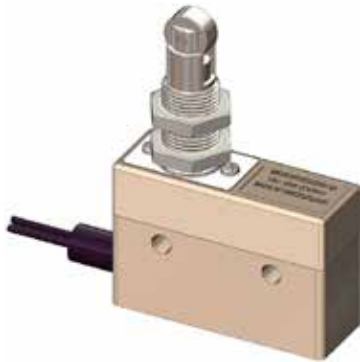
Actuating Force F_a max. (N)	6.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	39.1 ± 0.6
Operating Position P_a (mm)	38.4 ± 0.3
Over-Travel s_r min. (mm)	5.0
Differential Travel s_d max. (mm)	0.12

Type 1A58: Telescopic with Thread



Actuating Force F_a max. (N)	6.0
Release Force F_r min. (N)	2.5
Free Position P_r (mm)	58.0 ± 1.0
Operating Position P_a (mm)	57.2 ± 0.3
Over-Travel s_r min. (mm)	10.0
Differential Travel s_d max. (mm)	0.12

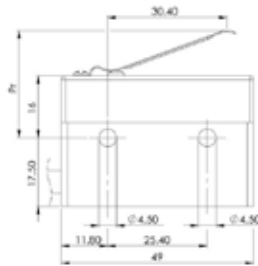
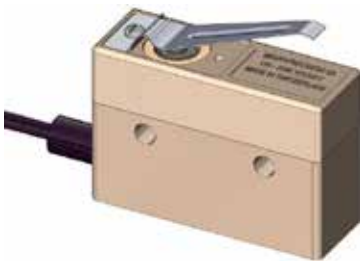
Type 1BL: Telescopic with Roller



Actuating Force Fa max. (N)	6.0
Release Force Fr min. (N)	2.5
Free Position Pr (mm)	51.4 ± 0.6
Operating Position Pa (mm)	50.7 ± 0.3
Over-Travel sr min. (mm)	5.0
Differential Travel sd max. (mm)	0.12

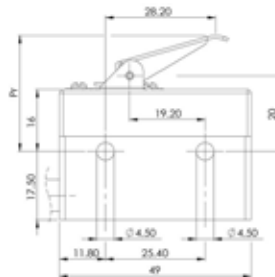
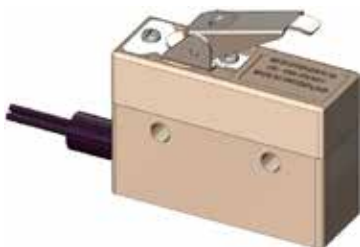
Optional: stainless steel roller, transvers roller

Type 2A: Simple Lever - Direct Action -



Actuating Force Fa max. (N)	3.5
Release Force Fr min. (N)	1.0
Free Position Pr (mm)	26.0 ± 2.0
Operating Position Pa (mm)	18.0 ± 2.0
Over-Travel sr min. (mm)	2.0
Differential Travel sd max. (mm)	0.80

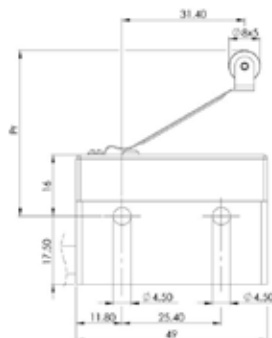
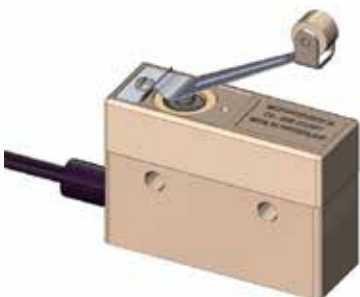
Type 3A: Simple Lever - Indirect Action -



Actuating Force Fa max. (N)	4.5
Release Force Fr min. (N)	1.2
Free Position Pr (mm)	31.1 ± 1.5
Operating Position Pa (mm)	29.0 ± 1.5
Over-Travel sr min. (mm)	3.5
Differential Travel sd max. (mm)	0.80

