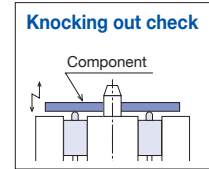




#### Features

■ **Two functions in one, a touch switch built into the spring plunger.**

Reduces the number of components and design man-hours, allowing miniaturization of the machine.



■ **Spring plunger with switch is dedicated for checking the ejection, with large movements till activation and little movement after activation.**

Please use CS-Touch Switch (refer to P4-3) for ordinary position detection without the ejection checking function.

(Large "clearance" in action after activation makes signal setting easier, no possibility of over-pressing damage.)

#### Standard specification

unit: mm

Product name	Size	with LED
SP060A	M6×1	SP060A -L
SP080A	M8×1.25	SP080A -L

◎ Do not use the switch end as stopper.  
The end surface is not hardened.

-L : LED indicator (120mm from the sensor)

#### Common specification

unit: mm

Switch structure	Dry contact
Output mode	A: Normally open
Pretravel	2.2
Stroke	3
Repeatability	Both On→Off, Off→On/ 0.01 (range) (At operating speed 50~200mm/min)*
Movement differential	0
Contact life time (Spring)	3 million
Protective structure	IP40
Contact force	8N (max. 11N)
Case material	SUS 303
Contacting part material	SUS HRC50-55

\*Operating speed slower than 10mm/min is not recommended.

Cable (Refer to P7-5)	Standard length 2m Oil resistant $\phi$ 2.8 / 2 cores, Tensile strength 30N, minimum bending R7
Operating temperature range	0°C-80°C (Ice-free)
Temperature drift	0 (because of no amplifier)
Oscillation	10-55Hz total amplitude 1.5 for X,Y,Z each direction
Impact	300m/s <sup>2</sup> for X,Y,Z each direction
Contact rating (Refer to P14-3)	DC5V-DC24V Steady current : 10 mA or less (rush current: 20 mA or less)  <b>When using the switch with LED, limit the current below 10mA.</b>
Standard accessory	Two fixing nuts and a toothed washer

◎ **The following options are available.**

·LED indicator

#### Circuit diagram

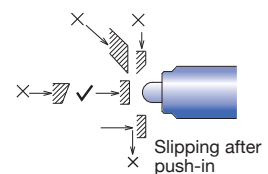
without LED	with LED
Normally open (NO) Brown Blue	Normally open (NO) Brown+ Blue- LED Normally Off

Electrical specification / circuit diagram. (Refer to P7-2)

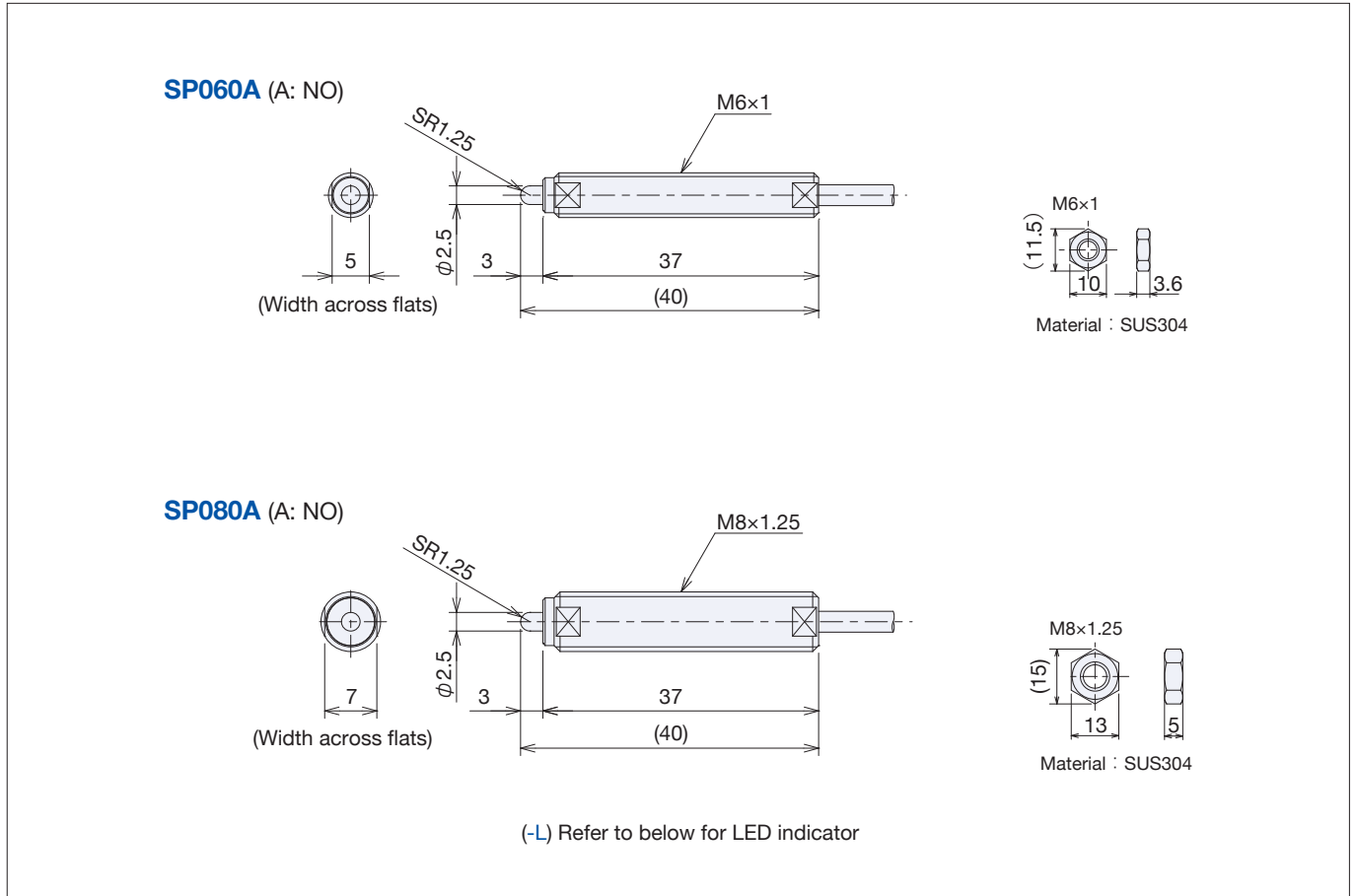
**When using the switches with LED option, limit the current below 10mA.** (Refer to P14-3 "Confirmation of switch operation")

#### How to use

Make contact with detected object at right angle.  
(within deflection angle  $\pm 3^\circ$ )



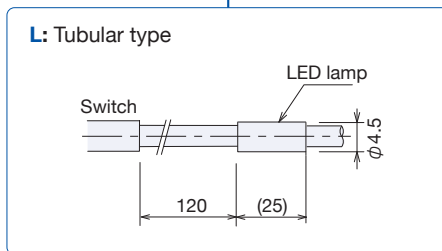
Outer dimension



Options

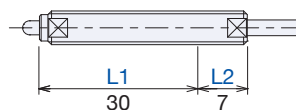
Product name	LED indicator
SP060A SP080A	<b>Blank:</b> No LED <b>L:</b> 120mm from the switch

▶ e.g.) SP060A-L



Tightening torque for case screws and nuts

Applicable models	Tightening torque	
	L1	L2
SP060A	5N·m	2.5N·m
SP080A	10N·m	5N·m



Caution

Use the lower torque (i.e. torque corresponding to L2) while tightening the bolt between the lengths L1 and L2 in the above picture. Please make sure to use a locknut if the bolt is likely to shift in position due to the vibrational impacts.