

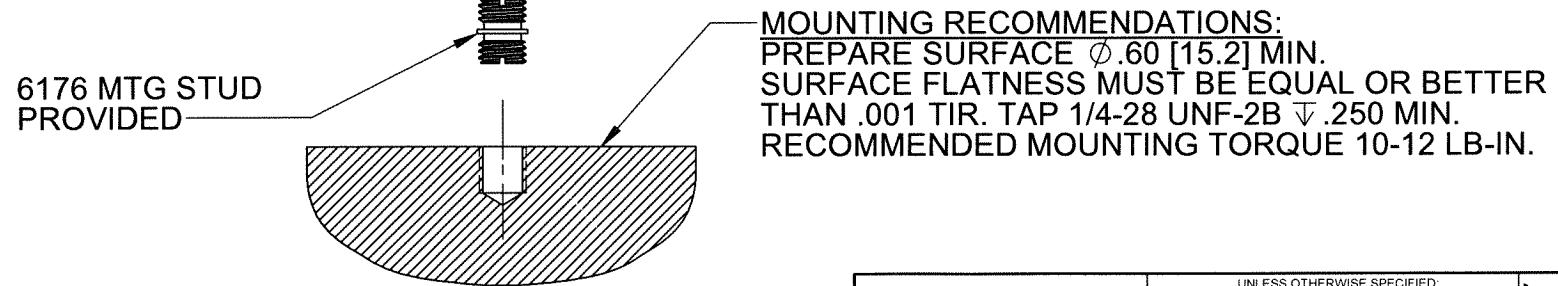
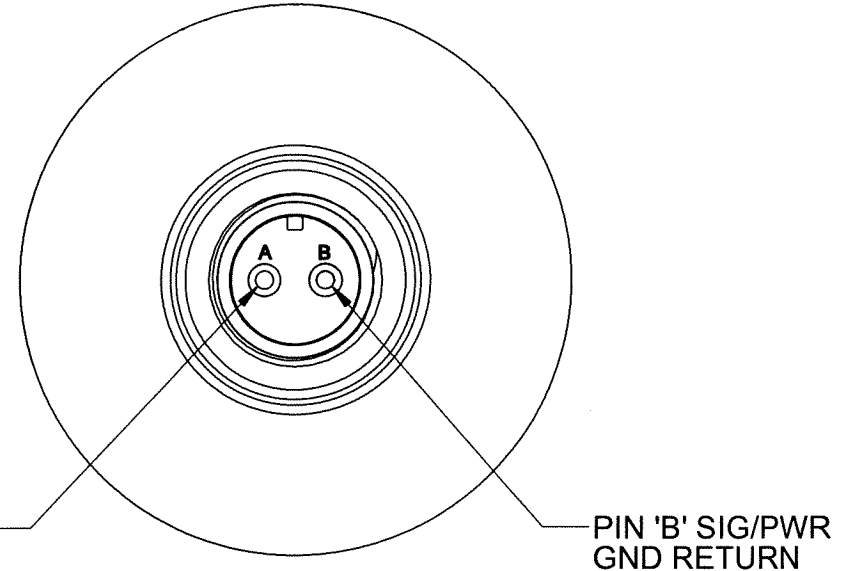
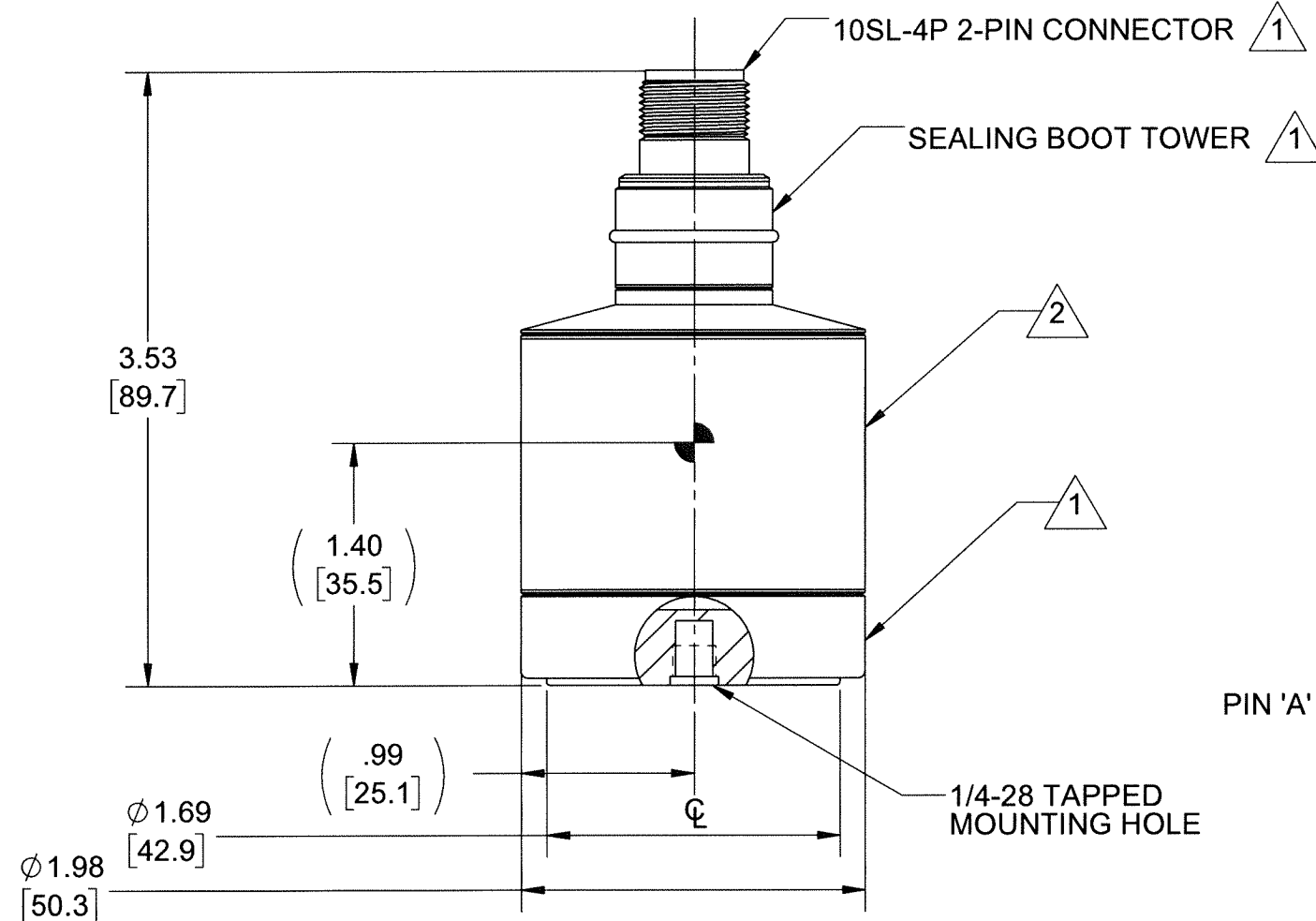
PROPRIETARY AND CONFIDENTIAL

