



PT-500E SERIES

Submersible Level Transmitters for Potable Water

The PT-500E is a rugged submersible pressure transmitter specially designed for potable water applications requiring NSF certifications and can be used in other tank liquid level measurement, water and wastewater applications, and well depth measurement.

FEATURES

- Simple to install
- Multiple output types including 4–20 mA, 0–5 VDC, and Modbus RTU
- 1/2" NPTM threads on cable end for use with conduit
- Durable transducer face
- Built-in lightning transient protection on every model
- Field adjustable zero (magnet included)
- For 4–20 mA and 0–5 VDC outputs only
- NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372 certifications



PT-500E SPECIFICATIONS

PERFORMANCE

- Accuracy (linearity, hysteresis, and repeatability): $\pm 0.25\%$ of span (BFSL) (1% for ≤ 1 psi)
- 1 Year Stability: 0.75% FSO
- Temp Effects on Zero & Span: $\leq 0.025\%$ FS/ $^{\circ}$ F @ 70 $^{\circ}$

CONNECTIVITY

- Output:
 - 4-20 mA
 - 0-5, 1-5, 1-10 VDC
 - mV/V
 - Modbus RTU

ENVIRONMENTAL

- Maximum Depth: Submersible up to 575 ft.
- Standard Compensated Temp.:
 - ≤ 10 psi: 0 $^{\circ}$ to 60 $^{\circ}$ C / 32 $^{\circ}$ to 140 $^{\circ}$ F
 - > 10 psi: -10 $^{\circ}$ to 70 $^{\circ}$ C / 14 $^{\circ}$ to 158 $^{\circ}$ F
- Storage Temp.: -40 $^{\circ}$ to 82 $^{\circ}$ C / -40 $^{\circ}$ to 180 $^{\circ}$ F
- Operating Temp.: -40 $^{\circ}$ to 85 $^{\circ}$ C / -40 $^{\circ}$ to 185 $^{\circ}$ F

PHYSICAL

- Sensor Housing: 316L SS
- Enclosure: 316L SS
- Seal Housing: 316L SS
- Seal: Viton ETP-s
- Protective Nose Cone: 316L SS
- Cables: Polyurethane

ELECTRICAL

- Supply Voltage:

4-20 mA, 0-5 VDC, 1-5 VDC:	9-28 VDC
1-10 VDC:	14-28 VDC
mV/V:	10 VDC
Modbus RTU	9-28 VDC
- Current Draw:

4-20 mA:	3-30 mA
0-5 VDC, 1-5 VDC, 1-10 VDC:	3 mA
Modbus RTU	2 mA
- Electrical Connection: Vented watertight cable w/free ends
Up to 200 lbs tensile strength
- Electrical Protection: Built in Lightning Transient and Surge protection
Protected against reverse polarity, surge per IEC 61000-4-5

CERTIFICATION

- NSF 61 and 372 Certification

COMMON MODEL CONFIGURATIONS

Model Number	Model Description
PT-500E-5-PSI-G-L1-E0-P1-40-NO	4-20 mA, 0-5 PSI, 1/2" NPTM w/ removable nose cone, 40 ft. Polyurethane cable, 0°-60°C
PT-500E-10-PSI-G-L3-E0-P1-40-NO	0-5 VDC, 0-10 PSI, 1/2" NPTM w/ removable nose cone, 40 ft. Polyurethane cable, 0°-60°C
PT-500E-15-PSI-G-L5-E0-P1-60-NO	Modbus RTU, 0-15 PSI, 1/2" NPTM w/ removable nose cone, 60 ft. Polyurethane cable, -10°-70°C
PT-500E-20-PSI-G-L1-E0-P1-60-NO	4-20 mA, 0-20 PSI, 1/2" NPTM w/ removable nose cone, 60 ft. Polyurethane cable, -10°-70°C

PT-500E ACCESSORIES

Please order separately, by part number.

Description	Part Number
Desiccant drying cartridge for breathing tube	122774-0028
Gore filter*	511328

* Note: This option is included with a vented sensor purchase unless a desiccant cartridge is ordered.

SETTLER

Your Gateway to Smarter Monitoring

Settler, APG's next remote monitoring gateway, makes getting real-time level data easier than ever.

Settler seamlessly connects Modbus and 4-20 mA sensors—transmitting encrypted data securely to Explorer, APG's cloud-based interface. View tank and well levels anytime, anywhere, with reliable Ethernet connectivity and robust data security powered by MQTT with AES (Advanced Encryption Standard). Plus, with over-the-air (OTA) firmware updates, your system stays up to date without hassle.

Designed for general-purpose environments, Settler is not intended for use in hazardous areas.

Explorer makes monitoring simple. Access real-time readings, enable datalogging, and set up alarms so you're always informed of critical changes—right from your smartphone, tablet, or desktop.

Save time, reduce costs, and gain peace of mind with remote monitoring powered by Settler and Explorer. Contact us today to learn more or visit apgsensors.com/settler-remote-monitoring-gateway/.



MODEL CONFIGURATION OPTIONS

MODEL NUMBER: PT-500 - $\frac{E}{A}$ - $\frac{\quad}{B}$ - $\frac{\quad}{C}$ - $\frac{\quad}{D}$ - $\frac{\quad}{E}$ - $\frac{EO}{F}$ - $\frac{\quad}{G}$ - $\frac{\quad}{H}$ - $\frac{\quad}{I}$

A. Cable Type

- E* Polyurethane—Blue

B. Pressure Range

- Specify range in desired unit of measure

_____ Max Water Depth
575 ft. (175.25 m), 250 psi

C. Standard Units of Measure

- PSI FTH₂O
- INH₂O MMH₂O

D. Pressure Type (venting) Range Restrictions

- G Gauge (open vent tube): 0–250 psi
- A Absolute (sealed vent tube): 10–200 psi
- S Sealed (sealed vent tube): 4–250 psi

E. Output

- L1* 4–20 mA, 2-wire
- L3 0–5V, 4-wire
- L9 10 mV/V, 4-wire
- L12 1–5V, 4-wire
- L21 1–10V, 4-wire
- L5** Modbus RTU, 4-wire RS-485
Pressure reading only
- L31** Modbus RTU, 4-wire RS-485
Level calculations, tank volume

F. NPTM

- E0* 1/2" NPTM fitting for conduit, with pigtail

G. Process Connection

- P1* 1/2" NPTM with removable 316L SS nose cone
- P5 1/4" NPTF

H. Cable Length

- (specify length of cable needed in feet)

I. Accuracy

Greater than 1 PSI

- N0* ±0.25%
- N1 ±0.25% with NIST certification
- N2 ±0.1% with NIST certification

1 PSI and below

- N3 ±1%
- N4 ±1% with NIST certification

*Note: This option is standard

** Note: Indicates Field Adjustable Zero feature is not included.