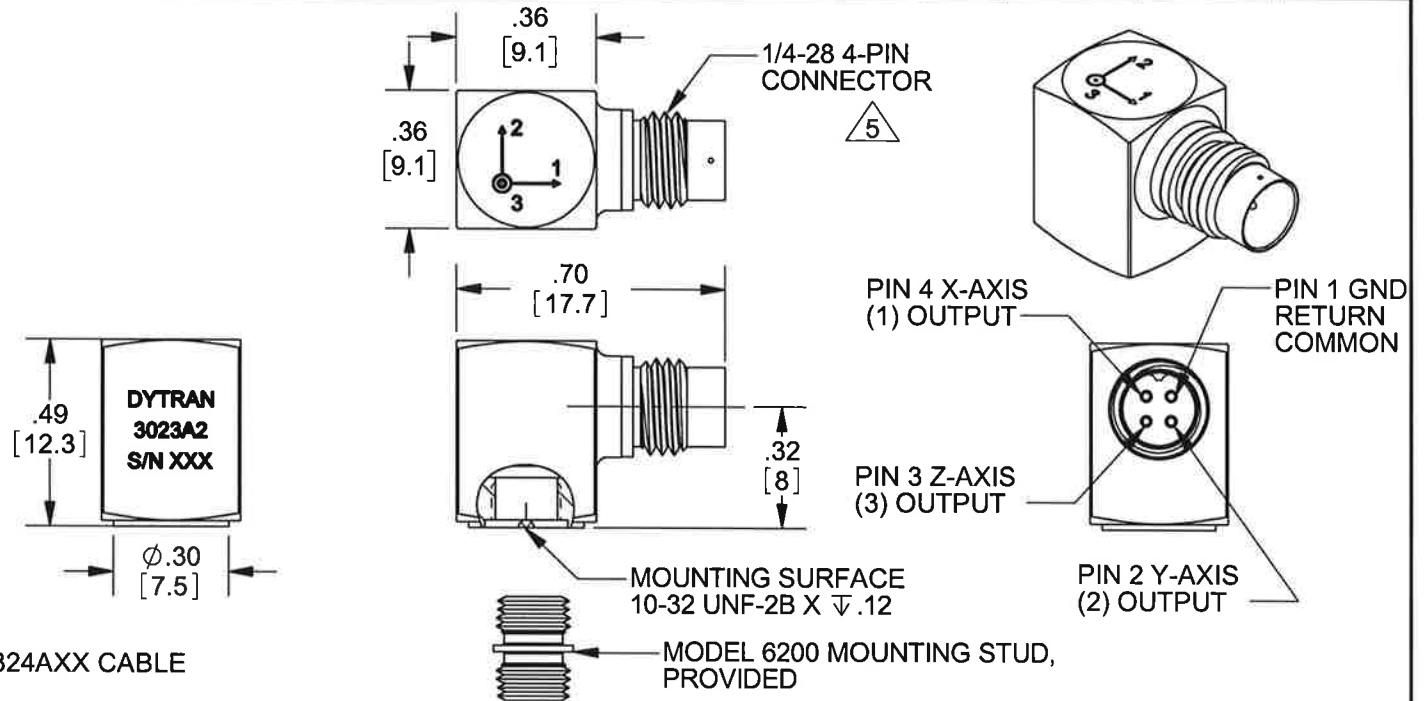


**PROPRIETARY AND CONFIDENTIAL**

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**REVISIONS**

| REV. | ECN   | DESCRIPTION | BY/DATE        | CHK | APPR |
|------|-------|-------------|----------------|-----|------|
| B    | 13153 | SEE ECN     | JB<br>11/30/16 | Em  | AS   |



5 MATES WITH DYTRAN 6811AXX OR 6824AXX CABLE (XX= LENGTH IN FEET)

- 4. SENSITIVITY: 10mV/g NOMINAL
- 3. WEIGHT: 4 GRAMS APPROX.
- 2. ARROWS INDICATE ACCELERATION DIRECTION FOR POSITIVE OUTPUT
- 1. MATERIAL: TITANIUM ALLOY

NOTES: UNLESS OTHERWISE SPECIFIED

**MOUNTING RECOMMENDATIONS:**  
 PREPARE SURFACE AT LEAST  $\phi$ .30 [7.5]  
 SURFACE FLATNESS MUST BE EQUAL OR BETTER THAN .001 TIR.  
 TAP 10-32 UNF-2B  
 $\nabla$  .120 MIN RECOMMENDED MOUNTING TORQUE 10-12 LB-IN.

