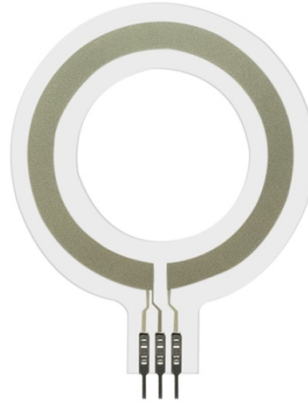


Rotary Motion Sensor Thru mode

RMS1T

Features

Position sensing
 Mechanical stress tolerance
 lightweight
 Ultra-thin: 0.33mm
 Instant responding sensitivity
 Low actuation force
 Low power consumption
 Robust: Up to 1M actuations
 Simple and easy to integrate
 Can be use without a microprocessor



Sensor & Connector Dimensions

	Sensing Area	$\phi 35.8 - 40.4\text{mm}$ (Dia.)
	Sensor Type	close
	Nominal Thickness	0.33mm
	Terminal Thickness	0.73mm
	Terminal Width	1.6mm
	Terminal Pitch	2.5mm

Customize Options

Response curve: Resistance parameter setting and sensing range performance.

Configuration: Sensing area layout

Dimension: Length, width, and sensor terminal tail

Substrate: Heat resistance and waterproofing

Connector: Depends on customer's request

Specifications

Characteristics

Position range	6° to 355°
Actuation Pressure	$\leq 200 \text{ g/cm}^2$
Position Resolution	$\leq 5^\circ$
Non-Actuated Resistance	$> 10\text{M } \Omega \text{ (ohm)}$
Response time	$< 40 \text{ ms}$

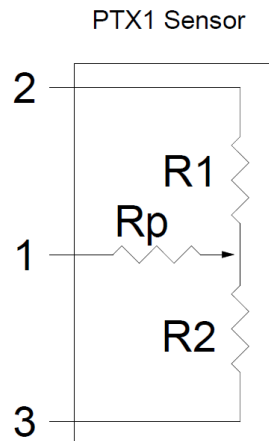
Durability

Operating Temperature Performance Cold: -15°C after 1 hour	$< 5\%$ average resistance change
Operating Temperature Performance Hot: 60°C after 1 hour	$< 15\%$ average resistance change
Storage Temperature Performance Cold: -15°C after 120 hours	$< 10\%$ average resistance change
Storage Temperature Performance Hot: 60°C after 120 hours	$< 15\%$ average resistance change
Active Durability	> 1 million actuations

Safety

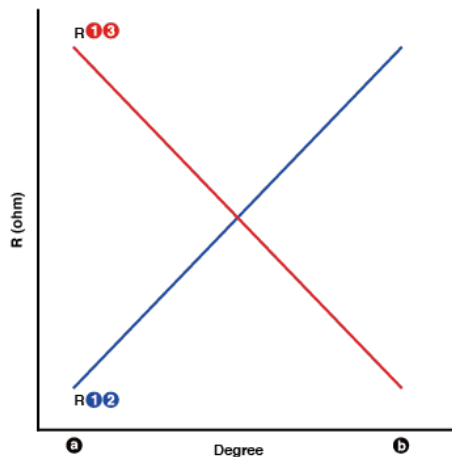
Electromagnetic Interference (EMI)	Generates no EMI
Electrostatic Discharge (ESD)	No ESD sensitive

Electric Layout



Pad/Pin out	
Pad/Pin no.	Function
1	Sense line
2	Drive line 1
3	Drive line 2

Response Curve



Remark

- Response curve for reference use and can be customize.
- Suggest evenly apply pressure on sensing area.
- Avoid sharp object contact on sensing area.
- Suggest welding terminal wire temperature not exceeding 300°C and contact time less than 1 second to avoid substrate melting.

Application

Medical

Pumping device

Can be integrated on pumping mechanism for monitoring.

Wearable device

Can be integrated on rehabilitation for posture monitoring and analysis.

Industrial

Maintenance

Can be integrated within mechanical asset for maintenance indicator

Calibration

Integrated within mechanical asset for calibration and monitoring

Consumer Electronics

Electronic gearbox

Can be integrated within cycling gearbox module for monitoring and feedback status.