

High temperature PE accelerometer

Description

The model 576P is a high-level signal output piezoelectric accelerometer designed specifically for measuring high temperature vibration on structures and test purpose. The unit is hermetically sealed and ideal for use in extreme environments. This sensor is the industry standard for vibration/shock accelerometers. In addition to adhesive mounting, 576P has $\varnothing 4.1$ through holes for screw mounting on the test object. The accelerometer is a self-generating device that requires no external power source for operation. Model 576P operating in annular shear mode. These specially designed crystals exhibit low base strain sensitivity, high resonance frequency, and excellent output stability over time. Signal ground is connected to the outer case of the unit. The accelerometer features a 10-32 side connector and requires a low-noise coaxial cable for error-free operation. Senter's model 11P-3 is a 10-32 to BNC breakout low noise cable for the sensor.

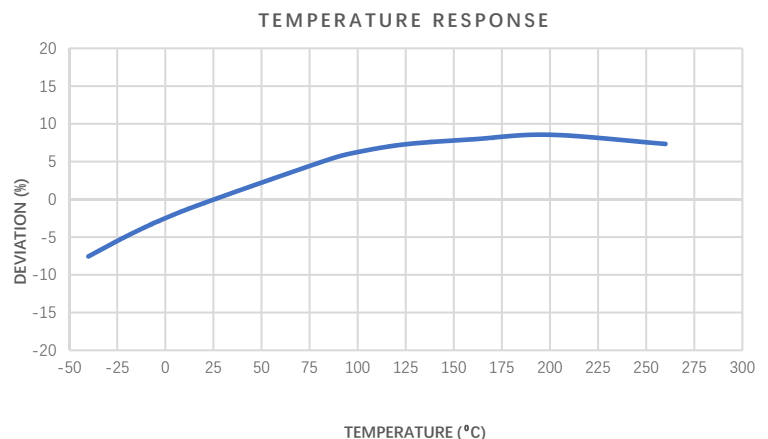
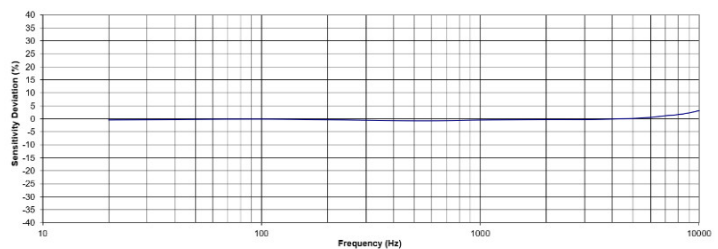
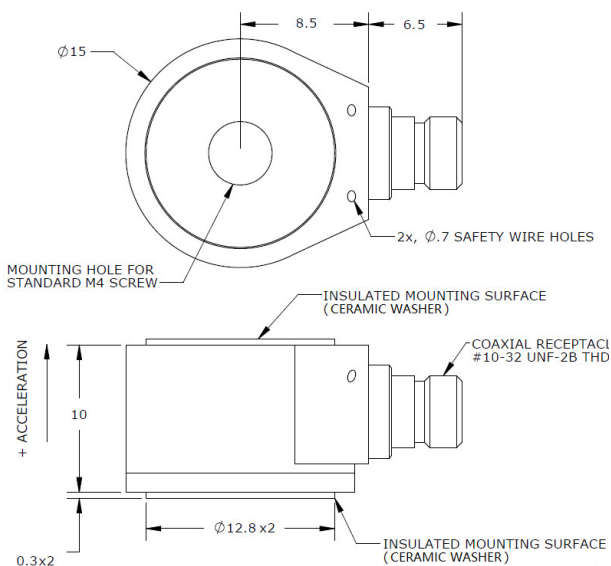


Features

- Through hole mount
- Side connector output
- Adhesive or screw mounting
- Hermetic seal
- Annular shear mode
- Wide frequency response
- Wide temperature range
- Safety wire hole available

Application

- Engine research
- Shock testing
- Modal analysis
- Aircraft testing
- Auto exhaust system



Specification

All values are typical at +24°C (+75°F) and 100Hz unless otherwise stated

DASH NO.

| | | |
|--|-----------|-------|
| SENSITIVITY, TYPICAL | 20 | pC/g |
| SENSITIVITY, MINIMUM | 18 | pC/g |
| FREQUENCY RESPONSE ±5% | 1-7000 | Hz |
| FREQUENCY RESPONSE ±10% | 1-10000 | Hz |
| FREQUENCY RESPONSE ±3dB | 0.5-15000 | Hz |
| RESONANT FREQUENCY | 38 | kHz |
| TRANSVERSE SENSITIVITY | <5 | % |
| TEMPERATURE RESPONSE, -70 to +260°C | ±10 | % |
| LINEARITY | ±1/1000g | %FSO |
| DYNAMIC RANGE | ±2000 | g |
| SHOCK LIMIT | ±5000 | g |
| WEIGHT | 12 | Grams |

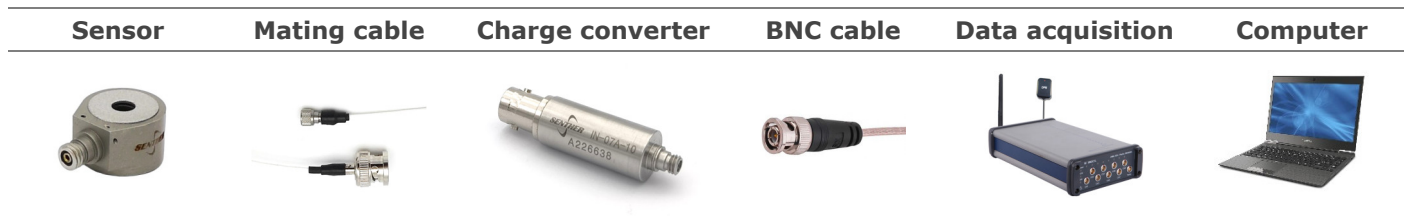
| PARAMETERS | VALUE | UNITS |
|--|---|-----------|
| INTERNAL RESISTANCE (@100Vdc) | >10 | GΩ |
| INTERNAL RESISTANCE @ +260°C (+500°F) | >10 | MΩ |
| CAPACITANCE (NOMINAL) | 1050 | pF |
| GROUNDING | Case Grounded (Isolated by Ceramic Washer) | |
| INSULATION RESISTANCE (@100Vdc) | >100 | MΩ |
| OPERATING TEMPERATURE | -70 to +260 | °C |
| HUMIDITY | Hermetically Sealed | |
| MATERIAL (Casing) | Stainless Steel | |
| SENSING ELEMENT | Piezo Ceramic | |
| MOUNTING TORQUE | 18 (2.0) | lb-in(Nm) |

Accessories

Calibration certificate included.

| Part Number | Description | Availability |
|----------------|--|--------------|
| PM0195 | M4x16 socket head cap mounting screw | Included |
| 11P-3 | 3 meter low noise mating cable with 10-32(male) to BNC(male) connector | Optional |
| 10P-3 | 3 meter low noise mating cable with 10-32(male) to 10-32(male) connector | Optional |
| IN-06 | 3 channels charge converter | Optional |
| IN-07 | 1 channel inline charge converter | Optional |
| IN-3062 | 8 channels data acquisition system | Optional |

Measurement configuration



Ordering information

| | |
|-------|-----------------|
| 576 | P |
| Model | Output signal |
| 576 | P=Charge output |



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