

MINIATURE MICROSWITCH (SPDT) ROBUST – SEALED – HIGH PRECISION

MP 300 SERIES

- High precision snap-action spring mechanism
- Electrical Ratings (resistive load): 1mA/4VDC - 6A/250VAC
- Reliable operation, even at extremely slow actuating speed
- Very low differential travel: down to 0,05 mm max
- Operating temperatures: -40°C to +130°C
- Degree of protection: IP67/IP69
- Choice of cable configurations
- Wide range of actuators

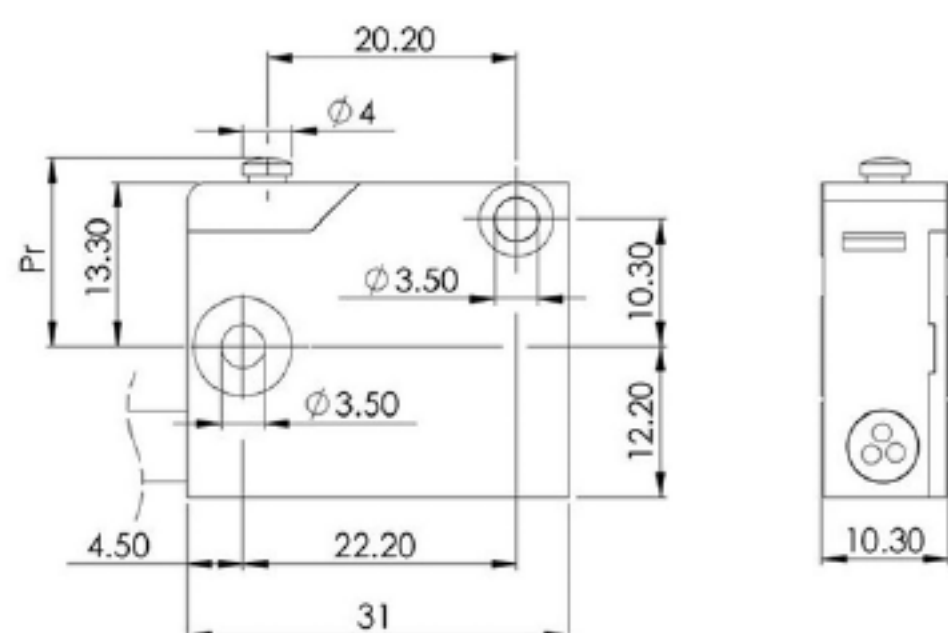


Main specifications			
Termination Options			
Cable materials : PVC/PUR/SI		up to 0.75 mm ² (6A)	
EN /UL Certifications			
Electrical Rating max - resistive load		6A 250 VAC	
Electrical Rating - resistive load - for gold plated terminals		1mA/4VDC to 100mA/24VDC	
Number of cycles certified		50 000	
Pollution degree		3	
Rated Impulse Withstand Voltage		2.5 kV	
Micro-disconnection		μ	
Electric shock class		II / U imp. 2500 V	
Mechanical characteristics			
Operating force max		4 N	
Release force min		1 N	
Free position		15.3 ± 0.3 mm	
Operating position		14.7 ± 0.2 mm	
Differential travel max		0.05 mm	
Overtravel min		0.2 mm	
Operating temperature		-40 °C to +130 °C	
Mechanical life		10 000 000 cycles	
B _{10d} (24VDC – 10mA, 100 cycles/min)		> 10 Mio	
Contact gap		Min 0.80 mm	
Additional specifications			
Conformity/ certification	EN/UL 61058-1-1	UL file E314075	   
Degree of protection		IP67 / IP69	
Housing & button		PBT + 30% fiberglass UL94-V0	
Dimensions		DIN 41 635, form A (31x24x10.3 mm) (0.7874 x 0.6299 x 0.2559 in)	
Moving blade		Beryllium copper	
Contacts		Silver alloy	
Terminals material		Brass	
Proof tracking index PTI - IEC 60112		300V	
Glow Wire Flammability Index - IEC 60695-2-12		960°C	
Glow Wire Ignitability Temperature - IEC 60695-2-13		750 °C	
Product adaptations			
➤ Special actuators: special shapes and lengths		➤ Other adaptations on demand	
➤ Special cable exit, length and material			
➤ Gold plated contacts			

