



Industrial & Electrical Components

Draw Spring Inner
Micro Switch

Part No.

NL-10Z
NL-5Z



- Economical, subminiature, long service life
- Free from overtravel restrictions, easy setting
- Standard operating force, low force force
- RoHS Compliant

ORDERING INFORMATION

NL- - -
 ① ② ③ ④ ⑤ ⑥

1. Ratings

5: 5A at 250VAC
10: 10A at 250VAC

2. Actuator

None: Pin plunger
Z: Hinge lever
W: Simulated roller lever
G: Hinge roller lever

3. Maximum Operating Force

None: 1.1N
F1:1.9N
F2:2.7N
F3:3.6N

4. Contact Form

None: SPDT
2: SPST-NC
3: SPST-NO

5. Terminals

None: Solder terminals
T: Quick-connect terminal (#110)
D: PCB terminals (Even pitch)
D1: Left angle PCB terminals
D2: Right angle PCB terminals

6. Shell Material

None: PMC
P: PBT

SAFETY APPROVAL

UL61058

CSA-C22.2 No.61058-1

Rated voltage	Rated current
AC125V	5A
AC250V	5A

CQC

GB15092.1-2003

Rated voltage	SL- J10	SL- J5
AC125V	10A	5(2)A
AC250V	10A	5(2)A

ENEC (EN61058-1)

Rated voltage	SL- J1	SL- J5	SL- J10
AC125V	0.5A	5A	10A
AC250V	0.5A	5A	10A 5(2)A

TECHNICAL DATA

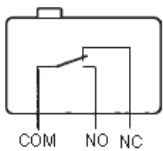
Item Type		NL-10 / NL-5
Allowable operating speed		0.1~1000 mm/s or 0.5~1000 mm/s
Operating frequency	Mechanical	Max.: 200 times/min
	Electrical	Max.: 30 times/min
Insulation resistance		Min.: 100MΩ (500VDC)
Contact resistance		50mΩ
Dielectric strength	BTW same polarity terminals	AC1000V 50/ 60Hz 1min
	BTW current-carrying parts	AC1500V 50/ 60Hz 1min
	BTW terminal & metal parts	AC1500V 50/ 60Hz 1min
Vibration resistance	Malfunction	10~55Hz amplitude 1.5mm
Shock resistance	Durable	1000 m/s
	Malfunction	300 m/s
Expected life	Mechanical life	Min.: 1x10 ⁶ (60 times/min)
	Electrical life	Min.: 1x10 ⁵ (30 times/min)
Protection degree		IP40
Ambient operation temperature		0°C~+125°C
Ambient humidity		85%RH
Weight		Approx. 1.6g (pin plunger type)

CONTACT SPECIFICATION

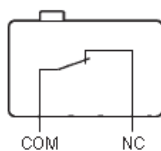
Item		NL-10Z	NL-5Z
Specification		Rivet	
Material		Silver alloy	
Gap (Standard value)		0.5mm	
Inrush current	NC	20A max.	20A max.
	NO	15A max.	10SA max.
Minimum applicable load		160mA at 5VDC	

CONTACT FORM

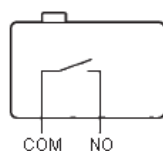
SPDT



SPST-NC

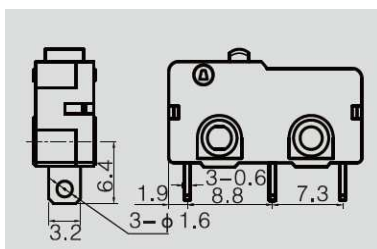


SPST-NO

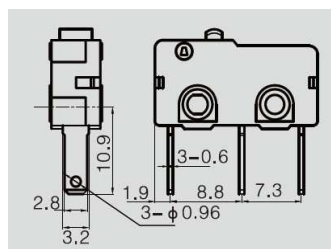


Terminal

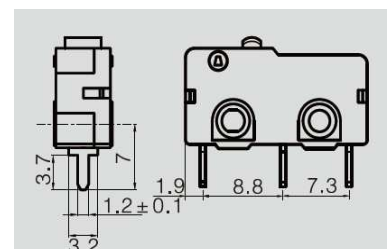
Solder Terminals



Quick-connect Terminals

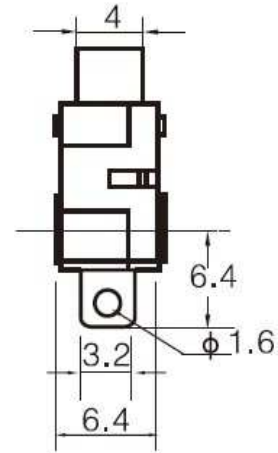
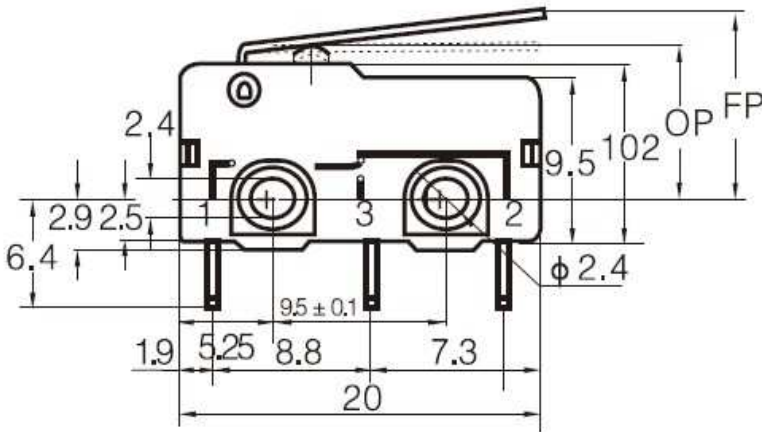


PCB Terminals



DIMENSIONS (mm)

Hinge Lever Models

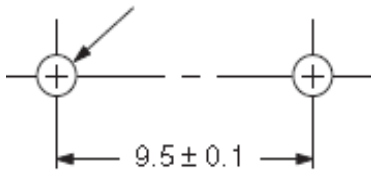


OPERATING CHARACTERISTICS

Operating performance	NL-10Z	NL-10ZF1	NL-10ZF2	NL-10ZF3
	NL-5Z	NL-5ZF1	NL-5ZF2	NL-5ZF3
OF max.	0.5	0.7	0.9	1.2
RF min.	0.02	0.06	0.1	0.1
PT max.	1.0mm	1.0mm	1.0mm	1.0mm
OT min.	1.0mm	1.0mm	1.0mm	1.0mm
MD max.	12mm			
OP	9.6±1.0mm			

MOUNTING HOLES

Two, 2.4-dia. mounting holes or M2.3 screw holes



All switches may be panel mounted using M2.3 mounting screws with plane washers or spring washers to securely mount the switch.

Tighten the screws to a torque of 0.23 to 0.26 N-m.