

SUBMERSIBLE VEHICLE DEPTH TRANSDUCER

Underwater vehicles require unique configurations for instrumentation and pressure sensing. When our customers asked, we delivered. The **SST 74X-UV Series** transducers are compact, shallow diaphragm sensors with a configurable flange design that allows outboard or inboard bulkhead installation. Designed to provide highly accurate depth measurement of submersible vehicles, our unique design provides superior sensing element constraint and an easily cleanable wetted area.

Boasting $\pm 0.5\%$ FSO BFSL accuracy, digital and analog outputs, saltwater and freshwater compatible designs, low mass, and high shock and vibrate resistance, the **SST 74X-UV Series** may be the best pressure sensor ever built.

FEATURES

- 0.75" Max OD
- 15-5 PH SS or Inconel wetted parts
- All welded Hermetic construction
- High vibration and shock resistant
- Low Mass <90 grams
- ASIC-based output

APPLICATIONS

- Unmanned Underwater Vehicles (UUVs)
- Saltwater and freshwater depth measurement



MECHANICAL CHARACTERISTICS

| | |
|--|--|
| Standard Ranges | 0-100, -250, -500, -750, -1000, -1500, -2000, -3000, -5000, -7000, -10000 PSIA / PSIG / PSIS |
| Proof Pressure | 1.5x range |
| Burst Pressure | 2.5x range |
| Operating Media | Fluids and gases compatible with 15-5 PH or Inconel |
| Enclosure | Body of stainless steel |
| Pressure Fitting | Flange mount |
| Natural Frequency of Sensing Diaphragm | 2 kHz at 50 psi to 347 kHz at 40,000 psi |
| Acceleration Response | Less than $\pm 0.15\%$ FS/G at 50 psi to $\pm 0.0015\%$ FS/G at 10,000 psi |
| Mass | Less than 90 grams |

ELECTRICAL CHARACTERISTICS

OUTPUTS

| | | |
|--------------------|------------------------------|-----------------------------------|
| Analog/Excitation | 4-20mA Current Loop: | 9-36 Vdc for 2-wire |
| | Non-Isolated Voltage Output: | 8-40 Vdc, 3- or 4-wire (standard) |
| Digital/Excitation | RS-232: | 15-40 Vdc |
| | I ² C: | 5 Vdc |

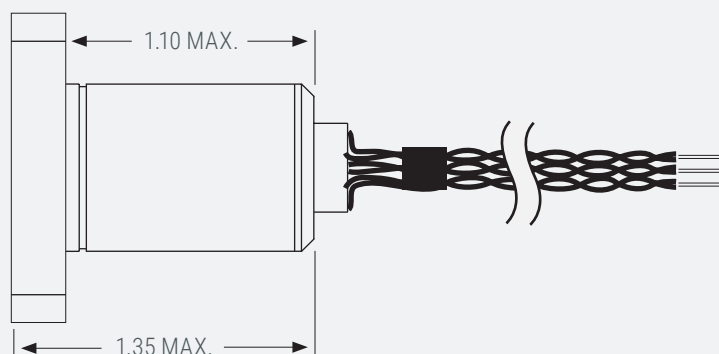
COMMON

| | | |
|------------------------|---|--|
| Insulation Resistance | > 100 megohms at 50 Vdc at 70°F | |
| Electrical Termination | Integral 6" Twisted Leads, 3113H-10-6P or M12 connector | |
| | Optional electrical terminations available | |

ENVIRONMENTAL CHARACTERISTICS

| | | |
|-------------------------------|--|--|
| Compensated Temperature Range | -40°F to +155°F | |
| | Options available, consult factory | |
| Operating Temperature Range | -65°F to +250°F (Ambient and Process Temperature) | |
| | Note: Maximum Operating Temperature for digital output is +185°F | |

DIMENSIONS (INCHES)



PERFORMANCE

STATIC ACCURACY

±0.5% FSO BFSL
 ±0.3% FSO BFSL
 (options available: consult factory)

RESOLUTION

Analog: Infinite
 Digital: Options available

ZERO BALANCE

±0.5% FSO

SPAN

±0.5% FSO at 70°F < ±0.25% FSO

AVAILABLE OPTIONS

- Optional Alarm Setting (digital only)
- Multi-Temperature Thermal Characterization
- Alternate Flange Configurations (consult factory)

THERMALS

Zero: 0.005% FSO/F
 Span: ±0.005% FSO/F
 (options available: consult factory)

DIMENSIONS (INCHES)