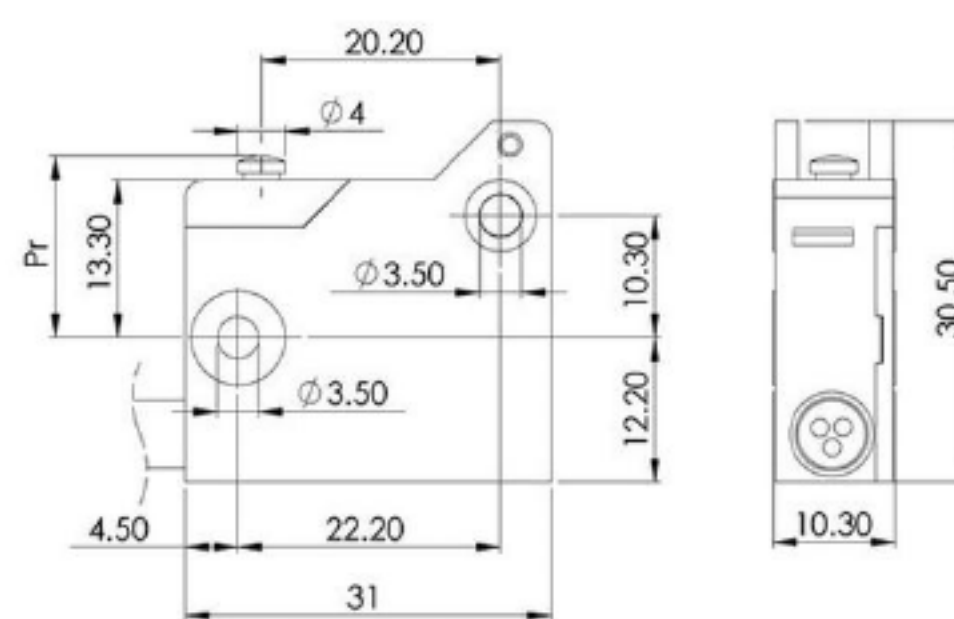
V0 – Design and specifications are subject to change for improvement without prior notice.

