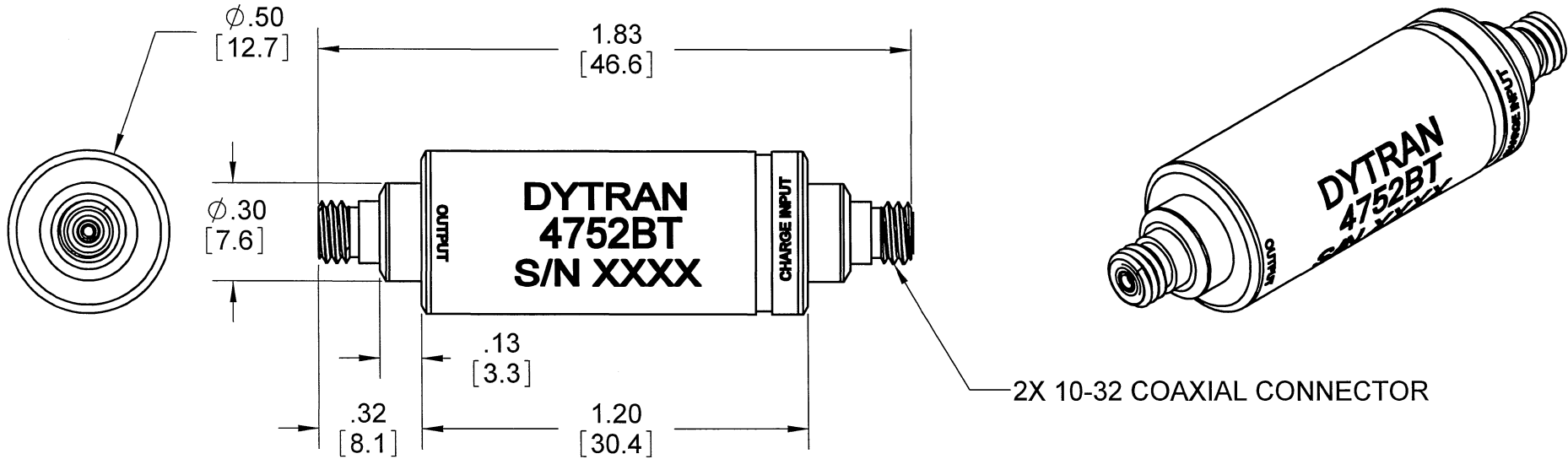


**PROPRIETARY AND CONFIDENTIAL**

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**REVISIONS**

| REV | ECN  | DESCRIPTION     | BY/DATE     | CHK        | APPR |
|-----|------|-----------------|-------------|------------|------|
| A   | 7638 | INITIAL RELEASE | RA 06/30/11 | <i>Ans</i> |      |



2. WEIGHT: 17 GRAMS MAX

1. CONNECTOR/HOUSING MATERIAL: 304L

NOTES: UNLESS OTHERWISE SPECIFIED

|  |           |   |
|--|-----------|---|
| USED ON  | NEXT ASSY | UNLESS OTHERWISE SPECIFIED:<br>INTERPRET DIM & TOL PER ASME Y14.5M - 1994.<br>REMOVE BURRS.<br>COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.<br>CHAM EXT THDS 45° TO MINOR DIA.<br>THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.<br>THDS PER MIL-S-7742.<br>DIMENSIONS APPLY AFTER FINISHING. |
| APPLICATION  |           |   |
| THIRD ANGLE PROJECTION USA   |           | UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS<br>TOLERANCES ARE:<br>INCHES    METRIC    ANGLES<br>.XX ± .03    .X ± 0.8    ± 1°<br>.XXX ± .010    .XX ± 0.25   |
| 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. |           |   |

|                      |                   |
|----------------------|-------------------|
| CONTRACT NO.         |                   |
| APPROVALS            | DATE              |
| ORIG                 | DV                |
| CHK                  | <i>Ans</i> 8/5/11 |
| APP                  |                   |
| APP                  |                   |
| DO NOT SCALE DRAWING |                   |

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

TITLE: **OUTLINE/INSTALLATION DRAWING, IN-LINE CHARGE AMP W/ TEDS, MODEL 4752BT**

|             |              |                   |              |
|-------------|--------------|-------------------|--------------|
| SIZE        | CAGE CODE    | DWG. NO.          | REV          |
| <b>A</b>    | <b>2W033</b> | <b>127-4752BT</b> | <b>A</b>     |
| SCALE: NONE |              | SOLIDWORKS        | SHEET 1 OF 1 |

|                               |                                  |                           |
|-------------------------------|----------------------------------|---------------------------|
| <b>Model Number</b><br>4752BT | <b>PERFORMANCE SPECIFICATION</b> | <b>DOC NO</b><br>PS4752BT |
|                               | <b>Charge Amplifier, In-line</b> | REV A, ECN 7638, 07/27/11 |



- FAST TURN ON TIME
- HIGH TEMPERATURE SENSORS
- MINIATURE PACKAGE
- TOLERATES LOW INSULATION RESISTANCE FROM SENSORS
- HERMETICALLY SEALED
- TEDS FEATURE