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REVISIONS

| REV. | ECN | DESCRIPTION | BY/DATE | CHK | APPR |
|------|-------|--|-------------|-----|------|
| C | 14630 | CONVERTED TO SOLIDWORKS; ADDED CENTER OF GRAVITY MARKING | DP 10/18/18 | RA | LN |

| MODEL | SENSITIVITY |
|--------|-------------|
| 3191A | 5 V/G |
| 3191A1 | 10 V/G |



- 4. TEMPERATURE RANGE: -15°C TO +107°C (-60°F TO +225°F)
- 3. WEIGHT: 760 GRAMS
- 2 MATERIAL: 304L
- 1 MATERIAL: 316L

NOTES: UNLESS OTHERWISE SPECIFIED

| | | | | | | | |
|---|--|--|-------------------------|--|---------------------------------|---------------|------------------------|
| 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. | UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE: | | | | MASTER ONLY IF IN RED | | |
| | DECIMALS .XX ±.03 .XXX ±.010 | METRIC X ± 0.8 .XX ±0.25 | ANGLES ±1° | TITLE: OUTLINE/INSTALLATION DWG, MODELS 3191A & 3191A1 | | SIZE B | CAGE CODE 2W033 |
| | APPROVALS ORIG NC CHK NC APP PML | DATE 12/14/95 12/14/95 03/03/05 | DWG NO 127-3191A | | REV C | SHEET 1 OF 1 | |
| | ALL MACHINED SURFACES: \checkmark 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. | | DO NOT SCALE DRAWING | THIRD ANGLE PROJECTION USA | SCALE: 1:1 | | |

| | | |
|---------------------------------------|-----------------------------------|----------------------------|
| Model Number 3191A1 | PERFORMANCE SPECIFICATIONS | DOC NO PS3191A1 |
| IEPE SINGLE AXIS ACCELEROMETER | | REV F, ECN 15619, 03/05/20 |



