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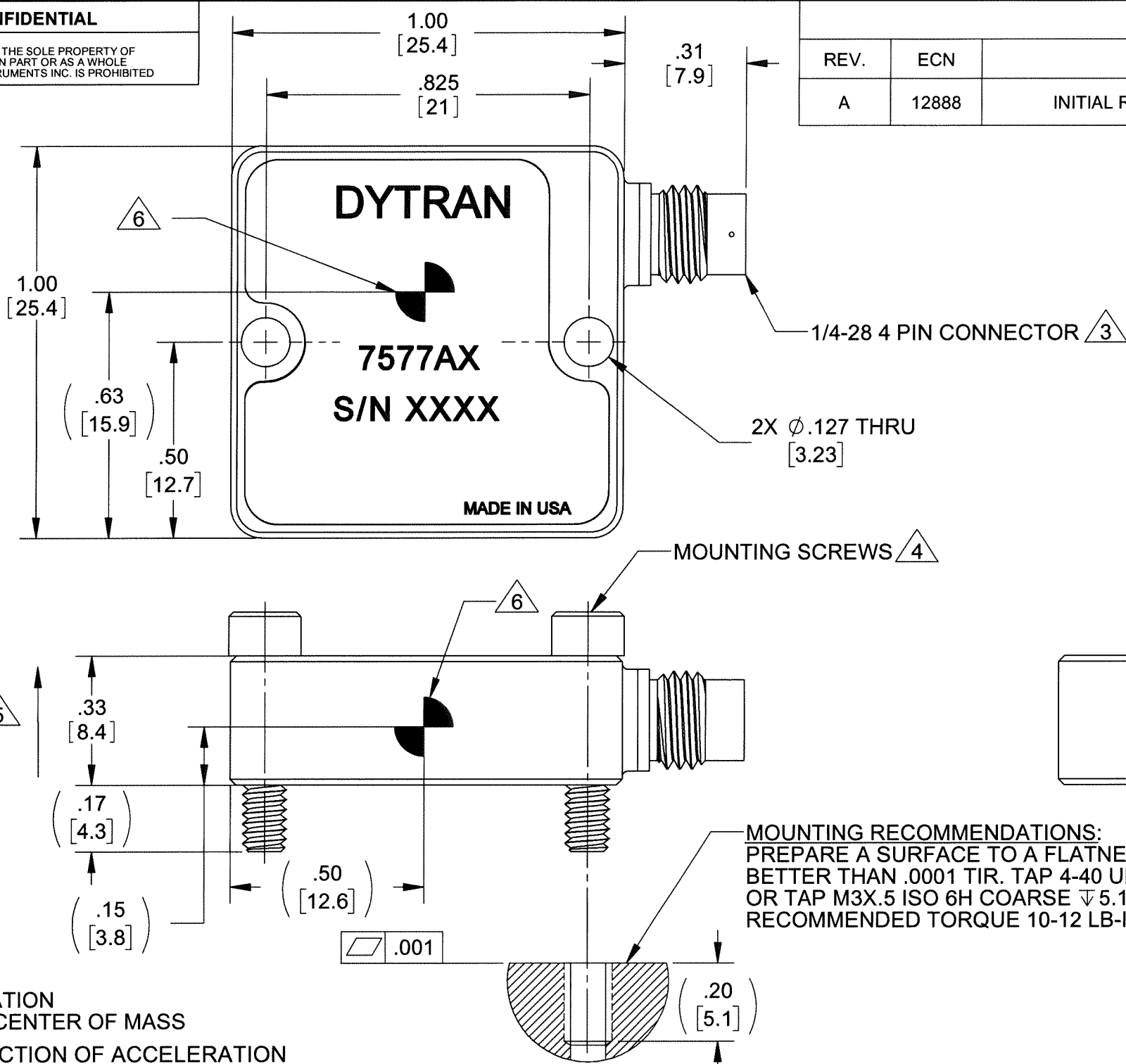
B

A

**PROPRIETARY AND CONFIDENTIAL**

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| MODEL NO. | RANGE |
|-----------|-------|
| 7577A1    | ±2g   |
| 7577A2    | ±5g   |
| 7577A3    | ±10g  |
| 7577A4    | ±30g  |
| 7577A5    | ±50g  |
| 7577A6    | ±100g |
| 7577A7    | ±200g |

