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AD2.5D-100 SPECIFICATIONS

The AD2.5D is a compact six-axis force transducer with a side connector and threaded attachment points on its top and bottom surfaces. The body of the transducer is manufactured from high strength aluminum with an anodized finish. A waterproof version the <u>SPC2.5D</u> or <u>SPI2.5D</u> is available for use in tow tanks, ocean engineering, and other underwater applications.



Units: Metric V Capacity: 445 N V

| 63.5 x | 63.5 mm | | | | | | |
|--------------------------|--|---|---|--|--|--|---|
| 0.455 Kg. | | | Sensing elements | | | Strain gage bridge | |
| Fx, Fy, Fz, Mx, My, Mz | | | Amplifier | | | Required | |
| Aluminum | | | Analog outputs | | | 6 Channels | |
| -17.78 to 51.67°C | | | Digital outputs | | | None | |
| 10V maximum | | | Crosstalk | | | < 2% on all channels | |
| ± 0.2% full scale output | | | Fx, Fy, Fz non-linearity | | | ± 0.2% full scale output | |
| Fx | Fy | Fz | Units | Mx | Му | Mz | Units |
| 222 | 222 | 445 | N | 11 | 11 | 5.6 | N-m |
| 5.4 | 5.4 | 1.35 | µv∕v-N | 266 | 266 | 213 | µv/v-N-m |
| - | - | - | Hz | 300 | 300 | - | Hz |
| 17.53 | 17.53 | 298 | N/m | - | - | 0.0226 | N-m/rad |
| To deterr | mine the reso | olution of ye | our system, plec | se use our <u>(</u> | <u>Output C</u> | alculator. | |
| | 0.455 Fx, Fy, Alumi -17.78 10V m ± 0.2% Fx 222 5.4 - 17.53 | Fx, Fy, Fz, Mx, My, M Aluminum -17.78 to 51.67°C 10V maximum ± 0.2% full scale ou Fx Fy 222 222 5.4 5.4 - - 17.53 17.53 | 0.455 Kg. Fx, Fy, Fz, Mx, My, Mz Aluminum -17.78 to 51.67°C 10V maximum ± 0.2% full scale output Fx Fy Fz 222 222 445 5.4 5.4 1.35 1 17.53 17.53 298 | 0.455 Kg. Sensing e Fx, Fy, Fz, Mx, My, Mz Amplifier Aluminum Analog o -17.78 to 51.67°C Digital ou 10V maximum Crosstalk $\pm 0.2\%$ full scale output Fx, Fy, Fz Fx Fy Fx Fy Fz 0.455 Kg. Analog o Fx, Fy, Fz 10V maximum Crosstalk E $\pm 0.2\%$ full scale output Fx, Fy, Fz Fx Fy Fz Units 222 222 445 N 5.4 5.4 1.35 $\mu v / v - N$ - - Hz Hz 17.53 17.53 298 N/m | Sensing elements Fx, Fy, Fz, Mx, My, Mz Amplifier Aluminum Crosstalk -17.78 to 51.67° C Digital outputs 10V maximum Crosstalk $\pm 0.2\%$ full scale output Fx, Fy, Fz non-lineari Fx Fy Fz Units Mx 222 222 445 N 11 5.4 5.4 1.35 µv /v-N 266 - - Hz 300 17.53 17.53 298 N/m - | Sensing elements Fx, Fy, Fz, Mx, My, Mz Amplifier Aluminum Analog outputs -17.78 to 51.67° C Digital outputs $10V$ maximum Crosstalk $\pm 0.2\%$ full scale output Fx, Fy, Fz non-linearity Fx Fy Fz Units Mx My 222 222 445 N 11 11 5.4 5.4 1.35 $\mu v / v$ -N 266 266 - - - Hz 300 300 17.53 17.53 298 N/m - - | O.455 Kg.Sensing elementsStrain gasFx, Fy, Fz, Mx, My, MzAmplifierRequiredAluminumAnalog outputs6 Channe-17.78 to 51.67°CDigital outputsNone10V maximumCrosstalk< 2% on a |

Notes:

The listed natural frequency is the lowest natural frequency for the force sensor and will dominate.

Published specifications subject to change without notice.

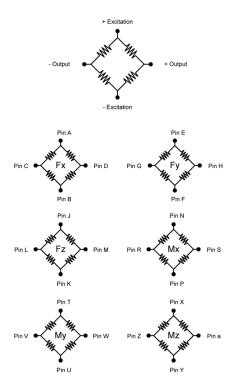
Last modified:2016-08-23

TECHNICAL DRAWINGS

Footprint Drawing

Fx

63.5 2.50 **BOTTOM SURFACE** TOP SURFACE Fy 🛓 ¥ Fy Ì (É Ø [60.3] [63.5] 62.7 \otimes ►z Ø**2.38** Ø**2.50** Ø**2.47** Fx Ģ ø 26.5 Ø1.04 28.6 [mm] in. THRU 1.13 8X 10-32 UNF $\overline{\rm V}$.40 [10.2] ON 2.00 [50.8] DIA BOLT CIRCLE BOTH TOP AND BOTTOM SURFACES



Electrical Drawing

Bridge Fz = 700 ohms Bridges Fx; Fy; Mx; My; Mz = 350 ohms **Connector Type:** Souriau 851-02E16-26P50-44

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