Housing

MP310

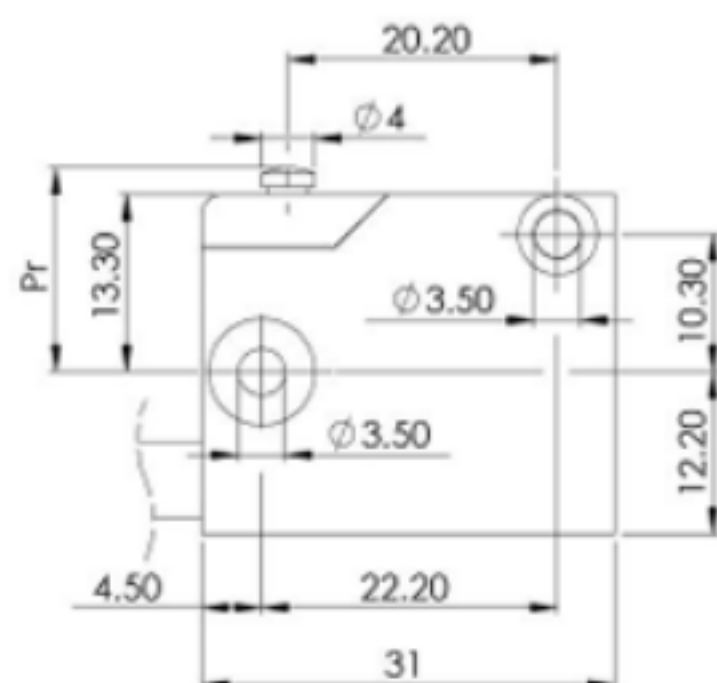


MP320



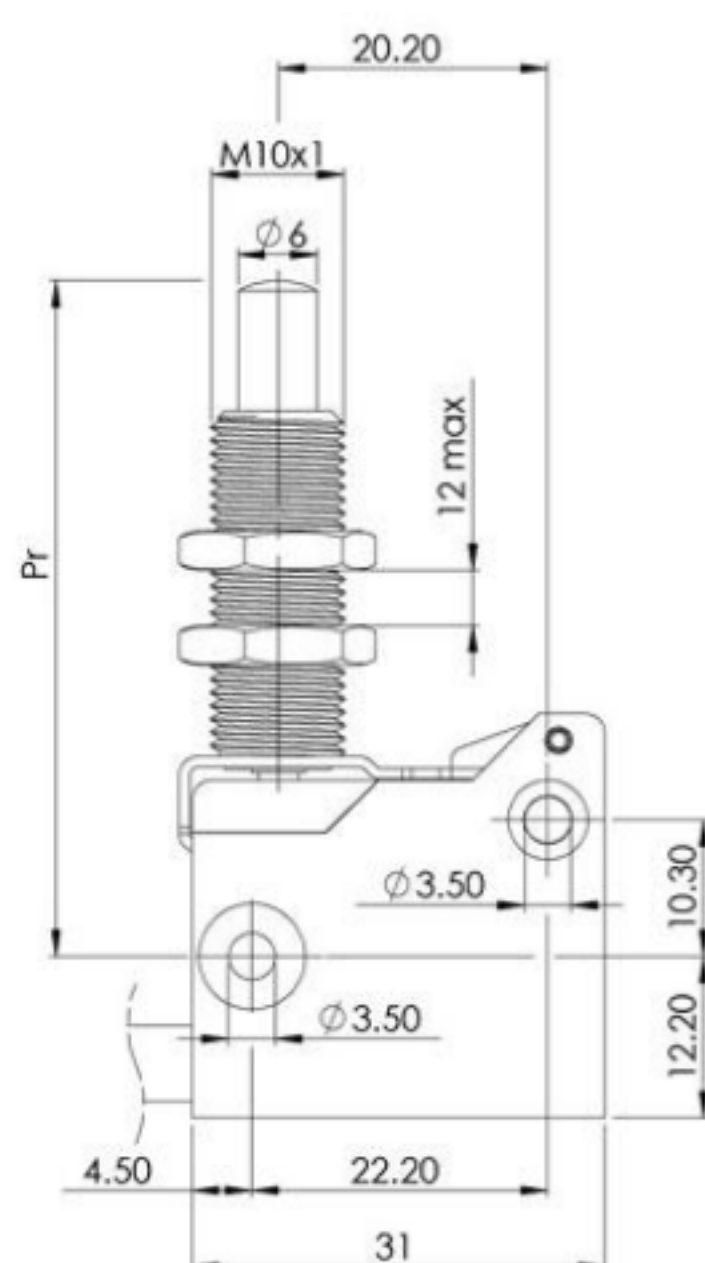
Actuator

Type **L00** : Pin button



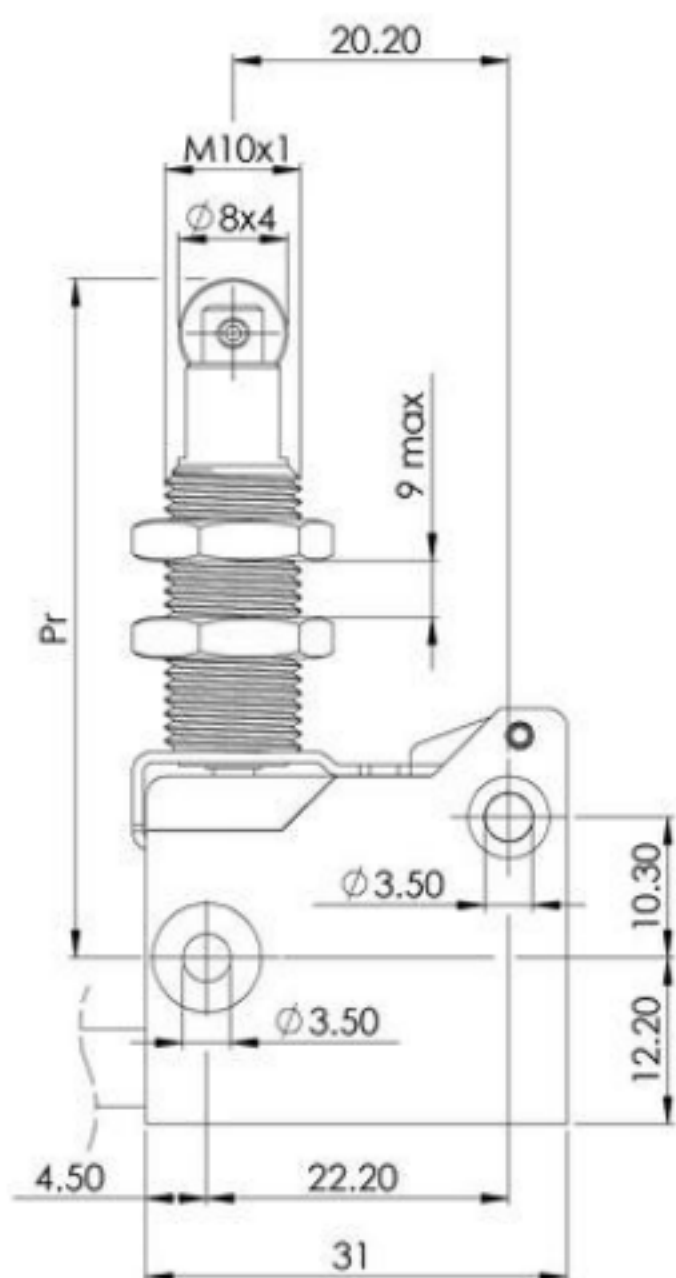
Actuating Force F_a max. (N)	: 4
Release Force F_r min (N)	: 1
Free Position P_r (mm)	: 15.3 ± 0.3
Operating Position P_a (mm)	: 14.7 ± 0.2
Over-travel s_r min. (mm)	: 0.2
Differential movement s_d max. (mm)	: 0.05