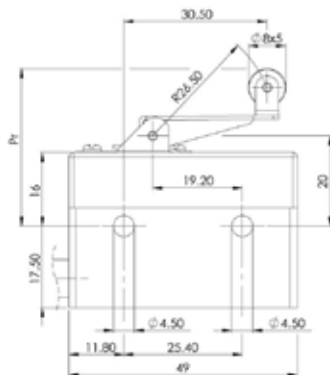
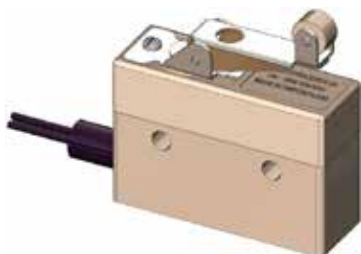
Optional: lever mounted on opposite side

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



Actuating Force Fa max. (N)	3.5
Release Force Fr min. (N)	1.0
Free Position Pr (mm)	39.0 ± 2.0
Operating Position Pa (mm)	30.0 ± 2.0
Over-Travel sr min. (mm)	2.0
Differential Travel sd max. (mm)	0.80

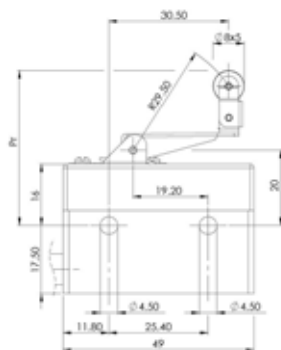
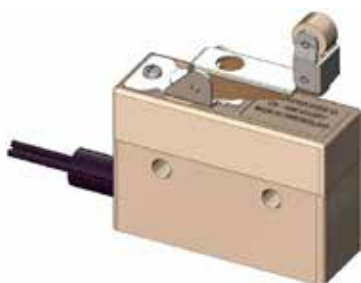
Type 5AL: Simple Lever with Roller - Indirect Action -



Actuating Force F_a max. (N)	4.5
Release Force F_r min. (N)	1.2
Free Position P_r (mm)	35.5 ± 1.5
Operating Position P_a (mm)	32.5 ± 1.5
Over-Travel s_r min. (mm)	3.5
Differential Travel s_d max. (mm)	0.90

Optional: lever mounted on opposite side, stainless steel roller, trans-vers roller

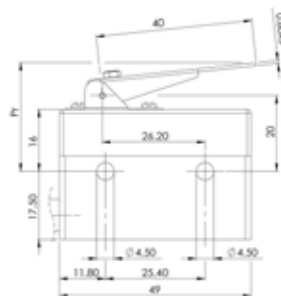
Type 6AL: Simple Lever with Bending Roller - Indirect Action -



Actuating Force F_a max. (N)	4.5
Release Force F_r min. (N)	1.2
Free Position P_r (mm)	41.6 ± 1.5
Operating Position P_a (mm)	38.6 ± 1.5
Over-Travel s_r min. (mm)	3.5
Differential Travel s_d max. (mm)	0.90

Optional: lever mounted on opposite side, stainless steel roller, trans-vers roller

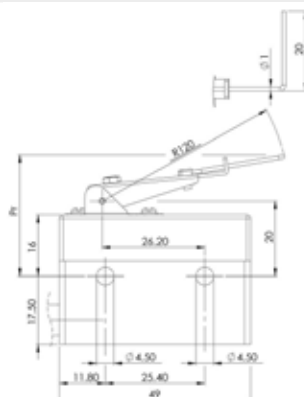
Type 7A40: Simple Adjustable Lever - Direct Action -



Actuating Force F_a max. (N)	0.6
Release Force F_r min. (N)	0.2
Free Position P_r (mm)	-
Operating Position P_a (mm)	Ajustable
Over-Travel s_r min. (mm)	-
Differential Travel s_d max. (mm)	1.20