**This family also includes:**

| Model | Sensitivity (mV/pC) | Range (pC) | Resolution (µVrms) | Oper. Temp(°F) | TC |
|-------|---------------------|------------|--------------------|----------------|----|
|       |                     |            |                    |                |    |
|       |                     |            |                    |                |    |
|       |                     |            |                    |                |    |

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

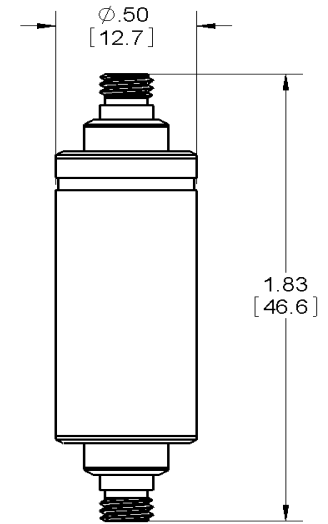
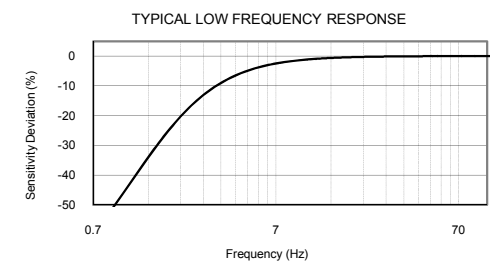
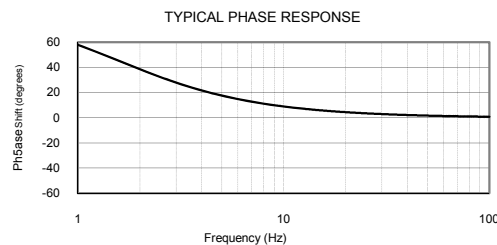
**Supplied Accessories:**

1) Accredited calibration certificate (ISO 17025)

**Notes:**

- [1] Glass to metal seal connector, type 10-32 coaxial receptacle.
- [2] Measured at 100 Hz, 1000 pF input.
- [3] Percent of full scale or any lesser range, zero based best-fit straight line method.
- [4] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the integral IC amplifier.
- [5] In the interest of constant product improvement, we reserve the right to change specifications without notice.

|   | ENGLISH                 |       | SI                      |                  |
|---|-------------------------|-------|-------------------------|------------------|
| <b>PHYSICAL</b>                         |                         |       |                         |                  |
| Weight, MAX                             | 0.60                    | oz    | 17                      | grams            |
| Input Connector [1]                     | Type 10-32              |       | Type 10-32              |                  |
|   | Material 304L           |       | Material 304L           |                  |
| Output Connector [1]                    | Type 10-32              |       | Type 10-32              |                  |
|   | Material 304L           |       | Material 304L           |                  |
| Housing                                 | Material 304L           |       | Material 304L           |                  |
|   | Isolation Case Grounded |       | Isolation Case Grounded |                  |
| <b>PERFORMANCE</b>                      |                         |       |                         |                  |
| Sensitivity, ±3% [2]                    | 10                      | mV/pC | 10                      | mV/pC            |
| Input Range                             | 500                     | pC    | 500                     | pC               |
| Frequency Range, ±5%                    | 5 to 40,000             | Hz    | 5 to 40,000             | Hz               |
| Output voltage range                    | +/-5                    | Vp    | +/-5                    | Vp               |
| Non-Linearity [3]                       | +/-1%                   | %F.S. | +/-1%                   | %F.S.            |
| Noise floor (5Hz to 10kHz)              | 40                      | µVrms | 40                      | µVrms            |
| Maximum Input Voltage                   | 30                      | Vp    | 30                      | Vp               |
| Minimum Source Resistance               | 300                     | kΩ    | 300                     | kΩ               |
| Maximum Source Capacitance              | 20000                   | pF    | 20000                   | pF               |
| Turn on Time (within 10% of bias)       | <5                      | sec   | <5                      | sec              |
| Thermal coefficient of sensitivity, Max | 0.01                    | %/°F  | 0.02                    | %/°C             |
| <b>ELECTRICAL</b>                       |                         |       |                         |                  |
| Supply Current Range [4]                | 4 to 20                 | mA    | 4 to 20                 | mA               |
| Compliance Voltage Range                | +18 to +30              | VDC   | +18 to +30              | VDC              |
| Output Impedance, Typ.                  | <100                    | Ω     | <100                    | Ω                |
| Output Bias Voltage                     | 12 to 15                | VDC   | 12 to 15                | VDC              |
| Discharge Time Constant                 | 0.1 to 0.3              | sec   | 0.1 to 0.3              | sec              |
| Polarity                                | Inverting               |       | Inverting               |                  |
| TEDS Feature                            | IEEE 1451.4             |       | IEEE 1451.4             |                  |
| <b>ENVIRONMENTAL</b>                    |                         |       |                         |                  |
| Shock Max                               | 2000                    | g pk  | 19620                   | m/s <sup>2</sup> |
| Vibration Max                           | 300                     | g pk  | 2943                    | m/s <sup>2</sup> |
| Operating Temperature                   | -40 to +185             | °F    | -40 to +85              | °C               |
| Seal                                    | Hermetic                |       | Hermetic                |                  |



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-4752BT for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.700.7880  
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