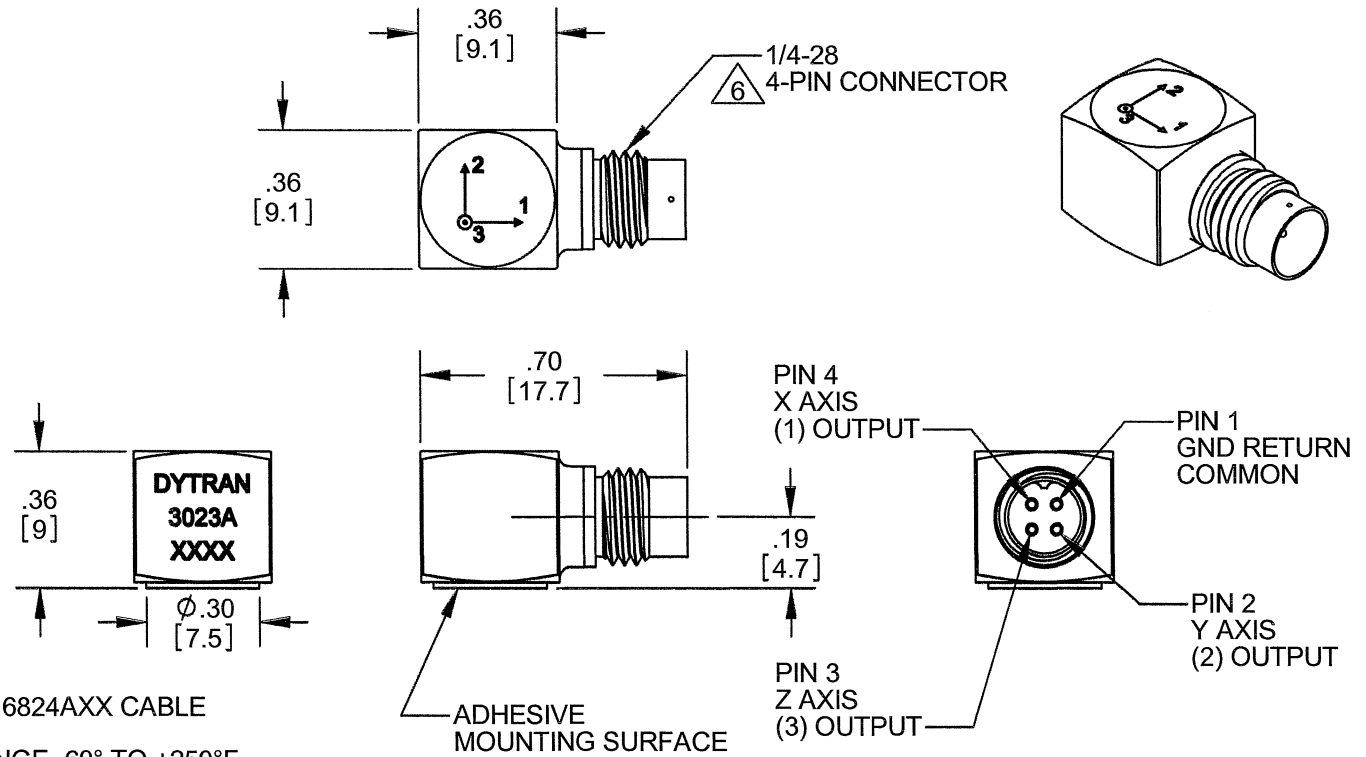


**PROPRIETARY AND CONFIDENTIAL**

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**REVISIONS**

| REV. | ECN  | DESCRIPTION                      | BY/DATE         | CHK | APPR |
|------|------|----------------------------------|-----------------|-----|------|
| A    | 6250 | ADDED NOTE 5 & 6 AND REFORMATTED | RA,<br>11/23/09 |     |      |



- 6. MATES WITH DYTRAN 6811AXX OR 6824AXX CABLE (XX=LENGTH IN FEET)
- 5. OPERATIONAL TEMPERATURE: RANGE -60° TO +250°F
- 4. SENSITIVITY: 10mV/G NOM.
- 3. WEIGHT: 3 GRAMS NOM
- 2. ARROWS INDICATE ACCELERATION DIRECTION FOR POSITIVE OUTPUT
- 1. MATERIAL: TITANIUM ALLOY

