

 Model Number 1060V3
 PEFORMANCE SPECIFICATION
 Doc No PS1060V3

 Force Sensors, IEPE
 REV C, ECN 15099, 06/03/19



- DYNAMIC FORCE SENSOR
- VOLTAGE MODE
- EXCELLENT LINEARITY

| | | ENGLISH | | SI | |
|-----------------------------------|-----------|-----------------|--------------|-----------------|--------------|
| PHYSICAL | | | _ | | _ |
| Weight, Max. | | 16.10 | oz | 460 | grams |
| Connector | Type | Coaxial | | Coaxial | |
| | Thread | 10-32 | | 10-32 | |
| Housing | Material | Stainless steel | | Stainless steel | |
| | Isolation | Case grounded | | Case grounded | |
| Sensing Element | Material | Quartz | | Quartz | |
| | Mode | Compression | | Compression | |
| PERFORMANCE | | | | | |
| Sensitivity, +/-10% | | 1 | mV/Lb | 0.22 | mV/N |
| Compression Range | | 5000 | Lbs.Force | 22240 | N |
| Maximum Compression , +/-5% | | 30000 | Lbs.Force | 133440 | N |
| Tension Range | | 1000 | Lbs.Force | 4448 | N |
| Maximum Tension [1], +/-5% | | 1000 | Lbs.Force | 4448 | N |
| Resolution | | .07 | Lb. RMS | 0.31136 | N RMS |
| Linearity [2] | | ± 1 | % Full Scale | ± 1 | % Full Scale |
| Mounted Resonance (Unloaded) | | ≥ 75 | kHz | ≥ 75 | kHz |
| Stiffness | | 50 | Lb/µin | 8.66 | kN/μm |
| ENVIRONMENTAL | | | | | |
| Coefficient Of Thermal Sensitivit | у | 0.03 | %/°F | 0.05 | %/°C |
| Operating Temperature | - | -100 to +250 | °F | -73 to +121 | °C |
| Maximum Vibration | | ±3000 | g's,Peak | ±29400 | m/s^2 Peak |
| Maximum Shock | | 5,000 | g's,Peak | 49,000 | m/s^2 Peak |
| Environmental Seal | | Ероху | | Ероху | |
| ELECTRICAL | | | | | |
| Supply Current [3] | | 2 to 20 | mA | 2 to 20 | mA |
| Compliance Voltage | | +18 to +30 | VDC | +18 to +30 | VDC |
| Discharge Time Constant, Min. | | 1500 | Seconds | 1500 | Seconds |
| F.S. Output Voltage | | 5 | Volts | 5 | Volts |
| Output Impedance | | 100 | Ω | 100 | Ω |
| Bias Voltage | | +7.5 to +9.5 | VDC | +7.5 to +9.5 | VDC |
| | | | _ | | _ |

| This family also includes: | | | | | | | |
|----------------------------|---------------------|--------------------------------------|--|----------------------------------|--|--|--|
| Model | Sensitivity (mV/Lb) | Range (LbsF) Compressive, Tensile | Max Force (LbsF) Compressive, Tensile | Discharge Time Constant (Sec) | | | |
| 1060V1 | 10 | 500, 500 | 10000, 1000 | 150 | | | |
| -1060V2 | - 5 | 1000, 1000 | 20000, 1000 | 300- | | | |
| 1060V4 | 0.5 | 10000, 1000 | 40000, 1000 | 2000 | | | |
| 1060V5 | 0.2 | 25000, 1000 | 50000, 1000 | 2000 | | | |
| 1060V6 | 0.1 | 50000, 1000 | 60000, 1000 | 2000 | | | |
| | <u> </u> | | | | | | |

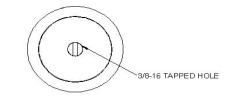
Refer to the performance specifications of the products in this family for detailed description

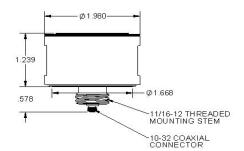
Supplied Accessories:

- 1) Accredited Calibration Certificate (ISO 17025)
- 2) MOD 6232 MOUNTING STUD

Notes:

- [1] Absolute maximum tension. Do not exceed in any case!
- [2] Percent of full scale or any lesser range, zero based best-fit sraight line method.
- [3] Power these instruments only with constant current type power units. Do not connect to a source of voltage without current limiting. This will destroy the integral IC amplifier.
- [4] In the interest of constant product improvement, we reserve the rights to change the specifications without notice. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.





Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1060V for more information.

