**OUTLINE/INSTALLATION DRAWING, 3316C SERIES**

**REVISIONS**

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<td>13509</td>
<td>NOTE 5: CONNECTOR MATERIAL: WAS: UNS K94610, ASTM F-15 IS: ALLOY X-750</td>
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**REVISED COMPONENTS**

- **5-40 UNC-2B Ø .12**
- **ϕ .20 Ø .02**

**Recommended Mounting Preparation:**
- Tap 10-32 x .140 min deep. Assure the surface flatness better than .001 TIR.
- Mounting Torque: 6-8 lb-in

**Notes:**
- Sensitivity: 1 to 2 pC/g
- Weight: 6 grams max
- Arrow designates acceleration direction for positive output
- Housing material: Alloy 600
- Connector material: Alloy X-750
- Maximum operating temperature: 900°F (482°C)
- Mates with Dytran Model 60016AXX hardline cable & 6979AXX hardline insulated cable
- 10-32 UNF-2A coaxial connector

**Material and Finish:**
- Coaxial
- .19 [4.7]

**Approvals:**
- Date: 09/2018
- Dytran, 3316C Series
- Stainless steel

**Construction:**
- Machined surfaces
- Welding symbols per AWS A2.4
- Dimensions in inches
- Tolerances are ± .003

**Specifications:**
- UNLESS OTHERWISE SPECIFIED:
  - Dimensions in inches
  - Tolerances are ± .003
  - Breaking sharp edges .005 to .010
  - Welding symbols per AWS A2.4

**Contract No.:**
- Dytran Instruments, Inc.

**Title:**
- Master

**Scale:**
- None

**Dimensions:**
- Metric

**Approvers:**
- Date: 12/06/11
- Dytran

**Application:**
- USA

**Diagram Notes:**
- Do not puncture
- Silver window
- Chamfer external thds 45° to minor dia.
- Thd lengths and depths are for min full thds
- Thds per MIL-S-7742
- Dimensions apply after finishing.
- Total runout within .005
- Break sharp edges .005 to .010
- Welding symbols per AWS A2.4
- Dimensions in brackets [ ]

**Break Sharp Edges:**
- .005 to .010

**Contract No.:**
- 127-3316C

**Sheet 1 of 1**
Model Number 3316C

PERFORMANCE SPECIFICATION

SINGLE AXIS CHARGE MODE ACCELEROMETER

This family also includes:

- MINIATURE SIZE
- HERMETICALLY SEALED
- HIGH TEMPERATURE OPERATION

- Model Number DOC NO
  3316C PS3316C
  REV J, ECN 15602, 03/02/20

This family also includes:

- Model Sensitivity (pC/g) Output Polarity Temperature (°F)
  3316C1 1 to 2 Negative when mounted on its base -60 to +900

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

**Supplied Accessories:**

1) Accredited calibration certificate (ISO 17025)
2) Model 6084 mounting stud (5-40 to 10-32), qty 1
3) Mates with Dytran cable 60016AXX hardline cable and 6979AXX hardline insulated cable.
4) Low frequency response and phase response are a function of the discharge time constant of the charge amplifier used.
5) 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 over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.
6) Recommended charge amplifier: Dytran Models 4753B & 4754B, Series.
7) Isolation mounting base model 6759 (triaxial) and 6998 (uniaxial) are available.
8) U.S. Patent number US 8,375,793 B2 applies to this unit.
9) This parameter depends on the gain settings of the charge amplifier used.

**PHYSICAL**

- Weight, Max: 0.21 oz 6.0 grams
- Size: Square x Height 0.40 x 0.36 Inches 10.16 x 9.10 mm
- Mounting Provision: Tapped Hole 5-40 UNC-2B 5-40 UNC-2B
- Element Style: Material Single Crystal Single Crystal
- Type: Planar Shear Planar Shear

**PERFORMANCE**

- Sensitivity [1] 1 to 2 [9] G's 0.10 to 0.20 [9] pC/m/s²
- Range F.S for ±5 Volts Output [9]
- Frequency Range, ±10% [4] to 10000 Hz [4] to 10000 Hz
- Resonant Frequency > 45 kHz > 45 kHz
- Capacitance 120 pF 120 pF
- Linearity [2] ± 1% ± 1% % F.S.
- Maximum Transverse Sensitivity 5 % 5 %
- Strain Sensitivity, Max 0.003 g/με 0.03 m/s²/με
- Insulation resistance, (Connector pin to case) at 75 °F > 5 MΩ at 75 °F > 5 MΩ
- at 900 °F > 0.25 MΩ at 900 °F > 0.25 MΩ
- Coefficient of Thermal Sensitivity 0.02 %/°F 0.02 %/°F
- Ground Isolation Case Ground Case Ground

**ENVIRONMENTAL**

- Maximum Vibration ±6000 G, peak ±6886 G, peak m/s², peak m/s², peak
- Maximum Shock ±10000 G, peak ±49050 G, peak m/s², peak m/s², peak
- Temperature Range -60 to +900 °F -51 to +482 °C
- Seal Hermetic Hermetic
- Radiation Exposure Limit (Integrated Neutron Flux) 1.6E+10 N/cm² 1.0E+10 N/cm²
- Radiation Exposure Limit (Integrated Gamma Flux) 1.0E+08 rad 1.0E+08 rad

**Notes:**

[1] Measured at 100Hz, 1 Grms per ISA RP 37.2
[4] Low frequency response and phase response are a function of the discharge time constant of the charge amplifier used.
[5] 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 over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.
[7] Isolation mounting base model 6759 (triaxial) and 6998 (uniaxial) are available.
[9] This parameter depends on the gain settings of the charge amplifier used.

**Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3316C for more information.**

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