



4

3

DWG NO

127-7531A1-XX

SH 2

REV C

2

1

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF  
DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE  
WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

D

D

C

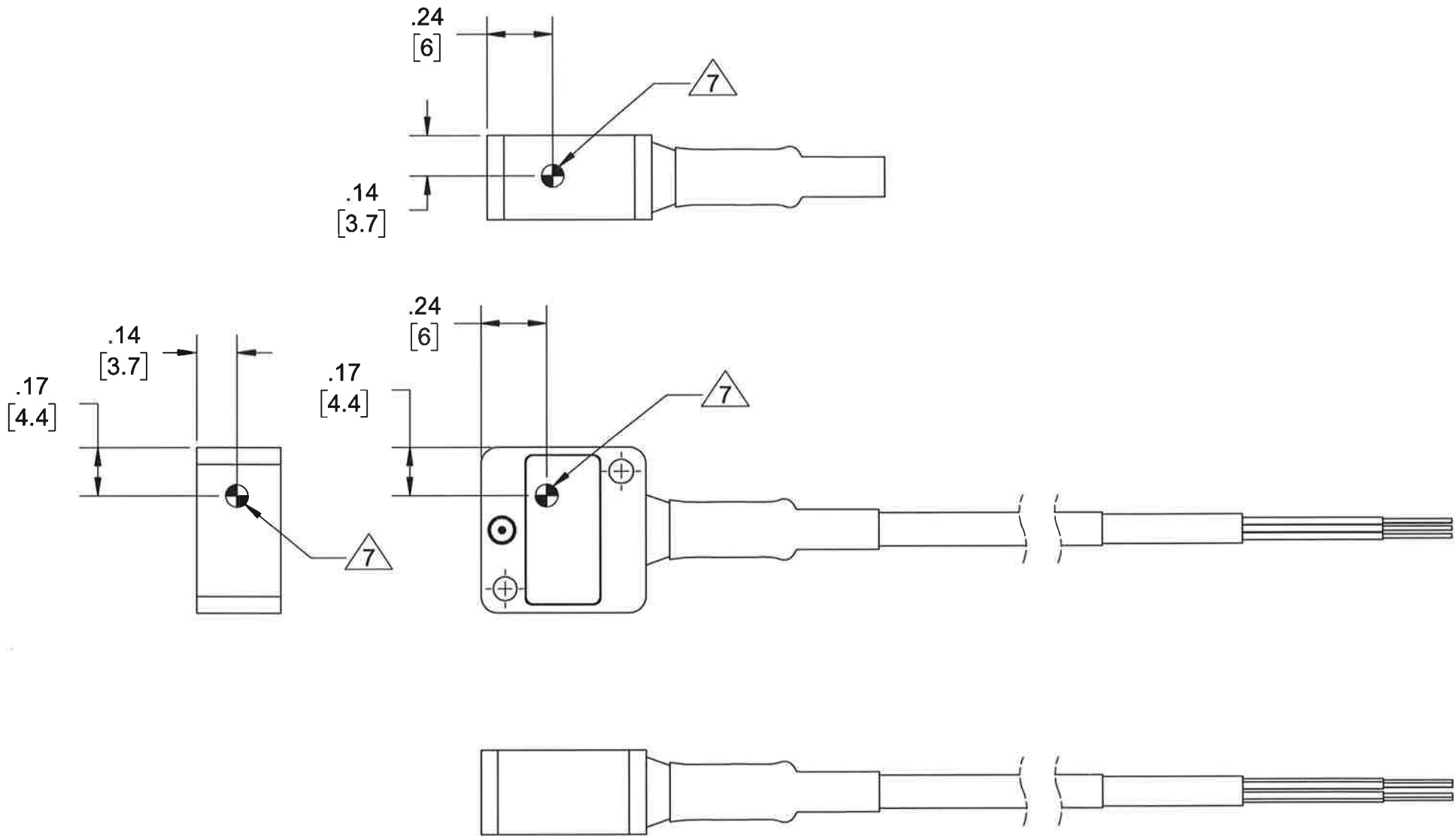
C

B

B

A

A



SENSOR LOCATIONS 7

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

TITLE: **OUTLINE/INSTALLATION  
DWG, 7531AX SERIES**

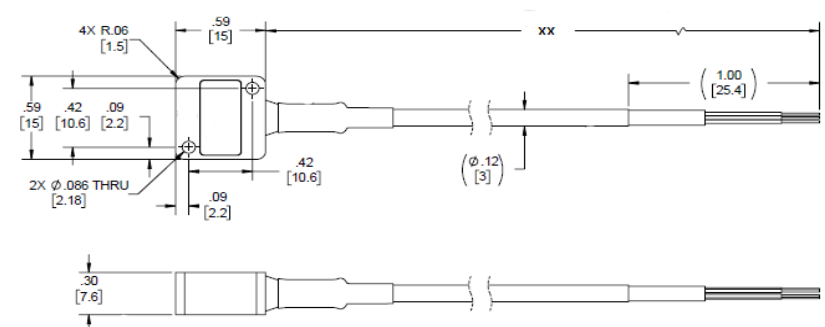
|                  |                           |                                |                 |
|------------------|---------------------------|--------------------------------|-----------------|
| SIZE<br><b>B</b> | CAGE CODE<br><b>2W033</b> | DWG NO<br><b>127-7531A1-XX</b> | REV<br><b>C</b> |
| SCALE: 2:1       |                           | PART NO: 7531AX                | SHEET 2 OF 2    |