Optional: lever mounted on opposite side

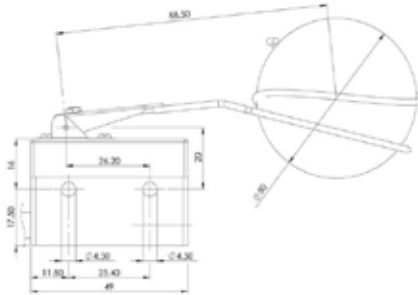
Type 7AC: Simple Adjustable Lever with Wire - Direct Action -



Actuating Force F_a max. (N)	0.2
Release Force F_r min. (N)	0.05
Free Position P_r (mm)	-
Operating Position P_a (mm)	Ajustable
Over-Travel s_r min. (mm)	-
Differential Travel s_d max. (mm)	5.00

Optional: lever mounted on opposite side

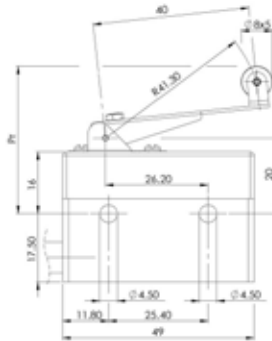
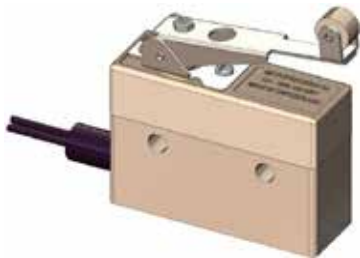
Type 7AF/63.5/50: Simple Lever with Floater - Direct Action -



Actuating Force F_a max. (N)	-
Release Force F_r min. (N)	-
Free Position P_r (mm)	-
Operating Position P_a (mm)	Ajustable
Over-Travel s_r min. (mm)	-
Differential Travel s_d max. (mm)	2.00

Optional: lever mounted on opposite side

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



Actuating Force F_a max. (N)	0.6
Release Force F_r min. (N)	0.2
Free Position P_r (mm)	-
Operating Position P_a (mm)	Ajustable
Over-Travel s_r min. (mm)	-
Differential Travel s_d max. (mm)	1.20

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

	Actuator Code	Circuit	Color
Direct Action	0 1S29 1A 1A58 1BL 2A 4AL 7A40 7AC 7AF/63.5/50 8AL40	MP210	PVC / PVCU: 1 / Brown - 2 / Black - 4 / Blue SI: 1 / Red - 2 / White - 4 / Blue PUR: 1 / Red - 2 / White - 4 / Blue
		MP220	PVC/ PVCU: 11/12 - Brown ; 23/24 - Blue SI: 11/12 - White ; 23/24 - Blue PUR: 11/12 - Brown ; 23/24 - Blue
Indirect Action	3A 5AL 6AL	MP210	PVC / PVCU: 1 / Brown - 2 / Black - 4 / Blue SI: 1 / Red - 2 / White - 4 / Blue PUR: 1 / Red - 2 / White - 4 / Blue
		MP220	PVC / PVCU: 11/12 - Brown ; 23/24 - Blue SI: 11/12 - White ; 23/24 - Blue PUR: 11/12 - Brown ; 23/24 - Blue

Series MP210/220

MP2 1 0 - 5AL / 3 100 / 200 SI

Circuit

- 1:** Single Break
- 2:** Double Break

Contact

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

Actuator

- 0:** Basic switch - Pin Button
- 1S29:** Telescopic with Thread
- 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
- 7AF/63.5/50:** Simple Lever with Floater
- 8AL40:** Simple Adjustable Lever with Roller

Number of conductors

- 3:** MP210 Single Break
- 4:** MP220 Double Break

Cross section

- 100:** 1.00 mm² - 400VAC / 10A (MP210) ; 250VAC / 10A (MP220)
- 150:** 1.50 mm² - 250VAC / 15A (MP210)

Cable length in centimeters (cm)

Cable material

- PVC:** Polyvinyl Chloride -20°C to +105°C
- PVCU:** Polyvinyl Chloride -20°C to +105°C (Approval UL)
- PUR:** Polyurethane -40°C to +90°C
- SI:** Silicone -40°C to +130°C

Series MP210/220