

AMERICAN AUTOMATED CONTROLS

SUBMERSIBLE LEVEL TRANSDUCERS

FEATURES

- Custom Level Ranges up to 700 ft (210 m) H₂O
- Accuracy of up to $\pm 0.05\%$
- Analog Outputs of 4-20 mA, 0-5 VDC or mV
- Welded 316 SS or Titanium Construction
- Optional Lifetime Lightning Protection
- Optional Temperature Measurement Output
- Custom Cable Lengths



APPLICATIONS

- Well Monitoring
- Level Control
- Oceanographic Research
- Lift Stations
- Ground Water Monitoring
- Surface Water Monitoring
- Slug Tests
- Pump Control
- Soil Remediation

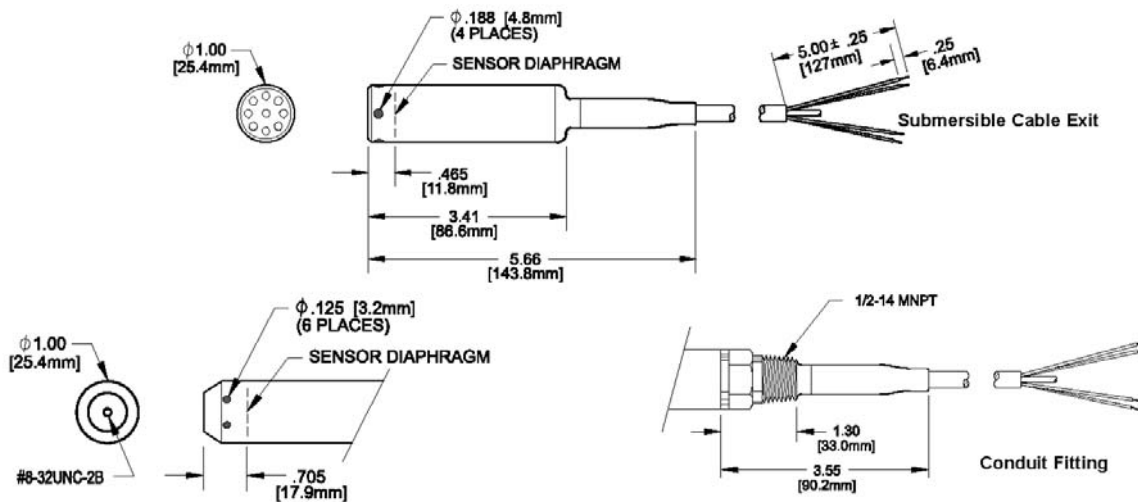
These submersible hydrostatic level transducers are specifically designed to meet the rigorous environments encountered in liquid level measurement and control. They can be configured to perform to specifications under most adverse, reactive conditions.

The transducers utilize a highly accurate pressure sensor assembly specifically designed for hostile fluids and gases. The assembly is integrated with supporting electronics in a durable waterproof housing constructed of stainless steel or titanium. The attached electrical cabling is designed to protect against the elements and to prevent measuring errors due to cable elongation. The cabling includes a unique water block feature that self-seals in the event of accidental cuts to the cable. Each transducer comes standard with vent filter that prevents moisture from entering the vent tube for at least one year without maintenance, even in the most humid environments.

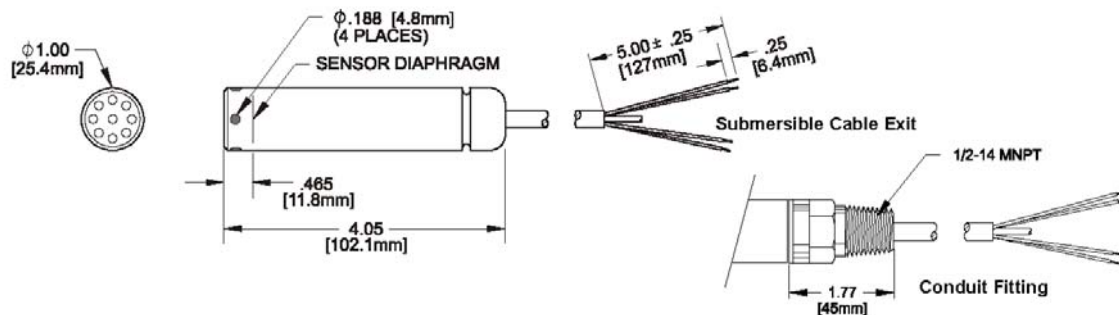
These units are designed for installation in a Class I, Division 1, Groups A, B, C, and D, Class II, Division 1, Groups E, F and G, Class III, Division 1 hazardous location when connected to appropriate apparatus. The transducers are type approved by the American Bureau of Shipping (ABS), are UL, CUL, and FM approved, have a IP 68 and NEMA 6P housing protection rating, and are CE compliant to EN 61000-6-4:2001 and EN 61000-6-2:2001.