- HERMETICALLY SEALED
- HIGH SENSITIVITY

PHYSICAL

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

| | ENGLISH | | SI | |
|------|----------------------------|----|----------------------------|-------|
| Type | 27 | oz | 775 | grams |
| | 2 -PIN, MIL-C-5015-10SL-4P | | 2 -PIN, MIL-C-5015-10SL-4P | |
| | 1/4-28, TAPPED HOLE | | 1/4-28, TAPPED HOLE | |
| | 300 SERIES | | 300 SERIES | |
| | CERAMIC | | CERAMIC | |
| | ANNULAR SHEAR | | ANNULAR SHEAR | |

PERFORMANCE

Sensitivity, ±5% [1]
Range for ± 5 Volts Output
Frequency Response, ±5%
±10%
±3db
Resonant Frequency
Linearity [2]
Maximum Transverse sensitivity
Strain Sensitivity @ 250µε
Coefficient of Thermal Sensitivity
Broad Band Resolution
Spectral Noise

| | ENGLISH | | SI | |
|------------------------------------|---------------|------------|---------------|----------------------------|
| Sensitivity, ±5% [1] | 10 | V/g | 1 | V/m/s ² |
| Range for ± 5 Volts Output | 0.5 | g peak | 5 | m/s ² |
| Frequency Response, ±5% | 0.08 to 1000 | Hz | 0.08 to 1000 | Hz |
| ±10% | 0.065 to 1500 | Hz | 0.065 to 1500 | Hz |
| ±3db | 0.045 to 3000 | Hz | 0.045 to 3000 | Hz |
| Resonant Frequency | > 8 | kHz | > 8 | kHz |
| Linearity [2] | ± 2 | % F.S. | ± 2 | % F.S. |
| Maximum Transverse sensitivity | 5 | % | 5 | % |
| Strain Sensitivity @ 250µε | 0.001 | g/µε | 0.01 | m/s ² /µε |
| Coefficient of Thermal Sensitivity | 0.07 | %/°F | 0.14 | %/°C |
| Broad Band Resolution | 3.0E-06 | g rms | 2.9E-05 | m/s ² rms |
| Spectral Noise | 1Hz | grms/v(Hz) | 3.0E-06 | m/s ² rms/v(Hz) |
| | 10Hz | grms/v(Hz) | 1.5E-06 | m/s ² rms/v(Hz) |
| | 100Hz | grms/v(Hz) | 6.0E-07 | m/s ² rms/v(Hz) |
| | 1000Hz | grms/v(Hz) | 2.9E-07 | m/s ² rms/v(Hz) |

ENVIRONMENTAL

Maximum Vibration
Maximum Shock
Operating Temperature Range
Seal

| | ENGLISH | | SI | |
|-----------------------------|-------------|--------|------------|-----------------------|
| Maximum Vibration | 50 | g peak | 491 | m/s ² peak |
| Maximum Shock | 100 | g peak | 981 | m/s ² peak |
| Operating Temperature Range | -60 to +250 | °F | -51 to 121 | °C |
| Seal | HERMETIC | | HERMETIC | |

ELECTRICAL

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

| | ENGLISH | | SI | |
|--------------------------|------------|--------|------------|--------|
| 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 | +11 to +13 | VDC | +11 to +13 | VDC |
| Discharge Time Constant | 3 to 7 | Sec | 3 to 7 | Sec |
| Electrical Isolation | 10 | GΩ,min | 10 | GΩ,min |

This family also includes:

| Model | Sensitivity (V/g) | Frequency Response (Hz) | Time Constant (Sec) | Operating Temp (°F) |
|-------|-------------------|-------------------------|---------------------|---------------------|
| 3191A | 5 | 0.08 to 1000 | 4 to 5 | -60 to +250 |

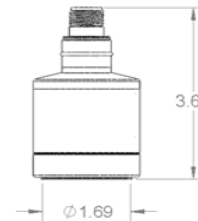
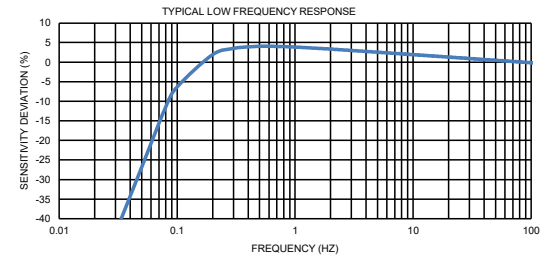
Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6176 mounting stud

Notes:

- [1] Measured at 100Hz, 0.25 Grms per ISA RP 37.2.
 - [2] Measured 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 amplifier.
 - [4] In the interest of constant product improvement, we reserve the right to change specifications without notice.
 - [5] In the interest of constant product improvement, we reserve the rights to change the 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.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3191A for more information.



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