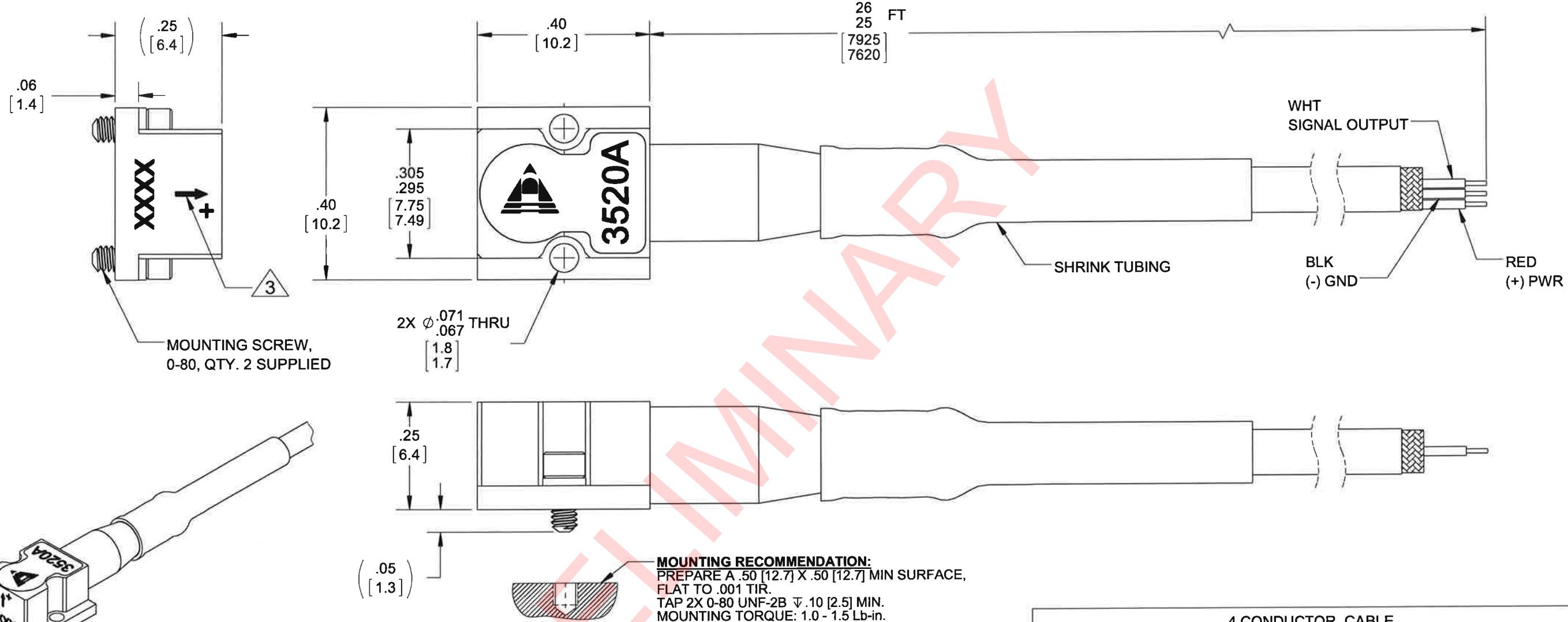


PROPRIETARY AND CONFIDENTIAL

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| MODEL | RANGE |
|--------|--------|
| 3520A | ±200g |
| 3520A1 | ±2000g |

| REVISIONS | | | | | |
|-----------|-----|---------------------|----------------|--------------------|------|
| REV. | ECN | DESCRIPTION | BY/DATE | CHK | APPR |
| X1 | | PRELIMINARY RELEASE | LN 09/14/15 | <i>[Signature]</i> | |



MOUNTING RECOMMENDATION:
 PREPARE A .50 [12.7] X .50 [12.7] MIN SURFACE,
 FLAT TO .001 TIR.
 TAP 2X 0-80 UNF-2B ∇.10 [2.5] MIN.
 MOUNTING TORQUE: 1.0 - 1.5 Lb-in.

| 4 CONDUCTOR, CABLE | |
|--------------------|---|
| CONDUCTORS | 30 AWG 7/38 TIN PLATED COPPER |
| TEMP | -55° C TO +120° C (-67° F TO +248° F) |
| VOLTAGE | 600 VOLTS |
| SHIELD | 40AWG TIN PLATED COPPER BRAID, 90% MIN COVERAGE |
| JACKET | SANTOPRENE, BLACK, .012/.015 WALL |
| DIAMETER | .105 MAX |

Signature: _____
 Print Name: _____
 Date: _____

- 3 ARROW INDICATES DIRECTION OF ACCELERATION FOR POSITIVE OUTPUT
 - 2. HOUSING MATERIAL: ANODIZED ALUMINUM, COLOR: BLUE
 - 1. WEIGHT: 3.0 GRAMS, MAX.
- 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.