4

3

2

1

| MODEL NUMBER<br>7531A2                                                                                                                                                                                                        |  | PERFORMANCE SPECIFICATIONS                                                                                                                                                                                                                                                   |  |                                                               |                           | DOC NO.<br>PS7531A2                                                                     |  |                                                                                                              |               |                      |                |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------|---------------|----------------------|----------------|--|
|                                                                                                                                                                                                                               |  | SINGLE AXIS, DC ACCELEROMETER                                                                                                                                                                                                                                                |  |                                                               | REV C ECN 13570, 07/20/17 |                                                                                         |  |                                                                                                              |               |                      |                |  |
|  <ul style="list-style-type: none"><li>• LOW COST</li><li>• WIDE SUPPLY VOLTAGE RANGE</li><li>• LOW CURRENT CONSUMPTION</li></ul>            |  | ENGLISH                                                                                                                                                                                                                                                                      |  | SI                                                            |                           | Model                                                                                   |  | Sensitivity (mV/g)                                                                                           | Range (Gpeak) | Noise(μGrms/sqr(Hz)) | Oper. Temp(°F) |  |
|                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                              |  |                                                               |                           | 7531A1                                                                                  |  | 420                                                                                                          | ±2            | 250                  | -40 to 185     |  |
|                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                              |  |                                                               |                           | 7531A3                                                                                  |  | 174                                                                                                          | ±5            | 250                  | -40 to 185     |  |
|                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                              |  |                                                               |                           | 7531A4                                                                                  |  | 57                                                                                                           | ±16           | 300                  | -40 to 185     |  |
|                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                                                                              |  |                                                               |                           | 7531A5                                                                                  |  | 6.5                                                                                                          | ±200          | 2700                 | -40 to 185     |  |
|                                                                                                                                                                                                                               |  | Please, refer to the performance specifications of the products in this family for detailed description                                                                                                                                                                      |  |                                                               |                           |                                                                                         |  |                                                                                                              |               |                      |                |  |
|                                                                                                                                                                                                                               |  | <b>Supplied Accessories:</b><br>1) Accredited calibration certificate (ISO 17025)<br>2) Mounting Screw, Model 6675, M2x0.4 x 12mm, qty. 2                                                                                                                                    |  |                                                               |                           |                                                                                         |  |                                                                                                              |               |                      |                |  |