Type **T01** : Telescopic with thread 1M

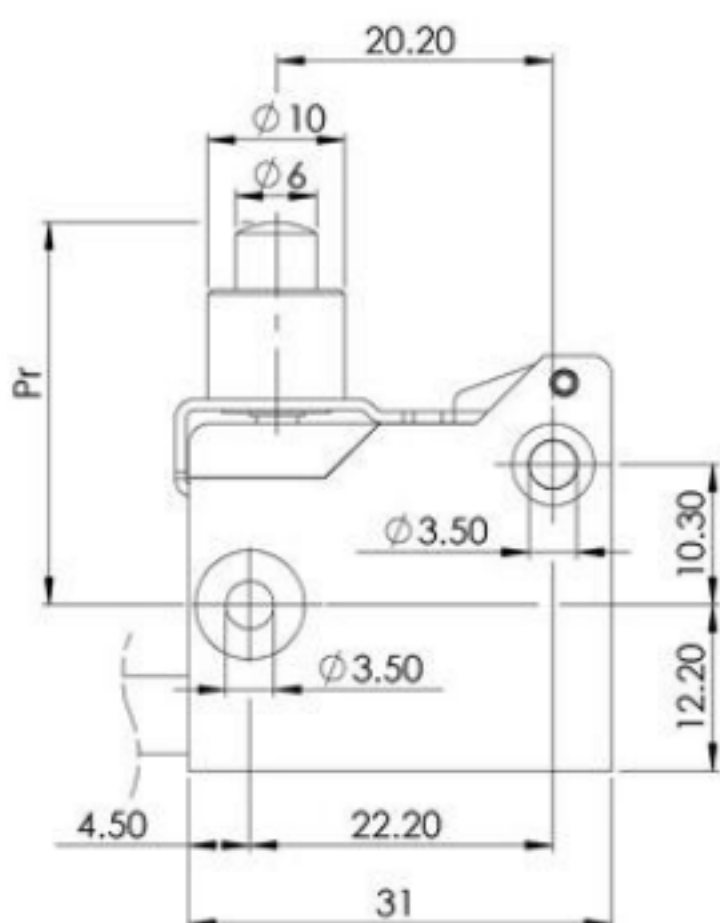


Actuating Force F_a max. (N)	: 4
Release Force F_r min (N)	: 1
Free Position P_r (mm)	: 27.7 ± 0.6
Operating Position P_a (mm)	: 27.2 ± 0.3
Over-travel s_r min. (mm)	: 2
Differential movement s_d max. (mm)	: 0.1

Type **T03** : Telescopic with stainless steel roller 1ML

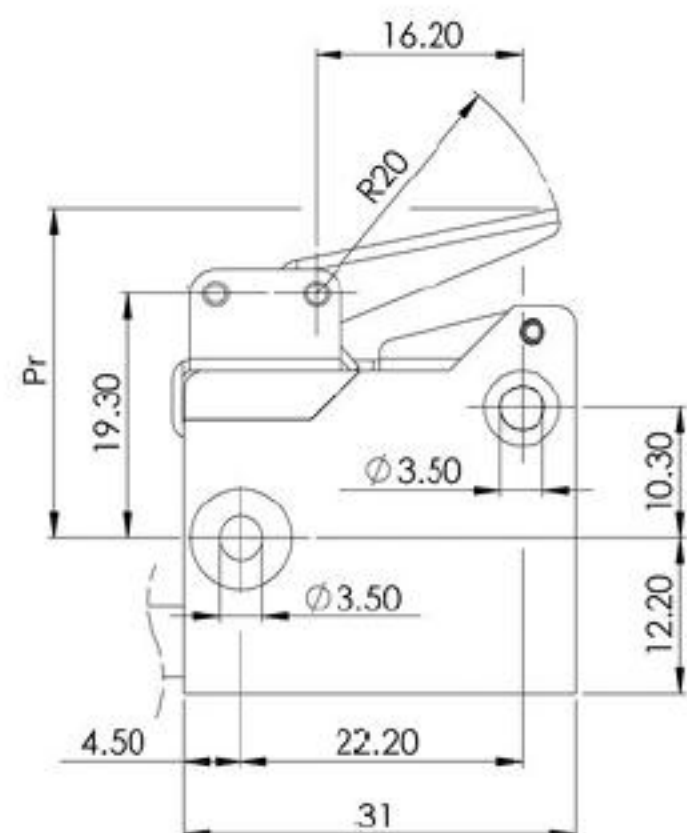


Actuating Force Fa max. (N)	: 4
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 49.8 ± 0.6
Operating Position Pa (mm)	: 48.3 ± 0.3
Over-travel sr min. (mm)	: 5
Differential movement sd max. (mm)	: 0.1

