

UDW3-500 SPECIFICATIONS

The UDW3 is designed for accurate underwater force measurement. The body of the load cell is manufactured from heat treated 17-4 PH stainless steel. The mounting surfaces are equipped with threaded holes, and the unit is sealed and filled with mineral oil. A pressure compensation bladder is used to equalize the internal and external pressures. This allows operation underwater with little effect on the force and moment outputs due to water pressure.



Units: Capacity:

| | | | |
|------------------------------|--------------------------|---------------------------------|--------------------------|
| Dimensions(LxDia) | 88.9 x 75.44 mm | IP Rating | IP68 * |
| Weight | 2.05 Kg. | Sensing elements | Strain gage bridge |
| Channels | Fx, Fy, Fz, Mx, My, Mz | Amplifier | Required |
| Body Material | Stainless Steel | Analog outputs | 6 Channels |
| Temperature range | -17.78 to 51.67°C | Digital outputs | None |
| Excitation | 10V maximum | Crosstalk | < 2% on all channels |
| Fx, Fy, Fz hysteresis | ± 0.2% full scale output | Fx, Fy, Fz non-linearity | ± 0.2% full scale output |

| Channel | Fx | Fy | Fz | Units | Mx | My | Mz | Units |
|-------------------|-------|-------|------|--------|-------|-------|-------|----------|
| Capacity | 1112 | 1112 | 2223 | N | 56 | 56 | 28 | N-m |
| Sensitivity | 1.08 | 1.08 | 0.27 | µv/v-N | 53.16 | 53.16 | 42.53 | µv/v-N-m |
| Natural frequency | - | - | - | Hz | - | - | - | Hz |
| Stiffness (X 105) | 105.2 | 105.2 | 1490 | N/m | - | - | 0.113 | N-m/rad |

Resolution *To determine the resolution of your system, please use our [Output Calculator](#).*

Notes: * The transducer is tested in potable tap water at a pressure of 100 psi (690 kPa) and a temperature of 70°F (21°C) for 8 hours. Any use exceeding these conditions will void the warranty.

Published specifications subject to change without notice.

Last modified:2018-03-22

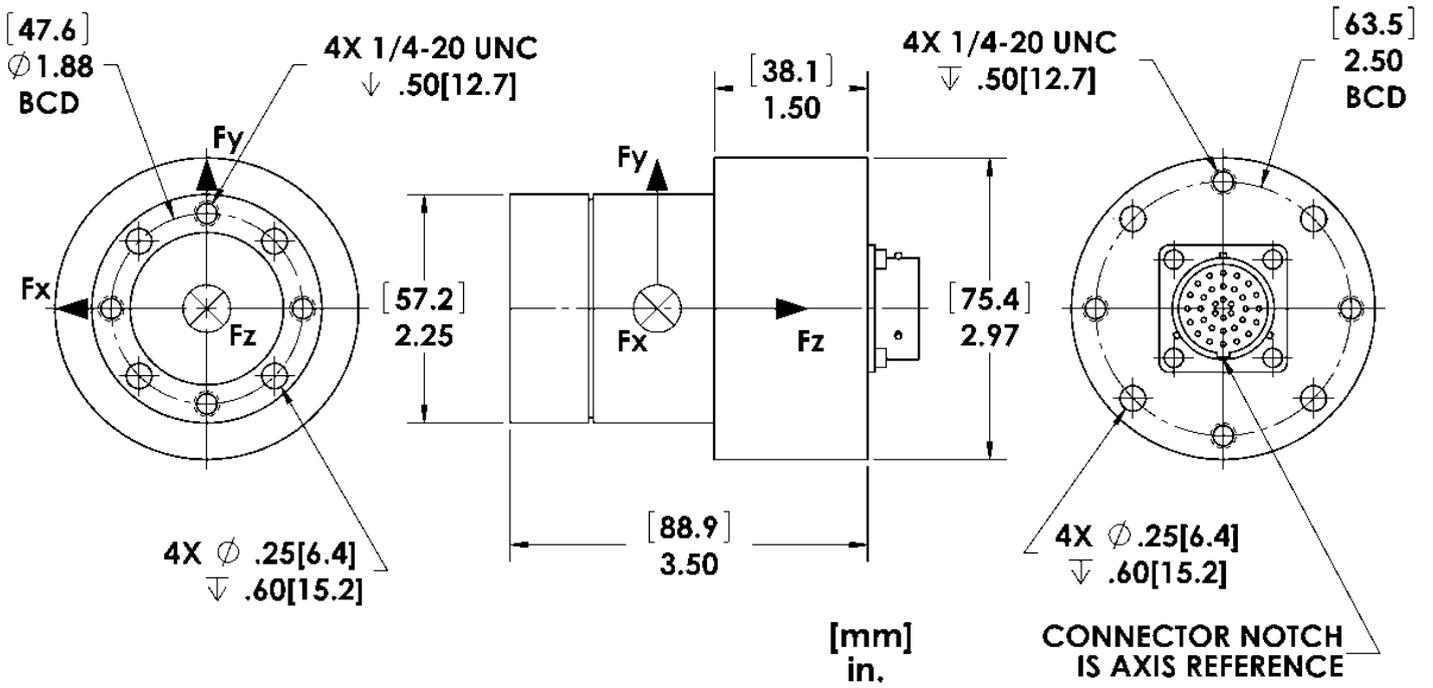
TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