|                                                                                                                                                                                                                               |  | <b>Notes:</b><br>[1] Measured at 100 Hz, 5 Grms per ISA RP 37.2<br>[2] Linearity is % of specified full scale (or any less full-scale range), zero-based best fit straight line method.<br>[3] Refer to the Operating Guide for instructions on how to use Self-Test feature |  |                                                               |                           |                                                                                         |  |                                                                                                              |               |                      |                |  |
| <b>PHYSICAL</b><br>Weight, Max. (less cable)<br>Mounting<br>Cable<br>Type<br>Material<br>Housing<br>Material<br>Isolation                                                                                                     |  | 0.21<br>2X M2 Screws<br>6-conductor<br>Santoprene<br>Aluminum, Anodized<br>Case Isolated                                                                                                                                                                                     |  | oz<br>grams                                                   |                           | 6.0<br>2X M2 Screws<br>6-conductor<br>Santoprene<br>Aluminum, Anodized<br>Case Isolated |  |                                                                                                              |               |                      |                |  |
| <b>PERFORMANCE</b><br>Sensitivity, +/-10% [1]<br>Acceleration Range<br>Frequency Range, -3dB<br>Resonance Frequency<br>Linearity [2]<br>Transverse Sensitivity Max<br>Spectral Noise<br>Sensitivity Change Due to Temperature |  | 300<br>±3<br>0 to 1600<br>>5.5<br>±0.3<br>5<br>175<br>0.006                                                                                                                                                                                                                  |  | mV/g<br>Gpeak<br>Hz<br>kHz<br>%F.S.<br>%<br>μGrms/√Hz<br>%/°F |                           | 30.6<br>±29.4<br>0 to 1600<br>>5.5<br>±0.3<br>5<br>1717<br>0.01                         |  | mV/m/s <sup>2</sup><br>m/s <sup>2</sup> peak<br>Hz<br>kHz<br>%F.S.<br>%<br>μm/s <sup>2</sup> rms/√Hz<br>%/°C |               |                      |                |  |
| <b>ELECTRICAL</b><br>Supply Current<br>Supply Voltage Range<br>Output Impedance, Typ.<br>Output Bias Voltage<br>Output Range<br>Self-Test Output [3]<br>Turn-On Time                                                          |  | 175<br>4 to 28<br>100<br>1.35 to 1.65<br>±1.0<br>+150 to -600<br>1                                                                                                                                                                                                           |  | μA<br>VDC<br>Ω<br>VDC<br>VDC<br>mV<br>ms                      |                           | 175<br>4 to 28<br>100<br>1.35 to 1.65<br>±1.0<br>+150 to -600<br>1                      |  | μA<br>VDC<br>Ω<br>VDC<br>VDC<br>mV<br>ms                                                                     |               |                      |                |  |
| <b>ENVIRONMENTAL</b><br>Shock Max<br>Vibration Max<br>Operating Temperature<br>Seal                                                                                                                                           |  | 10,000<br>5000<br>-40 to +185<br>Epoxy                                                                                                                                                                                                                                       |  | g pk<br>g pk<br>°F                                            |                           | 98100<br>49050<br>-40 to +85<br>Epoxy                                                   |  | m/s <sup>2</sup><br>m/s <sup>2</sup><br>°C                                                                   |               |                      |                |  |
|                                                                                                                                                                                                                               |  |                                                                                                                                                                                          |  |                                                               |                           |                                                                                         |  |                                                                                                              |               |                      |                |  |
|                                                                                                                                                                                                                               |  | Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-7531A1-XX for more information.                                                                                                                                                  |  |                                                               |                           |                                                                                         |  |                                                                                                              |               |                      |                |  |



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880  
www.dytran.com For permission to reprint this content, please contact info@dytran.com



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880  
[www.dytran.com](http://www.dytran.com) For permission to reprint this content, please contact [info@dytran.com](mailto:info@dytran.com)