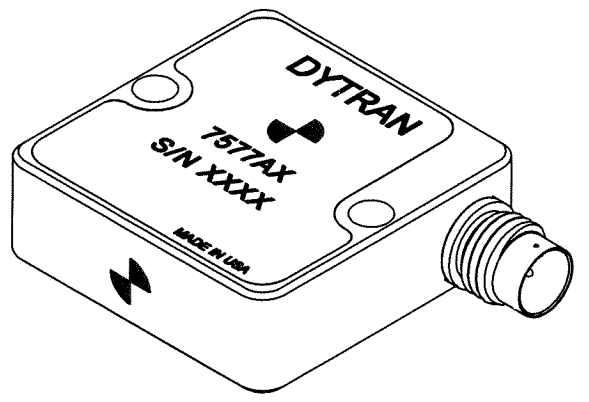


- 6 MARKING DENOTES LOCATION OF SENSING ELEMENT'S CENTER OF MASS
- 5 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT.
- 4 MOUNTING SCREWS: DYTRAN MODEL 6868 (4-40 UNC-2A) AND 6688 (M3X.5 ISO 6H COARSE), 2 EACH PROVIDED.
- 3 MATES WITH MODEL 6811AXX 4 PIN TO (3) BNC OR 6824AXX 4 PIN TO (3) BNC CABLES (XX = LENGTH IN FEET).

- 2. HOUSING/CONNECTOR MATERIAL: TITANIUM ALLOY.
- 1. WEIGHT: 17 GRAMS, MAX.

NOTES: UNLESS OTHERWISE SPECIFIED

|           |       |                                  |  |     |   |     |   |                |     |      |  |
|-----------|-------|----------------------------------|--|-----|---|-----|---|----------------|-----|------|--|
| DWG NO    |       | 127-7577A                        |  | ISH | 1 | REV | A | 2              |     | 1    |  |
| REVISIONS |       |                                  |  |     |   |     |   |                |     |      |  |
| REV.      | ECN   | DESCRIPTION                      |  |     |   |     |   | BY/DATE        | CHK | APPR |  |
| A         | 12888 | INITIAL RELEASE. SAME AS REV X3. |  |     |   |     |   | KG<br>11/09/18 | DP  | W    |  |



**MOUNTING RECOMMENDATIONS:**  
PREPARE A SURFACE TO A FLATNESS EQUAL OR BETTER THAN .0001 TIR. TAP 4-40 UNC-2B  $\nabla$  .200 MIN. OR TAP M3X.5 ISO 6H COARSE  $\nabla$  5.1 MIN. RECOMMENDED TORQUE 10-12 LB-IN.

UNLESS OTHERWISE SPECIFIED:  
INTERPRET DIM & TOL PER ASME Y14.5M - 1994.  
REMOVE BURRS.  
COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.  
CHAM EXT THDS 45° TO MINOR DIA.  
THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.  
DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES.  
TOTAL RUNOUT WITHIN .005.  
BREAK SHARP EDGES .005 TO .010.  
MACHINED FILLET RADII .005 TO .015.  
WELDING SYMBOLS PER AWS A2.4.  
ABBREVIATIONS PER MIL-STD-12.

| DECIMALS   |  | METRIC    |  | ANGLES |  |
|------------|--|-----------|--|--------|--|
| .XX ±.03   |  | X ± 0.8   |  | ±1°    |  |
| .XXX ±.010 |  | .XX ±0.25 |  |        |  |

| APPROVALS |    | DATE     |
|-----------|----|----------|
| ORIG      | LA | 08/11/16 |
| CHK       | DP | 11/19/18 |
| APP       | W  | 12/3/18  |

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

**MASTER COPY**

**DYTRAN INSTRUMENTS, INC.** Chatsworth, CA

TITLE: **OUTLINE/INSTALLATION DRAWING, VARIABLE CAPACITANCE ACCELEROMETER, MODEL 7577A**

|        |                 |                  |       |
|--------|-----------------|------------------|-------|
| SIZE B | CAGE CODE 2W033 | DWG NO 127-7577A | REV A |
|--------|-----------------|------------------|-------|

SCALE: 3:1

SHEET 1 OF 1

| Model Number<br>7577A7 |  | PERFORMANCE SPECIFICATION          |  |  |  | DOC NO<br>PS7577A7         |
|------------------------|--|------------------------------------|--|--|--|----------------------------|
|                        |  | VARIABLE CAPACITANCE ACCELEROMETER |  |  |  | REV B, ECN 15261, 08/01/19 |



