

CMCP1100T Series Industrial Accelerometer with Temperature Sensor

Features:

- 100mV/g +/-5%
- 0.32 to 10kHz Frequency Range (± 3 dB)
- 0° to 100° C (32° to 212° F) Temperature Range
- 10mV/°C, 0.5°C Accuracy
- Waterproof (Epoxy Sealed)
- Santoprene Strain Relief
- UV and Oil Resistant Integral TPE Cable



The **CMCP1100T Series** 100mV/g ICP **Accelerometer** with integrated electronic **Temperature Sensor** is a cost effective solution for your vibration and temperature sensor needs. The integrated electronic Temperature Sensor has a 0.5° Celsius accuracy and a 0° to 100° Celsius temperature range. The accelerometer is waterproof and is fully enclosed in an epoxy filled stainless steel case. **CMCP1100T** accelerometers are available with general purpose TPE integral cables and can be ordered with standard 5, 10, and 20 meter cables (16', 32' and 64'). **CMCP1100T** accelerometers with standard length cables are guaranteed to be in stock. Custom lengths are available and can be built to order. **CMCP1100T** accelerometers are manufactured in house to high quality standards and are provided with a 1/4"-28 UNF mounting stud.

In addition to the integral cable version, the **CMCP1100T Series** also features the **CMCP1100CT Compact Accelerometer** with **Temperature Sensor**, pictured below, which is equipped with an 3-Pin M8 EuroStyle Connector which can be used with the CMCP603C Series Cables.

Ordering Information:

| Part No. | -XX | -XX | -XX | Description |
|------------------|-----|-----|-----|---|
| CMCP1100T | | | | Low Cost Industrial Accelerometer w/ Temperature Sensor |
| | -05 | | | 5 Meter Integral Cable (16.5 feet) |
| | -10 | | | 10 Meter Integral Cable (33 feet) |
| | -20 | | | 20 Meter Integral Cable (66 feet) |
| | -XX | | | Specify Length |
| | | -00 | | Blunt Cut |
| | | -01 | | Female BNC Connector |
| | | -02 | | Male BNC Connector |
| | | | -00 | Without Armor |
| | | | -03 | With Stainless Steel Braided Armor |

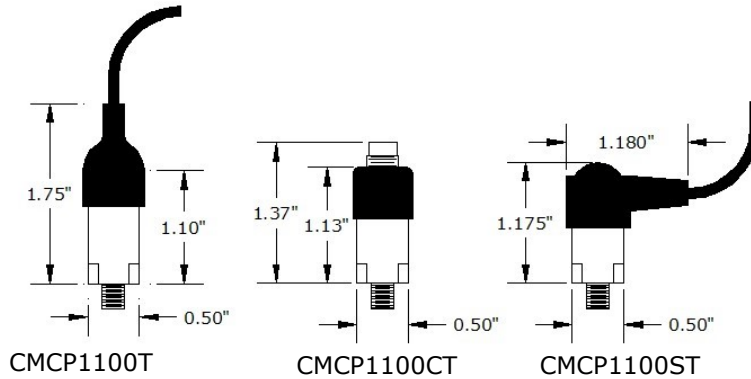
| Part No. | Description |
|-------------------|--|
| CMCP1100CT | Low Cost Industrial Accelerometer w/ Temperature, 3-Pin M8 |
| CMCP603C | 3-Pin M8 Accelerometer Extension Cable |



See Page 2 for Technical Specifications

To Order Online Please Visit
www.stiwebstore.com

CMCP1100T Industrial Accelerometer with Temperature Sensor



| DYNAMIC PERFORMANCE | ENGLISH | SI |
|--------------------------------|-----------------------|-----------------------------|
| Sensitivity ($\pm 10\%$) | 100 mV/g | 10.2 mV/(m/s ²) |
| Measurement Range | ± 50 g | ± 500 m/s ² |
| Frequency Range: (± 3 dB) | 0.32 – 10k Hz | 0.32 – 10k Hz |
| Mounted Resonant Freq. | >25 kHz | 25 kHz |
| Amplitude Linearity | $\pm 1\%$ | $\pm 1\%$ |
| Transverse Sensitivity | $\pm 5\%$ | $\pm 5\%$ |
| Temperature Range | 32° - 212°F | 0° - 100°C |
| Sensitivity (Temperature) | | 10mV/°C |
| ENVIRONMENTAL | | |
| Shock Limit | 7,000 g pk | 70k m/s ² pk |
| Temperature Range (STD) | -65 to +185° F | -54 to 85° C |
| Temperature Range (HT) | -65 to 250° F | -54 to 120° C |
| ELECTRICAL | | |
| Settling Time | 2.5 sec | 2.5 sec |
| Excitation Voltage | 18 to 28 VDC | 18 to 28 VDC |
| Excitation Constant Current | 2 to 20 mA | 2 to 20 mA |
| Output Impedance | <100 ohms | <100 ohms |
| Output Bias Voltage | 8 to 12 VDC | 8 to 12 VDC |
| Electrical Case Isolation | >10 ⁸ ohms | >10 ⁸ ohms |
| Electrical Protection | RFI/ESD | RFI/ESD |
| Integral Cable | 22 AWG, 221° F | 22 AWG, 105° C |
| MECHANICAL | | |
| Size | 0.50" x 1.37" typical | 12.7 x 34.8 mm |
| Weight (including 5 M cable) | 2.5 oz | 70.7 g |
| Mounting Thread | 1/4-28 UNF-2B | 1/4-28 UNF-2B |
| Mounting Torque | 2 to 5 ft-lb | 2.7 to 6.8 N-m |
| Sensing Element | Ceramic/Shear | Ceramic/Shear |
| Case Material | Stainless Steel | Stainless Steel |
| Sealing | Potted | Potted |
| Wrench Flats | 7/16" | 7/16" |
| Integral Cable | 0.13" OD | 3.3mm |
| Optional Braided Armor | Stainless Steel | |
| Braided Armor Diameter | 0.16" | 4.06mm |

Spectral Noise:

| | | |
|----------|----------------------------------|--|
| 1 Hz: | 85 μ g / $\sqrt{\text{Hz}}$ | 850 ($\mu\text{m/s}^2$) / $\sqrt{\text{Hz}}$ |
| 10 Hz: | 10 μ g / $\sqrt{\text{Hz}}$ | 100 ($\mu\text{m/s}^2$) / $\sqrt{\text{Hz}}$ |
| 100 Hz: | 2.7 μ g / $\sqrt{\text{Hz}}$ | 27 ($\mu\text{m/s}^2$) / $\sqrt{\text{Hz}}$ |
| 1000 Hz: | 1.0 μ g / $\sqrt{\text{Hz}}$ | 10 ($\mu\text{m/s}^2$) / $\sqrt{\text{Hz}}$ |

