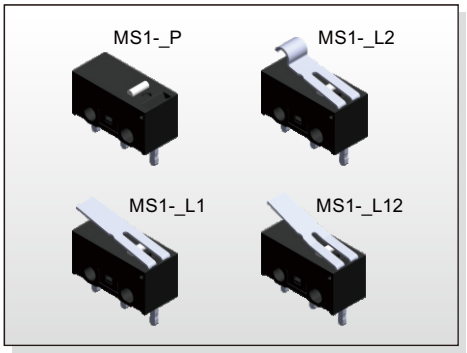
MS1 SERIES



FEATURES

※Miniature microswitch conforming to UL.
※PCB terminal models are resistant to flux.
※Highly reliable with long operating life.

APPLICATION

※Mouse, Projector
※Communication equipments
※Security
※Electronic equipments
※Household appliances

SPECIFICATION

Contact Rating	0.1A at 30V DC	MS1-01
	3A at 125V AC/1.5A at 250V AC	MS1-3
Mechanical Durability	1,000,000 cycles min	MS1-01
	500,000 cycles min	MS1-3
Electrical Durability	30,000 cycles min	MS1-01
	6,000 cycles min	MS1-3
Contact Resistance	100mΩ (Initial Value)	
Insulation Resistance	100MΩ	
Dielectric Strength	Between terminals of same polarity "AC 600V 1min"	
	Between current-carrying metal parts and ground "AC 1500V 1min"	
	Between each terminal and non-current-carrying metal part "AC 1500V 1min"	
Vibration Resistance	10~55HZ Double amplitude: 1.5mm (For Pin Plunger)	
Shock Resistance	300m/s^2 (For Pin Plunger)	
Operating Speed	1~500mm/s (Without Load)	
Operating Frequency	200/min (Without Load)	
Operating Temp.	-25°C ~ +75°C	

HOW TO ORDER

M S 1 - □ □ □ □ □ □ □

Rating:
01:0.1A at 30V DC
3:3A at 125V AC
1.5A at 250V AC

Actuator:
P :Pin plunger
L1 :Hinge lever
L2 :Simulated roller lever
L12:Bended lever

Operating Force(OF)
N:0.88N
F:0.74N

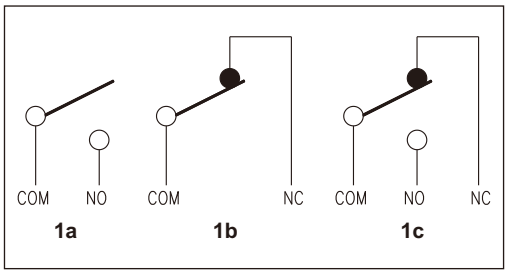
Contact Form:
-1:1c (Split contact)
-2:1b (Normally closed)
-3:1a (Normally open)

Terminal Type:
D:PCB terminal

Material:
S:PPS
Q:PBT Halogen free

Plating:
(Au):Gold plating
(Ag):Silver plating

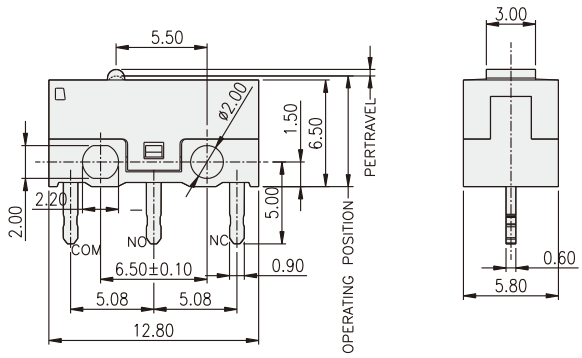
CIRCUIT



TYPE

Actuator	Terminal Type	Silver Contact	Gold Contact	Silver Alloy Contact
Pin Plunger	PCB Terminal	MS1-01PF-1D(Ag)	MS1-01PF-1D(Au)	MS1-3PN-1D(Ag)
		MS1-01PF-2D(Ag)	MS1-01PF-2D(Au)	MS1-3PN-2D(Ag)
		MS1-01PF-3D(Ag)	MS1-01PF-3D(Au)	MS1-3PN-3D(Ag)
Hinge Lever	PCB Terminal	MS1-01L1F-1D(Ag)	MS1-01L1F-1D(Au)	MS1-3L1N-1D(Ag)
		MS1-01L1F-2D(Ag)	MS1-01L1F-2D(Au)	MS1-3L1N-2D(Ag)
		MS1-01L1F-3D(Ag)	MS1-01L1F-3D(Au)	MS1-3L1N-3D(Ag)
Bended Lever	PCB Terminal	MS1-01L12F-1D(Ag)	MS1-01L12F-1D(Au)	MS1-3L12N-1D(Ag)
		MS1-01L12F-2D(Ag)	MS1-01L12F-2D(Au)	MS1-3L12N-2D(Ag)
		MS1-01L12F-3D(Ag)	MS1-01L12F-3D(Au)	MS1-3L12N-3D(Ag)
Simulated Roller Lever	PCB Terminal	MS1-01L2F-1D(Ag)	MS1-01L2F-1D(Au)	MS1-3L2N-1D(Ag)
		MS1-01L2F-2D(Ag)	MS1-01L2F-2D(Au)	MS1-3L2N-2D(Ag)
		MS1-01L2F-3D(Ag)	MS1-01L2F-3D(Au)	MS1-3L2N-3D(Ag)