Type **T05** : Telescopic with thread 1MS27

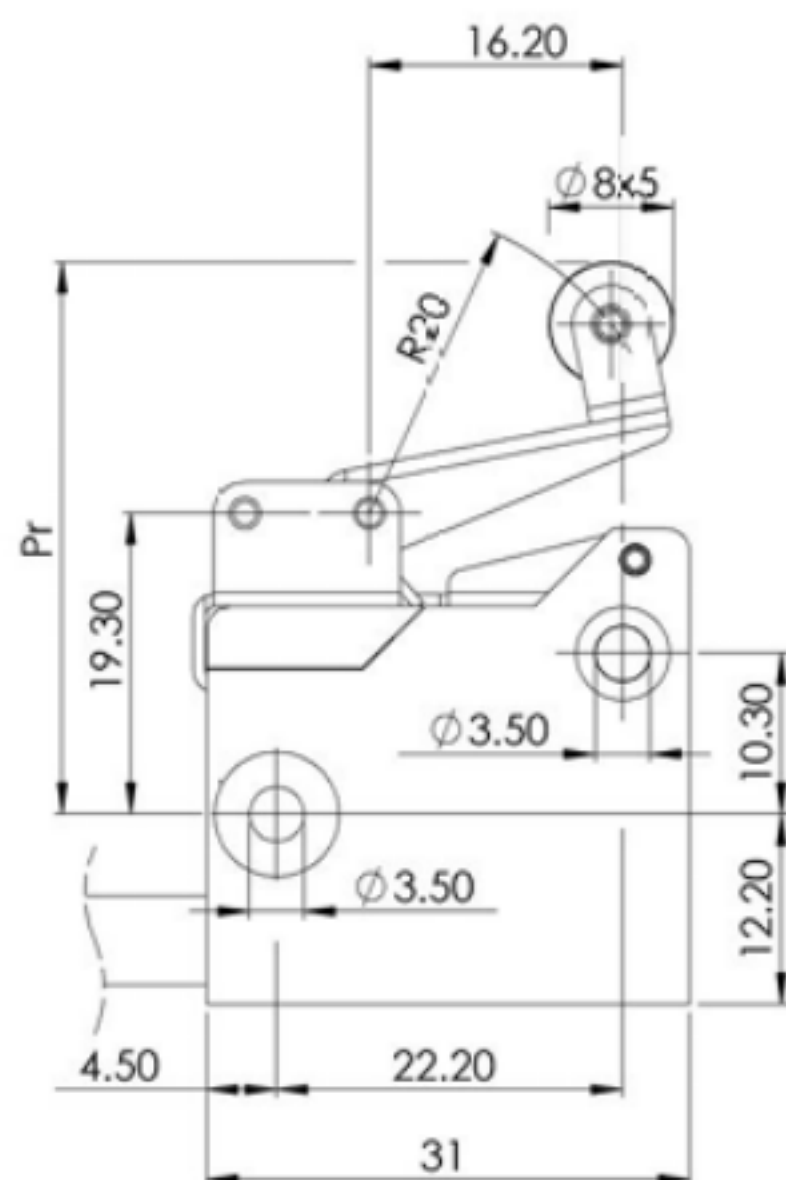
Actuating Force Fa max. (N)	: 4
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 27.7 ± 0.6
Operating Position Pa (mm)	: 27.2 ± 0.3
Over-travel sr min. (mm)	: 2
Differential movement sd max. (mm)	: 0.1