- VARIABLE CAPACITANCE ACCELEROMETER
- DIFFERENTIAL MODE
- HERMETICALLY SEALED
- DC RESPONSE
- HIGH SHOCK SURVIVAL
- EXTENDED FREQUENCY RESPONSE

|               |                                          | ENGLISH              |             | SI                   |                          |
|---------------|------------------------------------------|----------------------|-------------|----------------------|--------------------------|
| PHYSICAL      | Weight, Max                              | 0.60                 | oz          | 17                   | grams                    |
|               | Connector                                | 4-Pin, 1/4-28 UNF-2A |             | 4-Pin, 1/4-28 UNF-2A |                          |
|               | Mounting                                 | 2 X Ø.127"           |             | 2 X Ø3.23mm          |                          |
|               | Material                                 | Titanium Alloy       |             | Titanium Alloy       |                          |
| PERFORMANCE   | Input Range                              | ±200                 | g           | ±1961.3              | m/s <sup>2</sup>         |
|               | Frequency Response (±5%)                 | 0 - 2200             | Hz          | 0 - 2200             | Hz                       |
|               | Frequency Response (±3dB)                | 0 - 7000             | Hz          | 0 - 7000             | Hz                       |
|               | Resonant Frequency                       | >11000               | Hz          | >11000               | Hz                       |
|               | Sensitivity Differential, ±10% [1]       | 20                   | mV/g        | 2.0                  | mV/m/s <sup>2</sup>      |
|               | Output Noise, Differential, Typ.         | 678                  | µg rms/√ Hz | 6651                 | µ m/s <sup>2</sup> /√ Hz |
|               | Non-Linearity, Max.                      | 0.5                  | % F.S.      | 0.5                  | % F.S.                   |
| ENVIRONMENTAL | Transverse Sensitivity, Max.             | 3                    | %           | 3                    | %                        |
|               | Maximum Mechanical Shock                 | 6000                 | gpk         | 58840                | m/s <sup>2</sup> peak    |
|               | Operating Temperature Range              | -67 to +257          | °F          | -55 to +125          | °C                       |
|               | Scale Factor Temperature Coefficient [2] | -11 to +122          | ppm/°F      | -20 to +220          | ppm/°C                   |
| ELECTRICAL    | Seal                                     | Hermetic             |             | Hermetic             |                          |
|               | Output Common Mode Voltage               | 2.45 - 2.65          | VDC         | 2.45 - 2.65          | VDC                      |
|               | Bias Calibration Error                   | 0.667                | g           | 0.068                | m/s <sup>2</sup>         |
|               | Output Impedance, Nom.                   | 1                    | Ω           | 1                    | Ω                        |
|               | Operating Voltage                        | +6 to +14            | VDC         | +6 to +14            | VDC                      |
|               | Operating Current (AOP & AON open)       | 3 to 6               | mA DC       | 3 to 6               | mA DC                    |
|               | Power Supply Rejection Ratio             | >65                  | dB          | >65                  | dB                       |
|               | Ground Isolation                         | >30                  | MΩ          | >30                  | MΩ                       |
|               | Warm Up Time                             | <0.5                 | sec         | <0.5                 | sec                      |
|               | Overload Recovery                        | <200                 | µsec        | <200                 | µsec                     |

**Supplied Accessories:**

1) Accredited calibration certificate (ISO 17025)

2) Two mounting screws of each: Model 6688 (M3.5) and Model 6868 (4-40)

**Notes:**

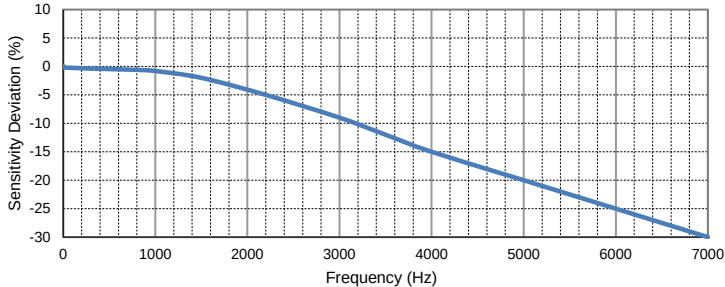
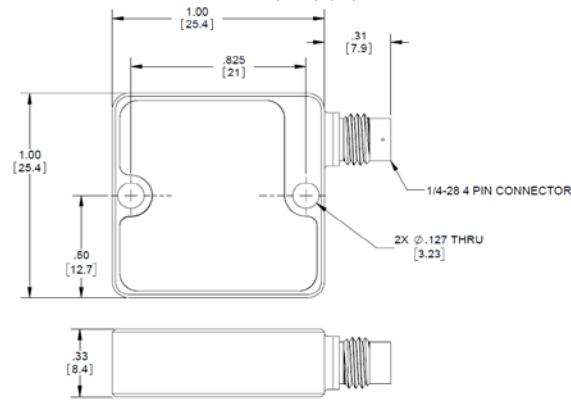
[1] Single ended sensitivity is half of values shown.

[2] Over the rated temperature range.

[3] In the interest of constant product improvement, we reserve the right to change 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.

**TYPICAL FREQUENCY RESPONSE**

Units on the line drawing are in inches, dimensions in brackets [] are in millimeters. Refer to 127-7577A for more information.



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