

■ Checklist Before Inquiry

When specifying Position Sensors, please take advantage of our standard products for better price and delivery.
Please provide the following items before ordering.

Checklist					
Common	C-1	Inquiry purpose		New use, Modification, Others()	
	C-2	Modification	Current supplier		
			Current part No.		
			Purpose		
	C-3	Application	Equipment		
			Environment	Indoor/Outdoor use, Stationary/Portable set, High humidity, SO ₂ , NaCl	
			Temperature	(°C) to (°C)	
	C-4	Mounting	Method	Manual, Automatic	
C-5	Soldering	Method	Manual soldering, Flow soldering		
		Conditions	Temp. (°C), Time (s), Dipping times()		
Electrical	E-1	Conditions	Current	ac, dc	
	E-2	Resistance	Total value/Tolerance	(Ω) / ±20 %, ±30 %, Others (± %)	
	E-3	Taper	Taper	B	
			Linearity	1 %, 0.5 %, Others (± %)	
			Hysteresis	(%)	
E-4	Other requirements				
Shapes/ Dimensions	M-1	Shape	Type	Rotary	Slide
			Size	10.0 mm, 15 mm	8.0 mm, 9.0 mm
	M-2	Shaft	Shape		
	M-3	Mounting	Type	PWB Soldering, Screw	
Others	M-4	Terminals	Type	PWB	
	L-1	Special requirements for endurance			
L-2	Other questionnaires				

Notes:

- When you specify custom types (custom-made), new tooling and jigs, and/or equipment may be required. It will be necessary to confirm your estimates of quantity and development schedule as accurately as possible.
- Please inform us if you designate your own part number.

* Previous notations for potentiometer shape "Stand-up type" (Shaft is parallel to PWB.) and "Lay-down type" (Shaft is vertical to PWB.) – have been changed in this edition to "Horizontal type" or "Side-adjust type" (Shaft or knob is parallel to PWB.) and "Vertical type" or "Top-adjust type" (Shaft or knob is vertical to PWB.).

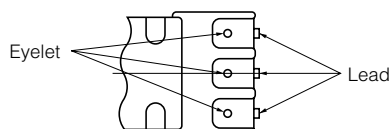
■ Application Notes

When using our Position Sensors, please observe the following cautionary items to prevent dangerous accidents and deterioration of device performance.

1. Prohibited items and notes in design stage

1. Soldering conditions

- 1) Soldering must be performed to the lead of the terminals. Do not solder on the center (eyelet part) of the terminals.



- 2) Perform soldering only one time. When a product for which soldering has been completed is removed from PWB by soldering iron, etc., the product shall not be used again.
- 3) Do not wash a position sensor after soldering because flux may invade the position sensor, resulting in contact failure. Avoid use of jumper cables near the position sensors because flux may get attached to them.
- 4) Any soldering iron used must be 20 W to 30 W, the temperature must be less than 300 °C, and within 3 seconds.

2. Prohibited items and notes on handling

1. Operating temperature range

Use in the range of -10 °C to +70 °C

2. Storage temperature

Store in the range of -40 °C to +70 °C

3. Storage conditions

Do not store the position sensors under high temperatures and/or high humidity, or in a location where corrosive gas may be present. Store the mounted sensors at a room temperature and humidity in its original packaging. Use them within 6 months. Check the date of manufacture on the package box and apply the "first-in-first-out" rule. If unpacked position sensors must be stored as inventory, store them in a polyethylene bag to keep out air.

3. Cautionary notes regarding fire and smoking

1. Absolutely avoid use of a position sensor beyond its rated range, it could cause a fire and abnormality. Take proper measures such as current interruption using a protective circuit.
2. The grade of nonflammability for resin used in position sensors is "94HB," which is based on UL94 Standards (flammability test for plastic materials). Prohibit use in a location where a spreading fire may be generated or prepare against a spreading fire.

4. For use in equipment requiring high degrees of safety

Although care is taken to ensure position sensor quality, short circuits, or open circuits are some problems that may occur. To design a circuit which places maximum emphasis on safety, review the affect of any single fault of a position sensor in advance and perform virtually fail-safe design to ensure maximum safety by:

1. preparing a protective circuit or a protective device to improve system safety, and
2. preparing a redundant circuit to improve system safety so that the single fault of a position sensor does not cause a dangerous situation.

5. For actual use, be sure to refer to "Product Specifications for additional information."