Type **A30** : Flat lever indirect action 3M - standard position



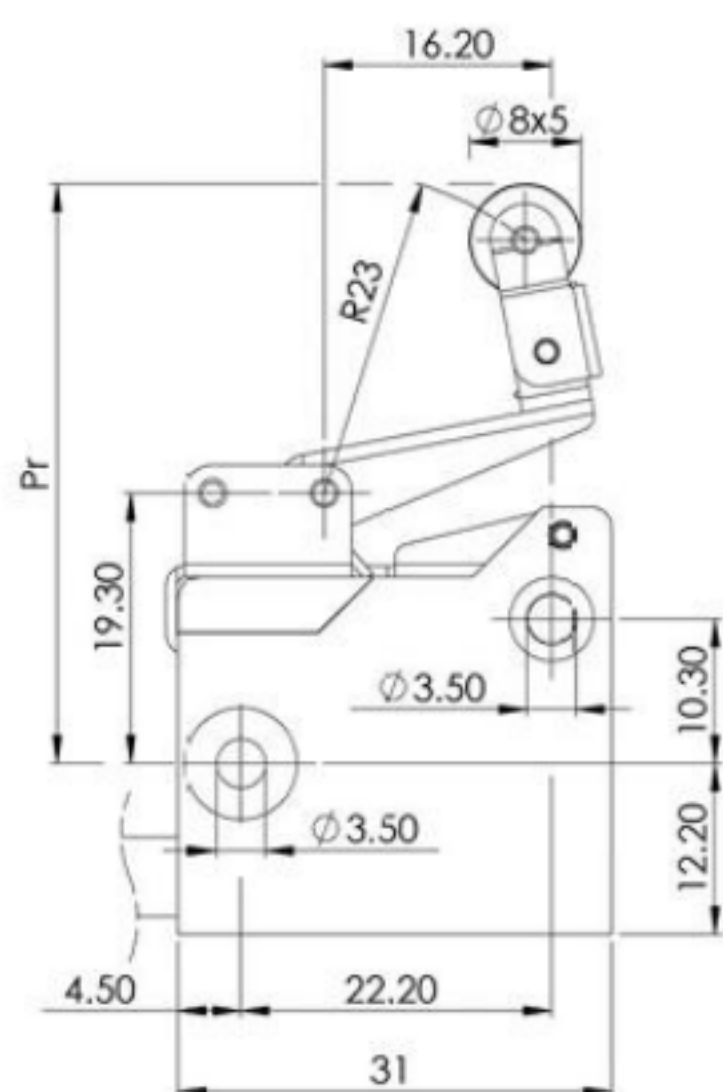
Actuating Force Fa max. (N)	: 3
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 26 ± 1
Operating Position Pa (mm)	: 24.2 ± 0.6
Over-travel sr min. (mm)	: 2.5
Differential movement sd max. (mm)	: 0.8

Type **A50** : Flat lever with plastic roller indirect action 5ML - standard position



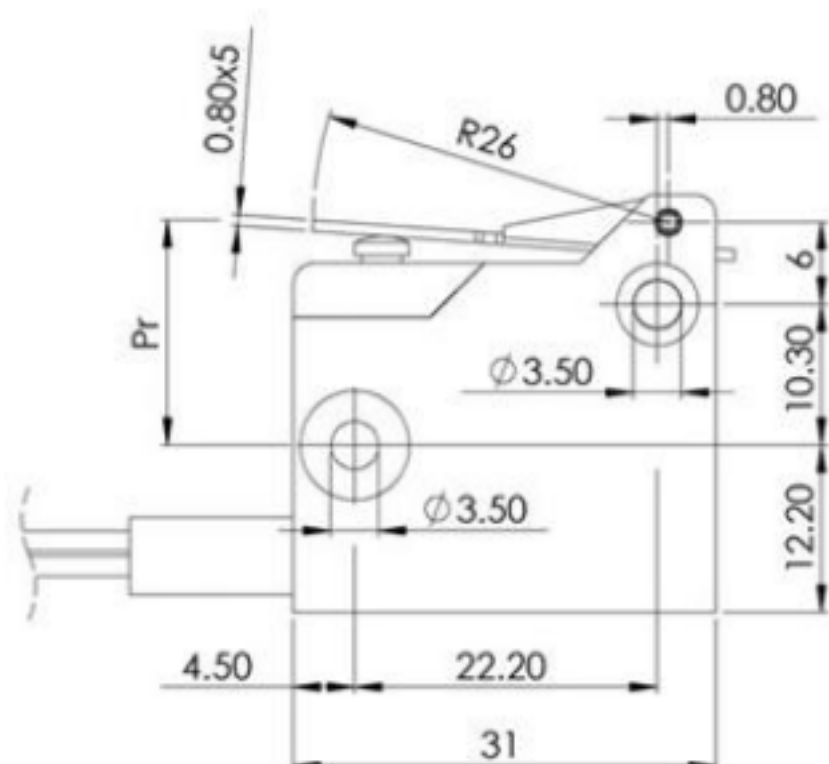
Actuating Force Fa max. (N)	: 3
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 35.6 ± 1
Operating Position Pa (mm)	: 34 ± 0.6
Over-travel sr min. (mm)	: 2.5
Differential movement sd max. (mm)	: 0.8