NOTES: UNLESS OTHERWISE SPECIFIED.

|   |           |
|---|-----------|
| UNLESS OTHERWISE SPECIFIED:<br>INTERPRET DIM & TOL PER<br>ASME Y14.5M - 1994.<br>REMOVE BURRS.<br>COUNTERSINK INTERNAL THDS<br>90° TO MAJOR DIA.<br>CHAM EXT THDS 45° TO MINOR DIA.<br>THD LENGTHS AND DEPTHS ARE FOR<br>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. |           |
| 3023A   |           |
| USED ON   | NEXT ASSY |
| APPLICATION   |           |
| THIRD ANGLE PROJECTION<br>USA   |           |

|   |  |
|---|--|
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES.<br>DIMENSIONS IN BRACKETS [ ]<br>ARE IN MILLIMETERS<br>TOLERANCES ARE:<br>INCHES METRIC ANGLES<br>.XX ± .03 X ± 0.8 ± 1°<br>.XXX ± .010 .XX ± 0.25 |  |
| MATERIAL  |  |
| FINISH  |  |
| DO NOT SCALE DRAWING  |  |

|              |              |
|--------------|--------------|
| CONTRACT NO. |              |
| APPROVALS    |              |
| ORIG         | PML 05/09/03 |
| CHK          | PML 05/12/03 |
| APP          | NC 05/12/03  |
| DATE         |              |

**DYTRAN INSTRUMENTS, INC.** **MASTER ONLY IF IN RED**

TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL 3023A**

|               |                        |                           |              |
|---------------|------------------------|---------------------------|--------------|
| SIZE <b>A</b> | CAGE CODE <b>2W033</b> | DWG. NO. <b>127-3023A</b> | REV <b>A</b> |
| SCALE: 4:1    |                        | SOLIDWORKS                | SHEET 1 OF 1 |



- MINATURE SIZE
- EXCELLENT LINEARITY
- ULTRA LOW WEIGHT

**PHYSICAL**

Weight, Max.  
Connector  
Mounting Provision  
Material, Housing/Connector  
Sensing Element  
Element Style

| ENGLISH        |    | SI             |       |
|----------------|----|----------------|-------|
| 0.11           | oz | 3.0            | grams |
| 4-PIN          |    | 4-PIN          |       |
| Adhesive Mount |    | Adhesive Mount |       |
| Titanium Alloy |    | Titanium Alloy |       |
| Quartz         |    | Quartz         |       |
| Shear          |    | Shear          |       |

**PERFORMANCE**

Sensitivity, -10 / +15 % [1]  
Range for ± 5 Volts Output  
Frequency Response  
Resonant Frequency  
Broad Band Resolution  
Spectral Noise  
Linearity [2]  
Maximum Transverse sensitivity  
Strain Sensitivity @ 250µε

|              |             |              |                             |
|--------------|-------------|--------------|-----------------------------|
| 10           | mV/g        | 1            | mV/m/s <sup>2</sup>         |
| ±500         | g           | ±4903        | m/s <sup>2</sup>            |
| 1.5 to 4000  | Hz          | 1.5 to 4000  | Hz                          |
| 1.5 to 10000 | Hz          | 1.5 to 10000 | Hz                          |
| > 40         | kHz         | > 40         | kHz                         |
| 0.007        | Grms        | 0.069        | m/s <sup>2</sup> rms        |
| 0.003        | µGrms/v(Hz) | 0.029        | µm/s <sup>2</sup> rms/v(Hz) |
| 0.001        | µGrms/v(Hz) | 0.0098       | µm/s <sup>2</sup> rms/v(Hz) |
| 0.0002       | µGrms/v(Hz) | 0.00196      | µm/s <sup>2</sup> rms/v(Hz) |
| 0.00005      | µGrms/v(Hz) | 0.00049      | µm/s <sup>2</sup> rms/v(Hz) |
| 0.00004      | µGrms/v(Hz) | 0.00039      | µm/s <sup>2</sup> rms/v(Hz) |
| 1            | % F.S.      | 1            | % F.S.                      |
| 5            | %           | 5            | %                           |
| 0.039        | g/µε        | 0.38         | m/s <sup>2</sup> /µε        |

