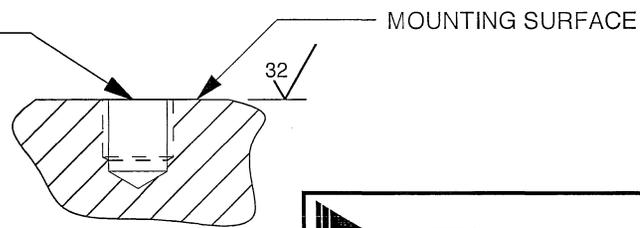


**MOUNTING PREPARATION**  
PREPARE FLAT SURFACE (TO .001 TIR)  
NEXT DRILL 5/16 (Ø.312) X .320 DEEP  
BOTTOM TAP 3/8-16 UNC-2B X .300 MIN  
THREAD DEPTH



REDRAWN ON CAD 9-9-96

4. DO NOT APPLY IMPACT LOADS TO FORCE SENSOR WITHOUT IMPACT CAP, MODEL 6217 OR EQUIVALENT. CONSULT FACTORY FOR SPECIAL IMPACT CAPS FOR YOUR PARTICULAR APPLICATION.
3. TORQUE TO 20-25 LB-FT AT INSTALLATION USING WRENCH ON WRENCH FLATS ONLY.
2. WEIGHT - 420 GRAMS
1. MATERIAL, HOUSING & CONNECTOR HOUSING: 300 SERIES STAINLESS STEEL. TOP AND BOTTOM SURFACES, 17-4 PH ST. STEEL

|  |          |                                |               |                  |  |
|--|----------|--------------------------------|---------------|------------------|--|
|  |          | <h1>MASTER ONLY IF IN RED</h1> |               | CHATSWORTH, CA.  |  |
| SCALE  | 1X       | REV                            | DATE          | ECN              |  |
| DATE   | 12/19/85 | PART NO.                       | 1061V         |                  |  |
| DRAWN  | N.C.     | CHECKED                        | MAT'L         |                  |  |
| APPROVED   | N.C.     | 05/17/05                       | NEXT ASSEMBLY | USED ON          |  |
| TITLE  |          |                                |               | DWG NO.          |  |
| <b>OUTLINE/INSTALLATION DRAWING<br/>FORCE SENSOR, SERIES 1061V</b> |          |                                |               | <b>127-1061V</b> |  |
|  |          |                                |               | SHEET 1 OF 1     |  |

|                               |                                  |                            |
|-------------------------------|----------------------------------|----------------------------|
| <b>Model Number</b><br>1061V3 | <b>PERFORMANCE SPECIFICATION</b> | <b>Doc No</b><br>PS1061V3  |
|                               | <b>Force Sensors, IEPE</b>       | REV A, ECN 12920, 08/23/16 |



- **DYNAMIC FORCE SENSOR**
- **VOLTAGE MODE**
- **EXCELLENT LINEARITY**

**PHYSICAL**

|                 |           |
|-----------------|-----------|
| Weight, Max.    | Type      |
| Connector       | Thread    |
| Housing         | Material  |
| Sensing Element | Isolation |
|                 | Material  |
|                 | Mode      |

| ENGLISH         |    | SI              |       |
|-----------------|----|-----------------|-------|
| 15.82           | oz | 452             | grams |
| Coaxial         |    | Coaxial         |       |
| 10-32           |    | 10-32           |       |
| Stainless steel |    | Stainless steel |       |
| Case grounded   |    | Case grounded   |       |
| Quartz          |    | Quartz          |       |
| Compression     |    | Compression     |       |

**PERFORMANCE**

|                              | ENGLISH          | SI               |
|------------------------------|------------------|------------------|
| 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**

|                                    | ENGLISH         | SI                |
|------------------------------------|-----------------|-------------------|
| Coefficient Of Thermal Sensitivity | 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                 | Epoxy           | Epoxy             |

**ELECTRICAL**

|                               | ENGLISH      | SI           |
|-------------------------------|--------------|--------------|
| 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        |

**This family also includes:**

| Model  | Sensitivity (mV/Lb) | Range (LbsF)<br>Compressive, Tensile | Max Force (LbsF)<br>Compressive, Tensile | Discharge Time<br>Constant (Sec) |
|--------|---------------------|--------------------------------------|--|----------------------------------|
| 1061V1 | 10                  | 500, 500                             | 10000, 1000                              | 150                              |
| 1061V2 | 5                   | 1000, 1000                           | 20000, 1000                              | 300                              |
| 1061V4 | 0.5                 | 10000, 1000                          | 40000, 1000                              | 2000                             |
| 1061V5 | 0.2                 | 25000, 1000                          | 50000, 1000                              | 2000                             |
| 1061V6 | 0.1                 | 50000, 1000                          | 60000, 1000                              | 2000                             |

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

**Supplied Accessories:**

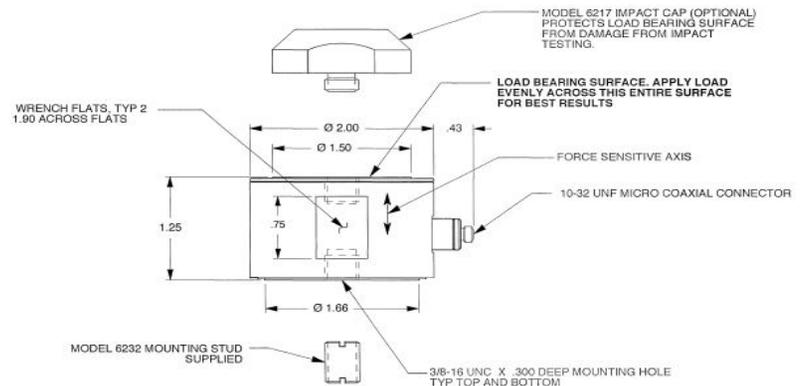
- 1) Accredited Calibration Certificate (ISO 17025)
- 2) MOD 6232 MOUNTING STUDS (2)

**Available Accessories:**

- 1) MOD 6217 STAINLESS STEEL IMPACT CAP

**Notes:**

- [1] Absolute maximum tension. Do not exceed in any case!
- [2] Percent of full scale or any lesser range, zero based best-fit straight 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1061V for more information.



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