ALL MACHINED SURFACES. ⁶³✓
 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 LN | 09/15/15 |
| CHK <i>[Signature]</i> | 9/16/15 |
| APP | |

DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES.
 DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS TOLERANCES ARE:

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE/INSTALLATION DWG, SERIES 3520A**

| | | | |
|------|-----------|-----------|-----|
| SIZE | CAGE CODE | DWG NO | REV |
| B | 2W033 | 127-3520A | X1 |

SCALE: 4:1 SHEET 1 OF 1

SINGLE AXIS ACCELEROMETER

REV X1, ECN -, 09/09/15



- **MINIATURE SIZE**
- **200 g FULL SCALE RANGE**
- **INTEGRAL CABLE**
- **IDEAL FOR IMPACT TESTING APPLICATIONS**

PHYSICAL

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

| | ENGLISH | | SI | |
|--------------------|---------------------------------|----|---------------------------------|-------|
| Weight, Max. | 0.11 | oz | 3.0 | grams |
| Connector Type | Integral cable, Flying Leads | | Integral cable, Flying Leads | |
| Mounting Provision | 2x 0-80 Screws | | 2x 0-80 Screws | |
| Housing Material | Anodized Aluminum | | Anodized Aluminum | |
| Sensing Element | Piezo ceramic | | Piezo ceramic | |
| Element Style | Planar shear | | Planar shear | |

PERFORMANCE

Sensitivity, ±10% [1]
Range for ± 5 Volts Output
Frequency Response, ±5%
Resonant Frequency
Linearity [2]
Maximum Transverse Sensitivity
Damping Ratio, Typ.
Warm-up time, Max.

| | ENGLISH | | SI | |
|--------------------------------|--------------|---------|--------------|---------------------|
| Sensitivity, ±10% [1] | 2.5 | mV/g | 0.25 | mV/m/s ² |
| Range for ± 5 Volts Output | ±200 | g | ±1962 | m/s ² |
| Frequency Response, ±5% | 0.04 to 1000 | Hz | 0.04 to 1000 | Hz |
| Resonant Frequency | > 25 | kHz | > 25 | kHz |
| Linearity [2] | ±3 | % F.S. | ±3 | % F.S. |
| Maximum Transverse Sensitivity | 3 | % | 3 | % |
| Damping Ratio, Typ. | 0.005 | | 0.005 | |
| Warm-up time, Max. | 2 | Minutes | 2 | Minutes |

ENVIRONMENTAL

Maximum Vibration
Maximum Shock
Temperature Range
Seal

| | ENGLISH | | SI | |
|-------------------|------------|-------|------------|-----------------------|
| Maximum Vibration | ±1000 | Gpeak | ±9810 | m/s ² peak |
| Maximum Shock | ±2000 | Gpeak | ±19620 | m/s ² peak |
| Temperature Range | -60 to 250 | °F | -51 to 121 | °C |
| Seal | Epoxy | | Epoxy | |

ELECTRICAL

Excitation Voltage
Insulation Resistance
(between cable shield and
mounting surface)

| | ENGLISH | | SI | |
|-----------------------|---------|-----|--------|-----|
| Excitation Voltage | 10 -15 | VDC | 10 -15 | VDC |
| Insulation Resistance | >100 | MΩ | >100 | MΩ |

This family also includes:

| Model | Sensitivity (mV/g) | Range (g pk) | Frequency Response (Hz) | Operating Temp (°F) |
|--------|--------------------|--------------|-------------------------|---------------------|
| 3250A1 | 0.25 | ±2000 | 0.02 to 4000 | -60 to 250 |
| | | | | |

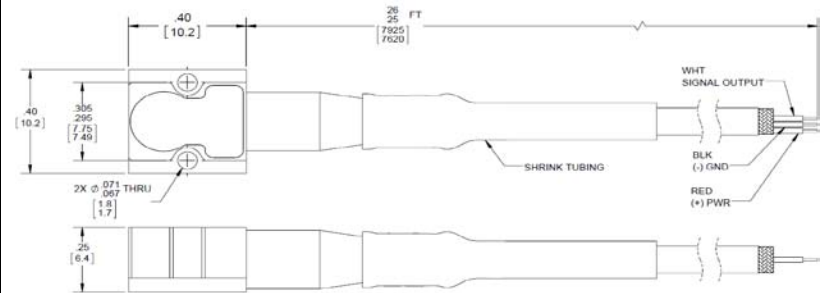
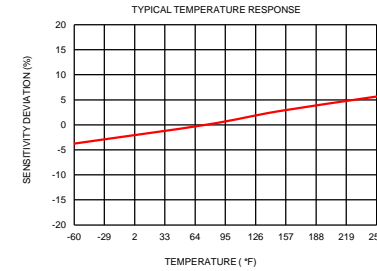
Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) 0-80 x 1/8 inch Mounting screws, Qty. 2
- 3) Flat washers, Qty. 2
- 4) Hex wrench, Qty. 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] 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 127-3520A for more information.

