Non-Contact Positioning Switches

Overview

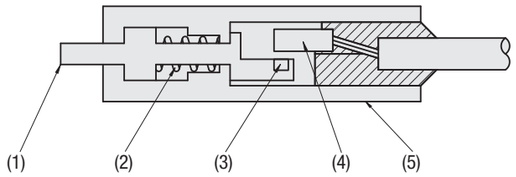
Feature

– The contact type switch can detect objects in given positions regardless of material and color.
– Non contact structure utilizing the magnet detection IC (Hall effect element).
– Able to detect with low contact force.

Basic Structure

When the contact shaft strokes, the magnet moves and the hall effect element outputs a signal.

(1) Contact Part
(2) Spring
(3) Magnet
(4) Hall Effect Element IC
(5) Housing



Specifications

Stroke	1.5 / 3 / 6
Repeatability	0.02 or less
Contact Mechanism	NO (Normally Open)
Hysteresis	0.1 or Less
Service Life*	10 Million Times or More
Frequency Response	1 msec. or Less
25 mA or Less	NPN Open Collector Without LED: MAX 15 mA With LED: MAX 12 mA

* Subject to the following conditions

Ratings & Environmental Resistance

Power Supply Voltage	DC5–24V
Current Consumption	10 mA or Less
Operating Temp.	0–60°
Dielectric Strength	10MΩ (DC250V Based on Megohm-meter)
Withstand Voltage	AC500V 50/60 Hz, 1 min. between each terminal and case
Vibration Resistance	10–55 Hz, Stroke of 1.5 mm in Respective X, Y, Z Direction

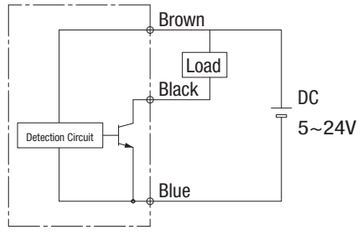
Endurance Test Conditions

Operating Temp.	25°C
Vibrations	Not provided
Contact Angle	Vertical (Without declination)
Operation Frequency	1 time/sec.

Do not use this product as a detection device for human body protection.
(For human body protection, use products compliant with the local laws and regulations such as OSHA, ANSI, and IEC)

Schematics

(Connected with sequencer, etc.)



NPN to PNP

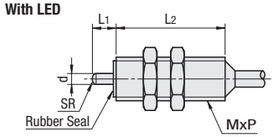
Contact Positioning Switches

Bolt / Flat

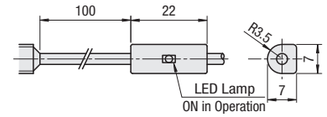
Contact Positioning Switches – Bolt (IP67)

RoHS 10

MSNCB
MSNCBD With LED



MSNC
MSNCD With LED



Material		Cable	AAccessories
Contact Part	Thread		
303 Stainless Steel	303 Stainless Steel	Cable 1 m, 3-Conductors Ø2.8, Oil Resistant Min. Bending Radius R7	Hex Nut 2 pcs. (M6 Thickness 2, Hex Socket 7 M8 Thickness 2.5, Hex Socket 10)

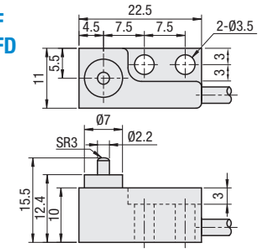
Bolt

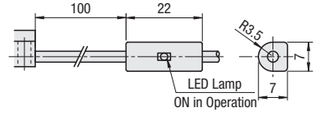
Part Number		MxP (Fine)	Operating Point	Contact Force N	L_1	L_2	d	SR	Mass (g)
Type	Stroke								
MSNCB MSNCBD	1.2	M6 x 0.5	0.5 from Tip (Repeatability 0.02)	0.3	2.4	18.5	1.4	1	14
MSNC MSNCD	1.5	M8 x 0.75		0.4	4	20	2	2.5	15
	3			0.7	5	30	2.6	3	22

Contact Positioning Switches – Flat (IP65)

RoHS 10

MSNCF
MSNCFD
With LED





Material		Cable
Contact Part	Case	
303 Stainless Steel	Zinc Alloy	Cable 1 m, 3-Conductors Ø2.8, Oil Resistant Min. Bending Radius R7

Flat

Part Number		Operating Point	Contact Force N	Mass (g)
Type	Stroke			
MSNCF MSNCFD	3	0.5 from Tip (Repeatability 0.02)	0.5	17