|                            |           |  |
|----------------------------|-----------|--|
| USED ON                    | NEXT ASSY | UNLESS OTHERWISE SPECIFIED:<br>INTERPRET DIM & TOL PER ASME Y14.5M - 1994.<br>REMOVE BURRS.<br>COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.<br>CHAM EXT THDS 45° TO MINOR DIA.<br>THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.<br>THDS PER MIL-S-7742.<br>DIMENSIONS APPLY AFTER FINISHING.<br>ALL MACHINED SURFACES.<br>TOTAL RUNOUT WITHIN .005.<br>BREAK SHARP EDGES .005 TO .010.<br>MACHINED FILLET RADII .005 TO .015.<br>WELDING SYMBOLS PER AWS A2.4.<br>ABBREVIATIONS PER MIL-STD-12. |
| APPLICATION                |           |  |
| THIRD ANGLE PROJECTION USA |           | UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS<br>TOLERANCES ARE:<br>INCHES    METRIC    ANGLES<br>.XX ± .03    .X ± 0.8    ± 1°<br>.XXX ± 0.10    .XX ± 0.25  |
|                            |           |  |

|                      |   |
|----------------------|---|
| CONTRACT NO.         |   |
| MATERIAL             | APPROVALS   |
| FINISH               | DATE  |
| DO NOT SCALE DRAWING | ORIG RA 01/14/05<br>CHK PML 01/14/05<br>APP PML 01/14/05<br>APP |

**MASTER ONLY IF IN RED**  
 Chatsworth, CA

**DYTRAN INSTRUMENTS, INC.**

TITLE: **OUTLINE/INSTALLATION DRAWING, 3023A2**

|               |                        |                            |              |
|---------------|------------------------|----------------------------|--------------|
| SIZE <b>A</b> | CAGE CODE <b>2W033</b> | DWG. NO. <b>127-3023A2</b> | REV <b>B</b> |
| SCALE: 2:1    | SOLIDWORKS             | SHEET 1 OF 1               |              |

|  |                                     |                            |
|--|-------------------------------------|----------------------------|
|  | <b>TRI AXIAL IEPE ACCELEROMETER</b> | REV.F, ECN 14272, 06/18/18 |
|--|-------------------------------------|----------------------------|



- **STUD MOUNT**
- **EXCELLENT LINEARITY**
- **ULTRA LOW WEIGHT**

|                                   | ENGLISH           |            | SI                |                            |
|-----------------------------------|-------------------|------------|-------------------|----------------------------|
| <b>PHYSICAL</b>                   |                   |            |                   |                            |
| Weight, Max.                      | 0.14              | oz         | 4.0               | grams                      |
| Connector                         | 4- PIN            |            | 4- PIN            |                            |
| Mounting Provision                | 10-32 Tapped Hole |            | 10-32 Tapped Hole |                            |
| Material, Housing/Connector       | Titanium Alloy    |            | Titanium Alloy    |                            |
| Sensing Element                   | Quartz            |            | Quartz            |                            |
| Element Style                     | Shear             |            | Shear             |                            |
| <b>PERFORMANCE</b>                |                   |            |                   |                            |
| Sensitivity, -10 / +15% [1]       | 10                | mV/g       | 1                 | mV/m/s <sup>2</sup>        |
| Range for ± 5 Volts Output        | ±500              | g          | ±4903             | m/s <sup>2</sup>           |
| Frequency Response                | 1.5 to 4000       | Hz         | 1.5 to 4000       | Hz                         |
|                                   | ±5%               |            | 1.5 to 10000      | Hz                         |
|                                   | -5 / +15%         |            | > 40              | kHz                        |
| Resonant Frequency                | > 40              | kHz        | > 40              | kHz                        |
| Broad Band Resolution [6]         | 0.007             | Grms       | 0.069             | m/s <sup>2</sup> rms       |
| Spectral Noise                    | 1.25Hz            | Grms/√(Hz) | 0.029             | m/s <sup>2</sup> rms/√(Hz) |
|                                   | 10Hz              | Grms/√(Hz) | 0.0098            | m/s <sup>2</sup> rms/√(Hz) |
|                                   | 100Hz             | Grms/√(Hz) | 0.00196           | m/s <sup>2</sup> rms/√(Hz) |
|                                   | 1000Hz            | Grms/√(Hz) | 0.00049           | m/s <sup>2</sup> rms/√(Hz) |
|                                   | 10000Hz           | Grms/√(Hz) | 0.00039           | m/s <sup>2</sup> rms/√(Hz) |
| Linearity [2]                     | 1                 | % F.S.     | 1                 | % F.S.                     |
| Maximum Transverse Sensitivity    | 6                 | %          | 6                 | %                          |
| Strain Sensitivity @ 250µε        | 0.006             | g/µε       | 0.06              | m/s <sup>2</sup> /µε       |
| Signal Polarity                   | [5]               |            | [5]               |                            |
| <b>ENVIRONMENTAL</b>              |                   |            |                   |                            |
| Maximum Vibration                 | ±600              | Gpeak      | ±5884             | m/s <sup>2</sup> peak      |
| Maximum Shock                     | 5000              | Gpeak      | 49033             | m/s <sup>2</sup> peak      |
| Temperature Range                 | -60 to +250       | °F         | -51 to +121       | °C                         |
| Seal                              | Hermetic          |            | Hermetic          |                            |
| Magnetic Sensitivity at 100 Gauss | 0.00005           | g/Gauss    | 4.905             | m/s <sup>2</sup> /T        |
| <b>ELECTRICAL</b>                 |                   |            |                   |                            |
| Supply Current Range [3]          | 2 to 20           | mA         | 2 to 20           | mA                         |
| Compliance Voltage Range          | 18 to 30          | Volts      | 18 to 30          | Volts                      |
| Output Impedance, Typ             | 100               | Ω          | 100               | Ω                          |
| Bias Voltage                      | 7 to 11           | VDC        | 7 to 11           | VDC                        |
| Discharge Time Constant           | 0.3 - 1.5         | Sec        | 0.3 - 1.5         | Sec                        |
| Electrical Isolation              | Case Grounded     | GΩ, min    | Case Grounded     | GΩ, min                    |