Type **A60** : Flat lever with tilting plastic roller indirect action 6ML - standard position



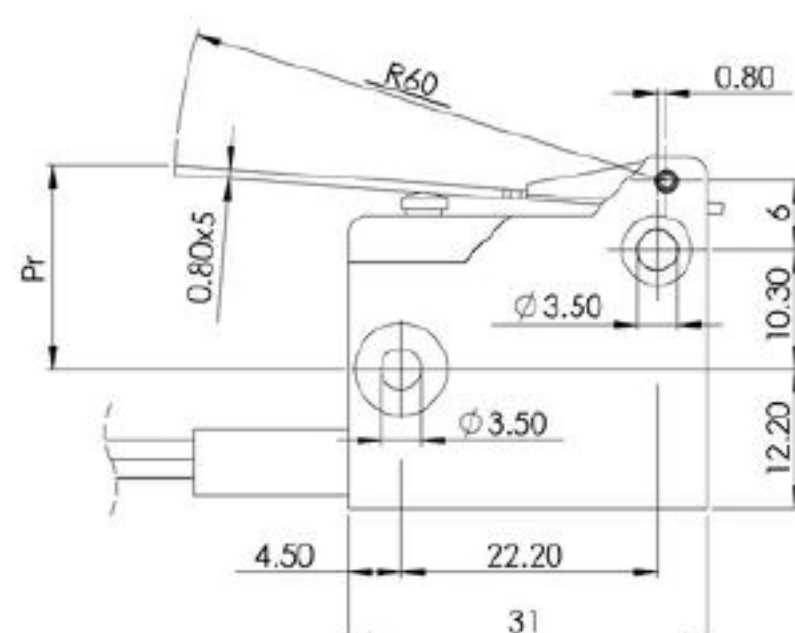
Actuating Force Fa max. (N)	: 3
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 41.5 ± 1
Operating Position Pa (mm)	: 39.8 ± 0.6
Over-travel sr min. (mm)	: 2.5
Differential movement sd max. (mm)	: 0.8

Type **A70** : Flat lever direct action 7M26



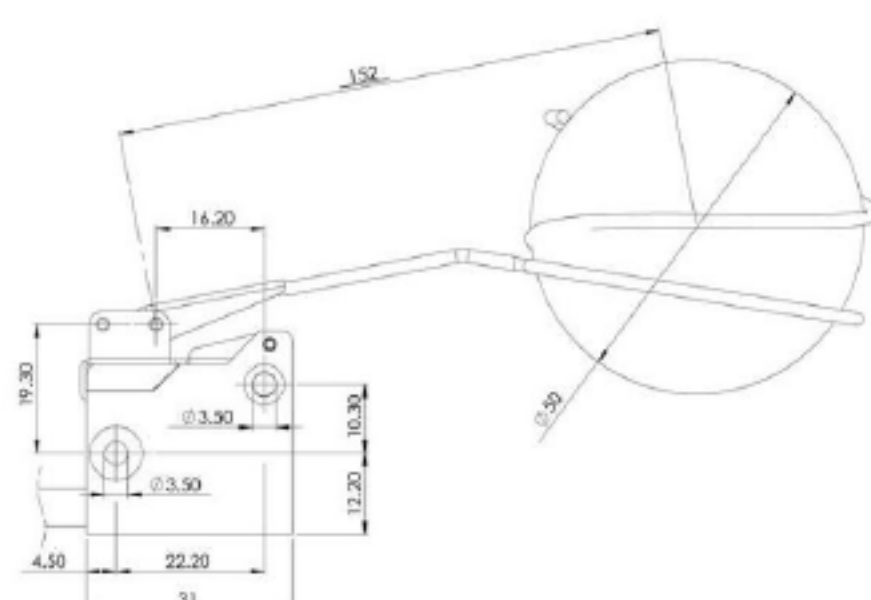
Actuating Force Fa max. (N)	: 4
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 17 ± 1
Operating Position Pa (mm)	: 16 ± 0.3
Over-travel sr min. (mm)	: 0.2
Differential movement sd max. (mm)	: 0.1