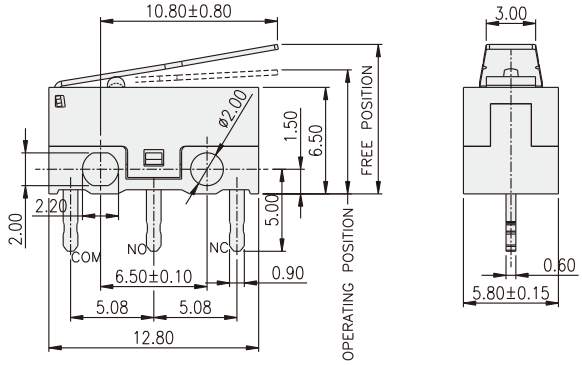
MS1-□□P□-□D



OPERATING CHARACTERISTICS

ITEM	SPEC.
OPERATING FORCE	MS1-01 0.75N MAX MS1-3 0.88N MAX
RELEASE FORCE	MS1-01 0.02N MIN MS1-3 0.05N MIN
PRETRAVEL	0.50mm MAX.
OVERTRAVEL	0.20mm MIN.
MOVEMENT DIFFERENTIAL	0.20mm MAX.
OPERATING POSITION	6.9±0.3 mm

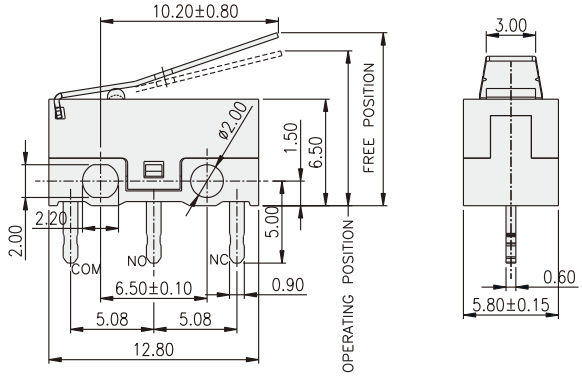
MS1-□□L1□-□D



OPERATING CHARACTERISTICS

ITEM	SPEC.
OPERATING FORCE	MS1-01 0.25N MAX MS1-3 0.39N MAX
RELEASE FORCE	0.02N MIN.
OVERTRAVEL	0.55mm MIN.
MOVEMENT DIFFERENTIAL	0.50mm MAX.
OPERATING POSITION	8.0±1.5mm
FREE POSITION	MS1-01 11.5mm MAX MS1-3 11mm MAX

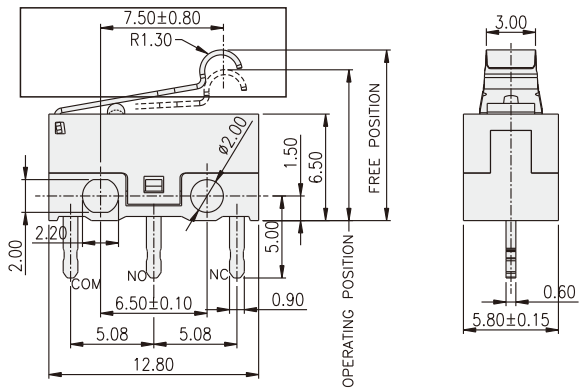
MS1-□□L12□-□D



OPERATING CHARACTERISTICS

ITEM	SPEC.
OPERATING FORCE	0.25N MAX.
RELEASE FORCE	0.02N MIN.
OVERTRAVEL	0.55mm MIN.
MOVEMENT DIFFERENTIAL	0.50mm MAX.
OPERATING POSITION	9.6±0.8mm
FREE POSITION	11.0±0.8mm

MS1-□□L2□-□D



OPERATING CHARACTERISTICS

ITEM	SPEC.
OPERATING FORCE	0.39N MAX.
RELEASE FORCE	0.02N MIN.
OVERTRAVEL	0.50mm MIN.
MOVEMENT DIFFERENTIAL	0.45mm MAX.
OPERATING POSITION	9.5±1.2mm
FREE POSITION	14.0mm MAX.