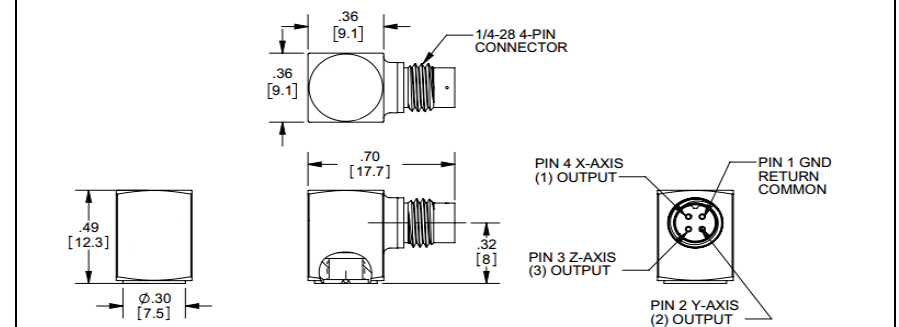
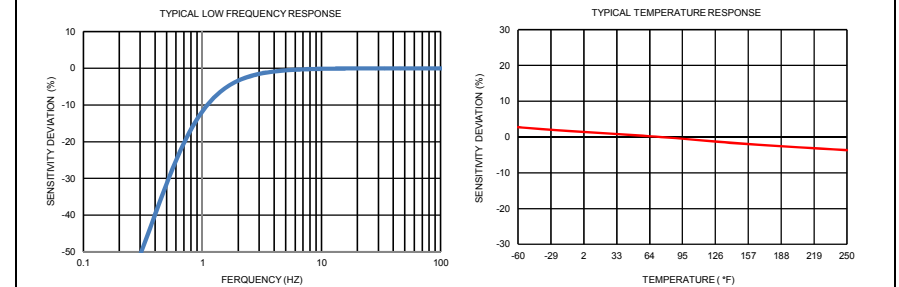
**This family also includes:**

| Model  | Sensitivity (mV/g) | Frequency Response (Hz)   | Mounting          | Operating Temp (°F) |
|--------|--------------------|---------------------------|-------------------|---------------------|
| 3023A  | 10 (-10 to +15%)   | 1.5 to 10000 (-5 to +15%) | Adhesive          | -60 to +250         |
| 3023A1 | 10 (-10 to +15%)   | 1.5 to 10000 (-5 to +15%) | 5-40 Tapped Hole  | -60 to +250         |
| 3023A3 | 5 (-10 to +15%)    | 1.5 to 10000 (-5 to +15%) | Adhesive          | -60 to +250         |
| 3023A4 | 5 (-10 to +15%)    | 1.5 to 10000 (-5 to +15%) | 5-40 Tapped Hole  | -60 to +250         |
| 3023A5 | 1 (±5%)            | 1.5 to 10000 (-5 to +15%) | Adhesive          | -60 to +250         |
| 3023A6 | 5 (-10 to +15%)    | 1.5 to 10000 (-5 to +15%) | 10-32 Tapped Hole | -60 to +250         |
| 3023A9 | 1 (±10%)           | 1.5 to 10000 (-5 to +15%) | 10-32 Tapped Hole | -60 to +250         |

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

- Supplied Accessories:**
- 1) Accredited calibration certificate (ISO 17025)
  - 2) Model 6200 Mounting Stud, Quantity 1

- Notes:**
- [1] Measured at 100Hz, 1 Grms per ISA RP 37.2.
  - [2] Measure using zero-based straight line method, % of F.S. or any lesser range.
  - [3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
  - [4] In the interest of constant product improvement, we reserve the right to change specifications without notice.
  - [5] Positive for motion in direction of arrows on housing.
  - [6] Typical. Not to exceed .010 Grms [10 m/s<sup>2</sup>].



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3023A2 for more information.