**ENVIRONMENTAL**

Maximum Vibration  
Maximum Shock  
Temperature Range  
Seal  
Magnetic Sensitivity at 100 Gauss

|             |         |             |                       |
|-------------|---------|-------------|-----------------------|
| ±600        | Gpeak   | ±5884       | m/s <sup>2</sup> peak |
| 5000        | Gpeak   | 49033       | m/s <sup>2</sup> peak |
| -60 to +250 | °F      | -51 to +121 | °C                    |
| Hermetic    |         | Hermetic    |                       |
| 0.00005     | g/Gauss | 4.905       | m/s <sup>2</sup> /T   |

**ELECTRICAL**

Supply Current Range [3]  
Compliance Voltage Range  
Output Impedance, Typ  
Bias Voltage  
Discharge Time Constant  
Electrical Isolation

|               |         |               |         |
|---------------|---------|---------------|---------|
| 2 to 20       | mA      | 2 to 20       | mA      |
| 18 to 30      | Volts   | 18 to 30      | Volts   |
| 100           | Ω       | 100           | Ω       |
| 7 to 11       | VDC     | 7 to 11       | VDC     |
| 0.3 to 1.5    | Sec     | 0.3 to 1.5    | Sec     |
| Case Grounded | GΩ, min | Case Grounded | GΩ, min |

**This family also includes:**

| Model  | Sensitivity (mV/g) | Frequency Response (Hz)   | Mounting          | Operating Temp (°F) |
|--------|--------------------|---------------------------|-------------------|---------------------|
| 3023A1 | 10 (-10 to +15%)   | 1.5 to 10000 (-5 to +15%) | 5-40 Tapped Hole  | -60 to +250         |
| 3023A2 | 10 (-10 to +15%)   | 1.5 to 10000 (-5 to +15%) | 10-32 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         |

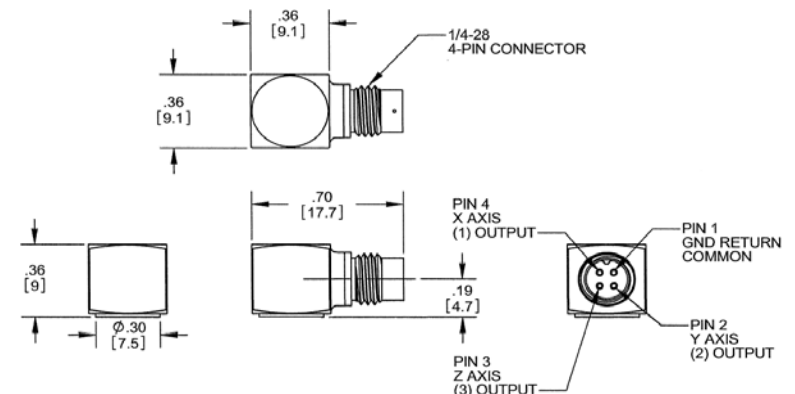
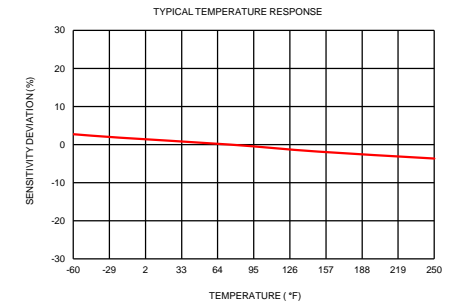
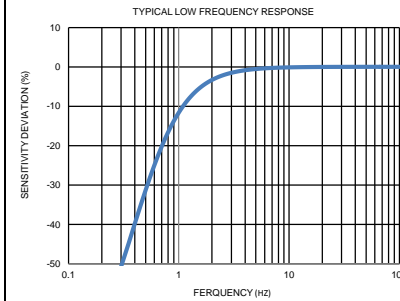
Refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)

**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.



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