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Submersible Level Transducers – Technical Data

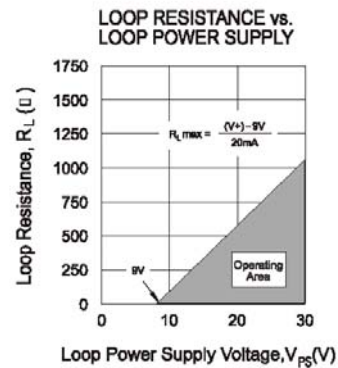


Molded Cable Seal



Gland Cable Seal

ELECTRICAL TERMINATION		
22AWG CONDUCTORS IN A SHIELDED CABLE WITH VENT TUBE		
4-20 mA	RED BLACK	+ EXCITATION - EXCITATION
0-5 VDC	RED BLACK WHITE	+ EXCITATION - EXCITATION + SIGNAL
mV	RED BLACK WHITE GREEN	+ OUTPUT + EXCITATION - EXCITATION - OUTPUT
ALL	DRAIN WIRE	SHIELD



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Submersible Level Transducers – Specification Info

MODEL	SUBMERSIBLE LEVEL TRANSDUCER
7 3 5	±0.05% FSO Static Accuracy
7 3 0	±0.10% FSO Static Accuracy
7 2 0	±0.25% FSO Static Accuracy
7 1 0	±0.50% FSO Static Accuracy
7 0 0	±1.00% FSO Static Accuracy
↓ ↓ ↓	MATERIAL
	S Stainless Steel
	T Titanium
↓	REFERENCE FORMAT
	1 Vented gage
	3 Sealed gage (except 735)
	4 Absolute (except 735)
↓	OUTPUT
	2 mV, non-ratiometric
	3 0-5 VDC
	4 4-20 mA
	5 mV, ratiometric (not IS approved)
	6 4-20 mA, temp. measurement option, -20 to 60°C (not IS approved)
	7 4-20 mA, temp. measurement option, 0 to 50°C (not IS approved)
	E Custom VDC output
↓	PRESSURE CONNECTION
	A Open-face nose cap
	B Closed-face nose cap
	E Piezometer nose cap
	2 1/4" - 18 NPT male fitting
	7 1/2" - 14 NPT male fitting
	F G 1/4 male fitting, BSP
	G M14 x 1.5 – 60° Internal cone male fitting
↓	ELECTRICAL CONNECTION
	0 Molded cable seal
	4 1/2" - 14 NPT male conduit fitting with molded cable seal
	A Gland cable seal
	B 1/2" - 14 NPT male conduit fitting with gland cable seal
↓	LIGHTNING PROTECTION
	A None
	B Lightning Protection
↓	LEVEL RANGE (at MAX output)¹
	x x x . x x x
	↓ ↓ ↓ ↓ ↓ ↓ ↓
	LEVEL RANGE (at MIN output)¹
	x x x . x x x
	↓ ↓ ↓ ↓ ↓ ↓ ↓
	MOISTURE PROTECTION
	A None (sealed/absolute only)
	B Vent Filter
	C Aneroid Bellows
↓	CABLE TYPE
	1 Polyurethane
	2 Tefzel
↓	CABLE LENGTH
	x x x x (in feet)
	↓ ↓ ↓ ↓
	LABEL²
	A psi
	B ft H ₂ O
	C m H ₂ O
	↓

Notes:

- 1 The part number requires two level range limits, corresponding to the maximum and minimum analog outputs of the transducer, to be specified in **pounds per square inch (psi)** to three decimal places. The lower level range is typically 000.000 unless otherwise required. For reverse output requirements, enter the lower level range for the maximum output signal and the upper range for the minimum output. Use the following conversion factors:
 Examples: 10 ft H₂O / 2.3073 = 4.334 psi (enter 004.334 in the part number)
 m H₂O / 0.703265 = psi 10m H₂O / 0.703265 = 14.219 psi (enter 014.219 in the part number)
 For sealed gage reference add local atmosphere when converting to psi. Contact PSI for assistance.
 Example: 10 ft H₂O / 2.3073 + 14.7 = 19.034 psi (enter 019.034 in the part number)
- 2 Units of measure on standard PSI label. Contact PSI if private labeling is required.

Warranty: The Series 700 product is warranted against defects in material and workmanship for 2 years from date of shipment. Products not subjected to misuse will be repaired or replaced. THE FOREGOING IS IN LIEU OF ANY OTHER EXPRESSED OR IMPLIED WARRANTIES. We reserve the right to make changes to any product herein and assume no liability arising out of applications or use of any product or circuit described. Products described in this Specification are not intended for life support applications.