Type A71 : Flat lever direct action 7M



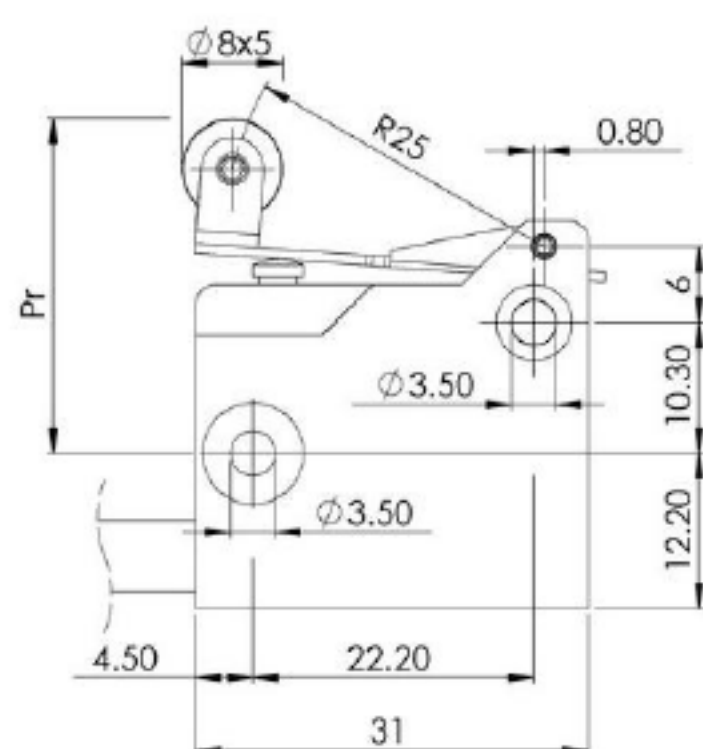
Actuating Force Fa max. (N)	: 1.3
Release Force Fr min (N)	: 0.3
Free Position Pr (mm)	: 19 ± 1
Operating Position Pa (mm)	: 16.5 ± 0.8
Over-travel sr min. (mm)	: 0.5
Differential movement sd max. (mm)	: 0.8

Type A75 : Flat lever with floater indirect action 7MAF/127/50



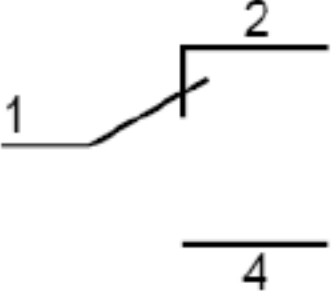
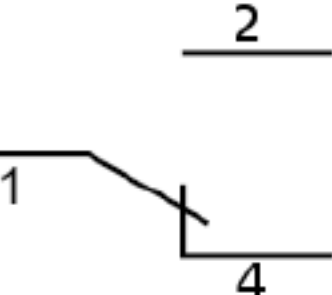
Actuating Force Fa max. (N)	: -
Release Force Fr min (N)	: -
Free Position Pr (mm)	: -
Operating Position Pa (mm)	: -
Over-travel sr min. (mm)	: -
Differential movement sd max. (mm)	: 2

Type A80 : Flat lever with plastic roller direct action 8ML25



Actuating Force Fa max. (N)	: 4
Release Force Fr min (N)	: 1
Free Position Pr (mm)	: 26.5 ± 1
Operating Position Pa (mm)	: 25.7 ± 0.3
Over-travel sr min. (mm)	: 0.2
Differential movement sd max. (mm)	: 0.1

Standard Cable			
	Approval	Temperature	Codification
PVC	EN/UL certified	-20°C to 105°C	MP3...XXX P
Polyurethane	EN/UL certified	-40°C to 90°C	MP3...XXX U
Silicon	EN certified	-40°C to 130°C	MP3...XXX S

Standard Wiring Diagram			
	Code Actuator	Diagram	Wire Color
Direct action	L00 T01 T03 T05 A70 A71 A80		1 – Brown 2 – Black 4 - Blue
	A30 A50 A60 A75		

Ordering Information

MP3 X X XXX XXXX

Housing

- 1 : No actuator - pin button only - 3.5mm Fastening
- 2 : With actuator (optional) - 3.5mm Fastening

Contact

- 0 : Silver Contact 6A
- 1 : Gold contact 24VDC 0,1A

Actuator

- L00 : Pin button
- T01 : Telescopic with thread 1M
- T03 : Telescopic with stainless steel roller 1ML
- T05 : Telescopic with thread 1MS27
- A30 : Flat lever indirect action 3M - standard position
- A50 : Flat lever with plastic roller indirect action 5ML - standard position
- A60 : Flat lever with tilting plastic roller indirect action 6ML - standard position
- A70 : Flat lever direct action 7M26
- A71 : Flat lever direct action 7M
- A75 : Flat lever with floater indirect action 7MAF/127/50
- A80 : Flat lever with plastic roller direct action 8ML25

Termination with cable

- C : Cable standard exit
- D : Cable opposite exit
- F : Cable underside exit

Cable length

- 10 : 1 m
- 20 : 2 m
- 40 : 4 m

Cable material

- P : PVC
- U : PUR
- S : Silicon