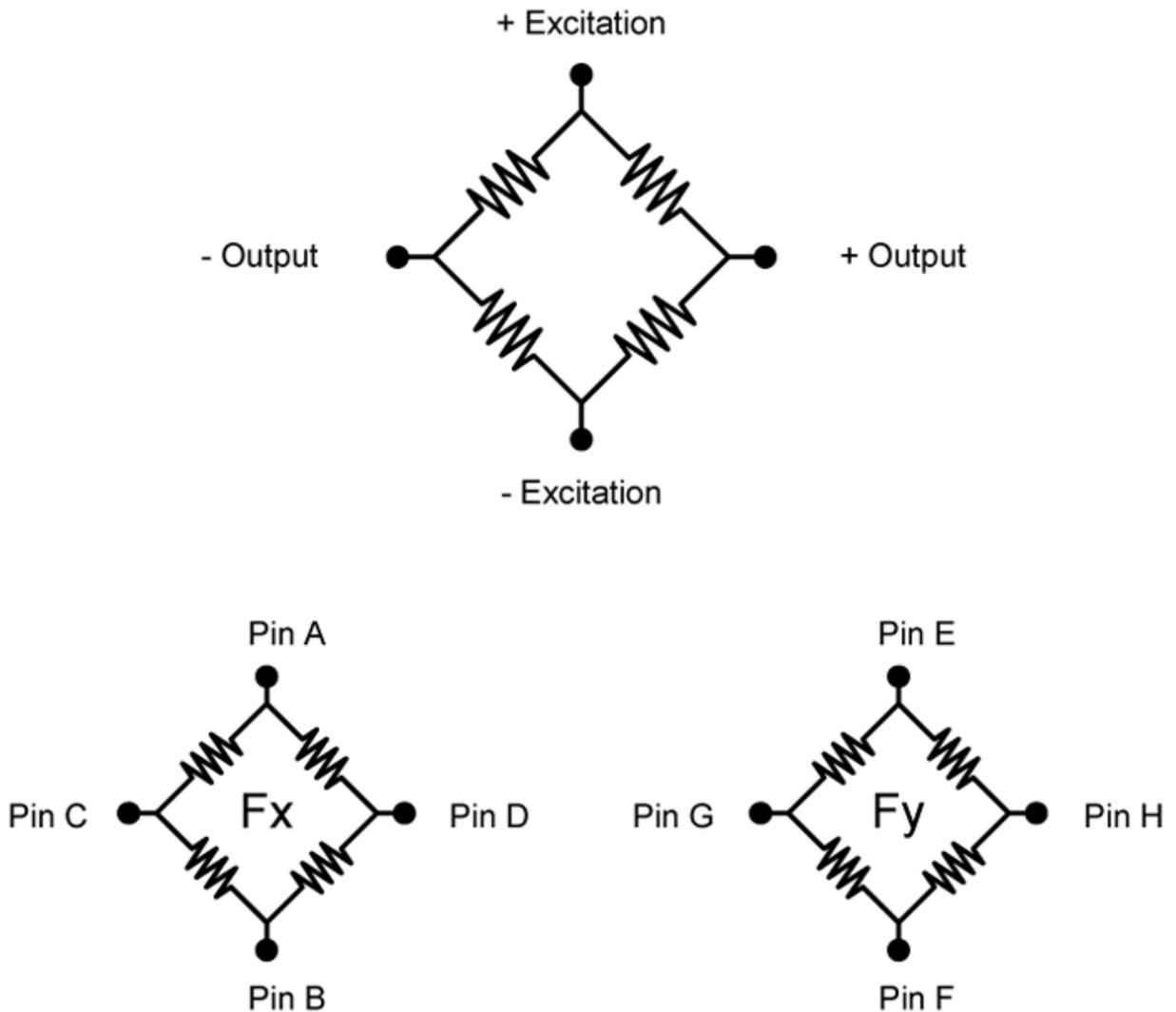
Electrical Drawing (click on image to enlarge)

