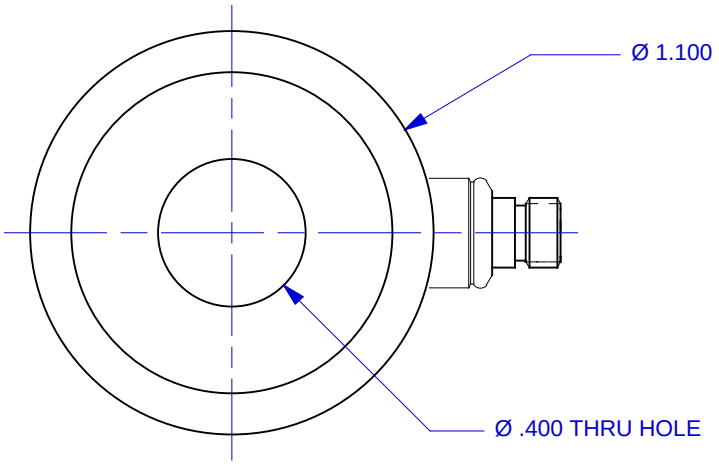


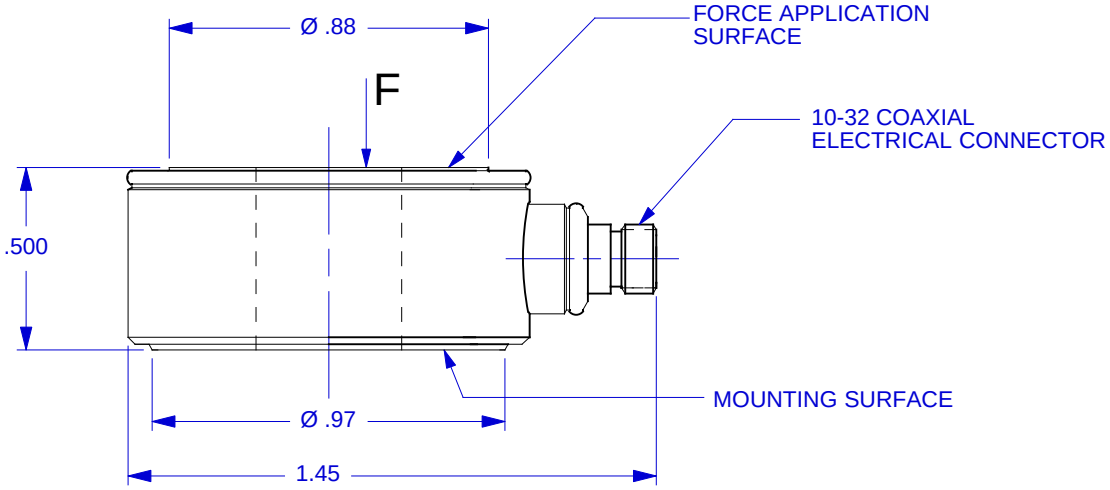


4. WEIGHT: 50 GRAMS.
3. ENVIRONMENTAL SEAL: HERMETIC.
2. MATERIAL: LOAD-BEARING SURFACES: HARDENED 17-4 PH STAINLESS STEEL. HOUSING AND CONNECTOR: 300 SERIES STAINLESS STEEL.
1. POLARITY: POSITIVE-GOING WITH COMPRESSION.

**EXCEPT AS OTHERWISE NOTED**

ALL DIMENSI0NS IN INCHES
TOLERANCE: .XXX = ±  .XX= ±

SURFACE FINISH EXCEPT AS NOTED √

BREAK EDGES TO DEBURR RADIUS OR CHAMFER MAX

△ THESE DIAS ⊙ TO T.I.R.

FILLETS - MAX RAD.

DYTRAN INSTRUMENTS, INC. CHATSWORTH, CA.

| | | | | | |
|---|---|---|---|---|---|
| SCALE 2X | REV - | DATE - | ECN - | | |
| DATE 12/17/01 | PART NO. MODEL SERIES 1203V | | | | |
| DRAWN N.C. | CHECKED R.A. | MAT'L | | | |
| APPROVED | NEXT ASSEMBLY | USED ON SERIES 1203V | | | |

TITLE
**OUTLINE/INSTALLATION DRAWING, MODEL SERIES 1203V FORCE SENSORS**

DWG NO. **127-1203V**

SHEET 1 OF 1

## SPECIFICATIONS, MODEL SERIES 1203V DYNAMIC FORCE SENSOR

**SPECIFICATIONS BY MODEL**

| MODEL | SENSITIVITY (mV/Lb) | COMPRESSION RANGE (Lbs) | MAXIMUM COMPRESSION (Lbs) | DISCH. TC (Sec) | RESOLUTION (Lb, RMS) |
|---|---|---|---|---|---|
| **1203V1** | 50.0 | 100 | 200 | 90 | .00014 |
| **1203V2** | 10.0 | 500 | 1000 | 450 | .0007 |
| **1203V3** | 5.0 | 1000 | 5000 | 850 | .0014 |
| **1203V4** | 1.0 | 5000 | 10,000 | 1800 | .007 |
| **1203V5** | 0.5 | 10000 | 15,000 | 1800 | .014 |

**COMMON SPECIFICATIONS**

| | | |
|---|---|---|
| STIFFNESS | 20.0 | Lb/µ In |
| MOUNTED RESONANT FREQUENCY, UNLOADED | 75 | kHz |
| LINEARITY [1] | ±1 | % F.S. |
| F.S.OUTPUT VOLTAGE, NOM. | 5 | VOLTS |
| MAX SHOCK, UNLOADED | 10,000 | G's |
| MAX. VIBRATION, UNLOADED | ±5,000 | G's, PEAK |
| COEFFICIENT OF THERMAL SENSITIVITY | .03 | %/$^{o}$F |
| TEMPERATURE RANGE | -100 to +250 | $^{o}$F |
| ENVIRONMENTAL SEAL | HERMETIC WELDED, GLASS-TO-METAL SEAL | |
| SUPPLY CURRENT / VOLTAGE RANGE [2] | 2 to 20 / +18 to +30 | mA / VDC |
| OUTPUT IMPEDANCE | 100 | OHMS |
| MATERIAL, LOAD BEARING SURFACES | 17-4PH, HARDENED | STAINLESS STEEL |
| MATERIAL, HOUSING AND CONNECTOR | 316L | STAINLESS STEEL |
| WEIGHT | 50 | GRAMS |
| SIZE (O.D. X I.D. X THICKNESS) | Ø1.1 X Ø.400 X .500 | INCHES |
| MOUNTING PROVISION | Ø.400 THRU HOLE AT CENTER | |
| ELECTRICAL CONNECTOR | RADIALLY MOUNTED, WITH 10-32 MICRO COAX CONNECTOR | |

[1] Percent of full scale or of any lesser range, zero based best fit straight line method.
[2] Power these instruments **only** with constant current type power units. **Do not** connect to a source of voltage without current limiting. This **will destroy** the integral IC amplifier.