

# SUBMERSIBLE WATER LEVEL TRANSMITTERS

## MEASURE 0 to 1.5 m (5') TO 0 to 210.3 m (690') OF WATER



PX439-010GI, shown with PX430-TRAP moisture trap (included) and DP41-E meter, sold separately.

Shown actual size.

### Three Accuracies

- 4 to 20 mA Output
- PX437 0.1%
- PX438 0.25%
- PX439 0.5%

### Series Submersible Transmitters

- 0-1.5 m (5') to
- 0-210.3 m (690') Water
- 0-2 to 0-300 psi



- ✓ Designed for Complete Submersibility
- ✓ Unique Molded-Cable Seal System Ensures Watertight Integrity

- ✓ High Static Accuracy and Repeatability
- ✓ 100% Computer Tested, Calibrated, and Serialized
- ✓ Calibration Sheet Provided
- ✓ Fully Temperature Compensated
- ✓ Moisture Trap Included as Standard Feature

### Typical Applications

- ✓ Well Monitoring
- ✓ Slug Tests
- ✓ Pump Control
- ✓ Groundwater Monitoring
- ✓ Soil Remediation
- ✓ Oceanographic Research
- ✓ Lift Stations

- ✓ Level Control
- ✓ Surface Water Monitoring

OMEGA's PX437, PX438, and PX439 Series submersible water level transmitters are designed to meet the rigorous environments of applications such as well monitoring, pump tests, lift stations, chemical tank levels, groundwater and surface water measurement, and process control. They provide repeatable, precision depth measurements under the most adverse conditions. These transmitters use a silicon pressure cell fitted into a stainless steel housing with an integral welded 316 stainless steel barrier diaphragm. The nose cap is made of Delrin®.

The supplied calibration sheet specifies input and output data that reflects the unit's static accuracy and thermal characteristics.

Each transmitter is shipped with a trap that prevents moisture from entering the vent tube. Replacement moisture traps are available as accessory items.

# SUBMERSIBLE WATER LEVEL TRANSMITTERS

## SPECIFICATIONS

**Excitation:** 9 to 30 Vdc, reverse polarity protected

**Output:** 4 to 20 mA DC, 2 wire, short circuit protected

**Input Current:** 20 mA maximum

**Zero Offset:** ±0.12 mA maximum

**Insulation Resistance:** 100 MΩ at 50 Vdc

**Accuracy:**

**PX437:** 0.10% FS BFSL

**PX438:** 0.25% FS BFSL

**PX439:** 0.50% FS BFSL

(includes linearity, hysteresis and repeatability)

**Response Time:** 2 ms

**Operating Temperature:** -10 to 60°C (15 to 140°F)

**Compensated Temperature:** 0 to 50°C (32 to 120°F)

**Combined Thermal Effect:** ±0.05% full scale/°C (zero and span)  
0.1% full scale/°C for 2 and 5 psig ranges

**Proof Pressure:** 150%

**Burst Pressure:** 200%

**Wetted Parts:** 316 stainless steel, acetal, polyurethane cable FKM or FFKM

**Fill Fluid:** Silicone oil

**Mounting Provisions:** Suspended by cable. For turbulent conditions, specify optional mounting clamp.

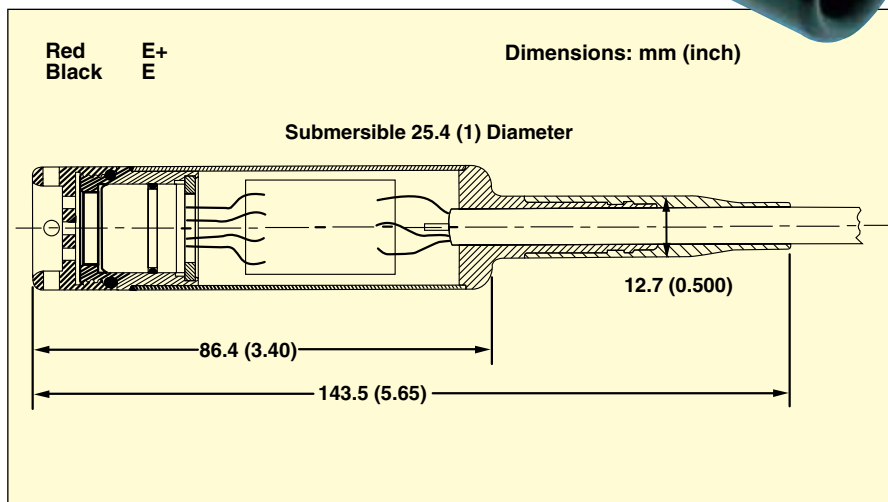
**Electrical Connections:**

Submersible cable terminating in pigtail leads

**Cable:** Polyurethane jacketed shielded cable with polyethylene vent tube and Kevlar® tension members, 90 kg (198 lb) pull strength. Conductors are 22 AWG.

**Weight:** 200 g (7 oz) transducer  
79 g/m cable (0.8 oz/ft) cable weight

PX437-002GI, shown actual size.



SPECIALTY PRESSURE TRANSDUCERS B

## To Order

RANGE			0.10% FS ACCURACY	0.25% FS ACCURACY	0.50% FS ACCURACY	LENGTH m (ft)
psig	bar	ftH <sub>2</sub> O	MODEL NO.	MODEL NO.	MODEL NO.	
0 to 2	0 to 0.14	5	PX437-002GI	PX438-002GI	PX439-002GI	6 (20)
0 to 5	0 to 0.34	11.5	PX437-005GI	PX438-005GI	PX439-005GI	6 (20)
0 to 10	0 to 0.69	23.1	PX437-010GI	PX438-010GI	PX439-010GI	12 (40)
0 to 15	0 to 1.0	34.6	PX437-015GI	PX438-015GI	PX439-015GI	15 (50)
0 to 30	0 to 2.1	69.2	PX437-030GI	PX438-030GI	PX439-030GI	27 (90)
0 to 50	0 to 3.4	115	PX437-050GI	PX438-050GI	PX439-050GI	41 (135)
0 to 100	0 to 6.9	230	PX437-100GI	PX438-100GI	PX439-100GI	76 (250)
0 to 150	0 to 10.3	345	PX437-150GI	PX438-150GI	PX439-150GI	111 (365)
0 to 200	0 to 13.8	460	PX437-200GI	PX438-200GI	PX439-200GI	146 (480)
0 to 250	0 to 17.2	575	PX437-250GI	PX438-250GI	PX439-250GI	181 (595)
0 to 300	0 to 20.7	690	PX437-300GI	PX438-300GI	PX439-300GI	216 (710)

Comes complete with PX430-TRAP moisture trap and operator's manual.

**Ordering Example:** PX439-010GI, submersible transmitter with 0.5% FS accuracy, 0 to 10 psig (23.1 ftH<sub>2</sub>O) and a 12 m (40') cable. Order extra PX430-TRAP, vent filter/water vapor trap. Add "-009" to model no. for lightning-protection option and add additional cost to price.

**CUSTOM RANGES**

PX43 \_\_\_\_\_ - \_\_\_\_\_ GI- \_\_\_\_\_

Enter "7" for 0.1% Accuracy      Enter cable length (Additional cost/ft)

Enter "8" for 0.25% Accuracy      Enter psi Range

Enter "9" for 0.5% Accuracy

## ACCESSORIES

MODEL NO.	DESCRIPTION
PX430-TRAP	Replacement vent filter/water vapor trap
PX430-CLAMP	Mounting clamp