PT-500E Series

Submersible Level Transmitters For Potable Water

Datasheet

7/8" Hex
22.2 mm

7.25"
184.2 mm

1/2" NPTM

1.00"
25.4 mm

Removable Nose Cone
Fitting

NSF®

Certified to
NSF/ANSI/CAN 61-G & 372

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

APG®

PT-500E SPECIFICATIONS

Performance
- Accuracy (linearity, hysteresis, & repeatability):
  ± 0.25% of span (BFSL) (1% for ≤ 1 psi)
- 1 Year Stability: 0.75% FSO
- Temp Effects on Zero & Span:
  ≤ 0.025% FS/°F @ 70°

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° to 60°C / 32° to 140°F
  > 10 psi: -10° to 70°C / 14° to 158°F
- Storage Temp: -40° to 82°C / -40° to 180°F
- Operating Temp: -40° to 85°C / -40° to 185°F

Certification
- NSF 61 and 372 Certification

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

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

PT-500E COMMON MODEL CONFIGURATIONS

Model Number	Model Description
PT-500E-5-PSI-G-L1-E0-P1-40-N0	4-20mA, **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-N0	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-N0	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-N0	4-20m, **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.

Take Control of Remote Monitoring with Settler & Explorer

The PT-500E is built for remote monitoring—its low power consumption makes it perfect for solar- or battery-powered applications. Now, with the Settler remote monitoring gateway, getting real-time level data has never been easier.

Settler seamlessly connects Modbus and 4-20mA 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.

Explorer makes monitoring simple. Access real-time readings, enable data logging, and set up alarms so you're always informed of critical changes—right from your smartphone, tablet, or desktop.
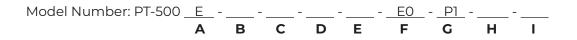
Save time, reduce costs, and gain peace of mind with remote monitoring powered by Settler & Explorer. Contact us today to learn more or visit apgsensors.com.

Model Configuration Options

Model Number: PT-500 <u> E </u> - <u>   </u> - <u>   </u> - <u>   </u> - <u>   </u> - <u> E0 </u> - <u> P1 </u> - <u>   </u> - <u>   </u>
               A   **B**   **C**   **D**   **E**   **F**   **G**   **H**   **I**

A. Cable Type
□ **E** ▲   Polyurethane - Blue

B. Pressure Range
□ Specify range in desired unit of measure

<u>   </u>   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

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

F. NPTM
□ **E0** ▲ 1/2" NPTM fitting for conduit, with pigtail

G. Process Connection
□ **P1** ▲ 1/2" NPTM with removable 316L SS nose cone

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: ▲ Indicates this option is standard.

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