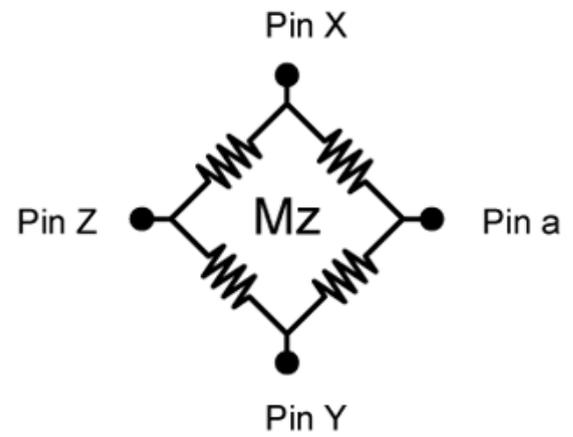
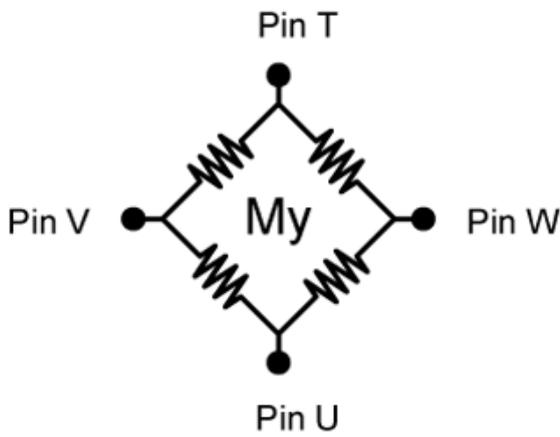
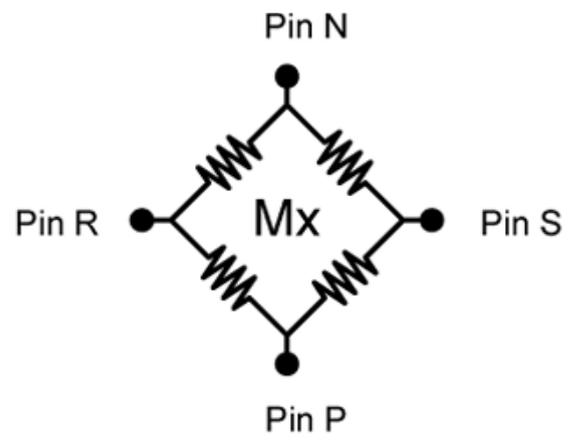
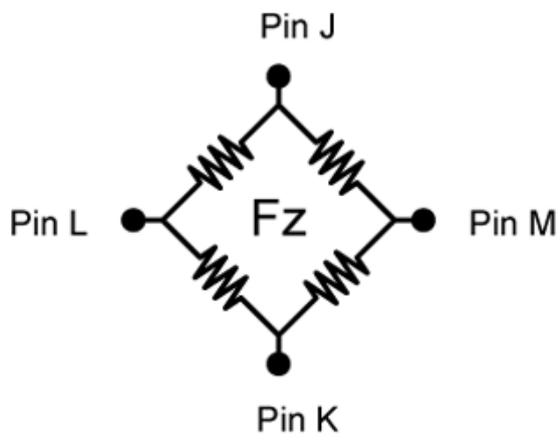
TECHNICAL DRAWING

Footprint Drawing



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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