



PCSTM-302

Capacitive Proximity Sensor

The PCS-302 proximity sensor is designed for non-contact measurements of relative vibration, displacement and axial positioning. It is equipped with built-in conditioning circuitry allowing it to be directly connected to processing instrumentation.

Furthermore, its exclusive capacitive measuring technology makes it unaffected by conductive or semi-conductive target material types, therefore requiring no field calibration.

General Specifications

Operation

• Measurement Type	Non-Contact Proximity, Capacitive Technology
• Measuring Range	0.3 to 2.3 mm [11.8 to 90.6 mils]
• Output	4 to 20 mA
• Sensitivity	8 mA/mm [0.2 mA/mil]
• Accuracy	± 1.25% F.S.R.
• Repeatability	± 0.5% F.S.R.
• Bandwidth	0 to 1000 Hz (-3dB)
• Load at Current Output	500 Ω max.
• Temperature Drift	< 500 ppm/°C (at mid-range)
• Short Circuit Protection	Built-In

Power Requirements

• Voltage	24 Vdc ± 15%
• Consumption	60 mA max.
• Voltage Reversal Protection	Built-In
• Warm-Up Time	5 Minutes

Connection

• Connector Type	4-Position M12 Male
• Max. Cable Length	300 m [984 ft]

Environment

• Temperature Range	
Operating	0 to 60°C [32 to 140°F]
Storage	-25 to 70°C [-13 to 158°F]
• Humidity	Up to 95%, Non-Condensing

Physical Characteristics

• Sensor Body	Chrome-Plated Brass
• Sensing Face	Glass-Reinforced Epoxy, FR-4

Dimensions

F.S.R.: Calculated on a full scale range