Signature: _____

Print Name: _____

Date: _____



| | | |
|----------------------------------|-----------------------------------|---------------------------|
| Model Number 3520A1 | PERFORMANCE SPECIFICATIONS | DOC NO PS3520A1 |
| SINGLE AXIS ACCELEROMETER | | REV X1, ECN -, 09/09/15 |



- **MINIATURE SIZE**
- **2000 g FULL SCALE RANGE**
- **INTEGRAL CABLE**
- **IDEAL FOR IMPACT TESTING APPLICATIONS**

PHYSICAL

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

| ENGLISH | | SI | |
|---------------------------------|----|---------------------------------|-------|
| 0.11 | oz | 3.0 | grams |
| Integral cable, Flying Leads | | Integral cable, Flying Leads | |
| 2x 0-80 Screws | | 2x 0-80 Screws | |
| Anodized Aluminum | | Anodized Aluminum | |
| Piezo ceramic | | Piezo ceramic | |
| Planar shear | | Planar shear | |

PERFORMANCE

Sensitivity, ±10% [1]
Range for ± 5 Volts Output
Frequency Response, ±5%
Resonant Frequency
Linearity [2]
Maximum Transverse Sensitivity
Damping Ratio, Typ.
Warm-up time, Max.

| | | | |
|--------------|---------|--------------|---------------------|
| 0.25 | mV/g | 0.025 | mV/m/s ² |
| ±2000 | g | ±19620 | m/s ² |
| 0.02 to 4000 | Hz | 0.02 to 4000 | Hz |
| > 25 | kHz | > 25 | kHz |
| ±3 | % F.S. | ±3 | % F.S. |
| 3 | % | 3 | % |
| 0.005 | | 0.005 | |
| 2 | Minutes | 2 | Minutes |

ENVIRONMENTAL

Maximum Vibration
Maximum Shock
Temperature Range
Seal

| | | | |
|------------|-------|------------|-----------------------|
| ±3000 | Gpeak | ±29430 | m/s ² peak |
| ±5000 | Gpeak | ±49050 | m/s ² peak |
| -60 to 250 | °F | -51 to 121 | °C |
| Epoxy | | Epoxy | |

ELECTRICAL

Excitation Voltage
Insulation Resistance
(between cable shield and
mounting surface)

| | | | |
|--------|-----|--------|-----|
| 10 -15 | VDC | 10 -15 | VDC |
| >100 | MΩ | >100 | MΩ |

Signature: _____

Print Name: _____

Date: _____

This family also includes:

| Model | Sensitivity (mV/g) | Range (g pk) | Frequency Response (Hz) | Operating Temp (°F) |
|-------|--------------------|--------------|-------------------------|---------------------|
| 3250A | 2.5 | ±200 | 0.04 to 1000 | -60 to 250 |
| | | | | |

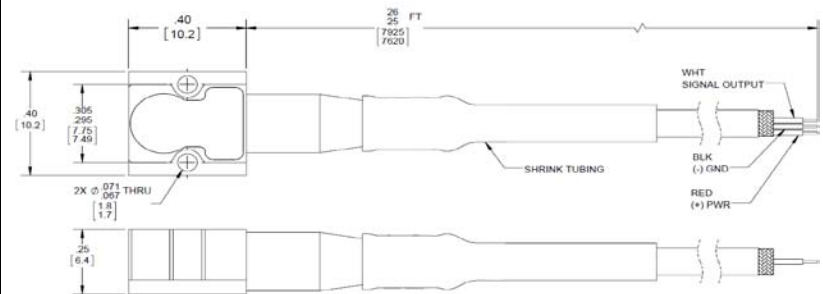
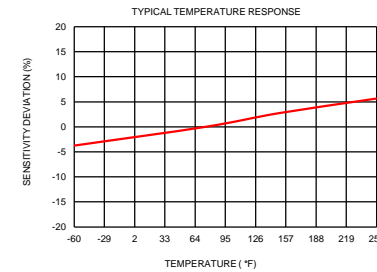
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