



PT-500 SERIES



Submersible Level Transmitters for Clean & Dirty Liquids

The PT-500 is a rugged submersible pressure transmitter designed for tank liquid level measurement, water and wastewater applications, and well depth measurement.

FEATURES

- Simple to install
- High precision, solid state signal: 4–20 mA
- Exclusive, removable, and reusable cage
- 1/2" NPTM option on cable end for use with conduit
- Durable transducer face
- Intrinsically safe for Class I, Div 1/Zone 0 (4–20 mA only)
- Built-in lightning transient protection on every model
- Single seal for highest safety protection factor
- Field adjustable zero (magnet included)



REUSABLE CAGE FITTING

Ideal for dirty liquids



NOSE CONE FITTING

Ideal for clean liquids



1-1/2" TRI-CLOVER FITTING

Ideal for sanitary

PT-500 SPECIFICATIONS

PERFORMANCE

- Accuracy (linearity, hysteresis, and repeatability): $\pm 0.250\%$ of span (BFSL) (1% for $\leq$ psi)
- 1 Year Stability: 0–20,000 PSIS
- Temp Effects on Zero & Span: $\leq 0.025\% \text{ FS}/^\circ\text{F}$ @ 70°

CONNECTIVITY

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

ENVIRONMENTAL

- Maximum Depth: Submersible up to 575 ft.
- Standard Compensated Temp.:
 $\leq 10 \text{ psi}$: 0° to 60°C / 32° to 140°F
 $> 10 \text{ psi}$: -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

PHYSICAL

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

ELECTRICAL

- Supply Voltage:
4–20 mA, 0–5 VDC, 1–5 VDC: 9–28 VDC
0–10 VDC: 14–28 VDC
mV/V: 10 VDC
- Current Draw:
4–20 mA: 3–30 mA
0–5 VDC, 1–5 VDC, 1–10 VDC: 3 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

- 4–20 mA Output Only
- CSA Intrinsically Safe
- Class I, Div. 1, Groups C, D
- Class I, Zone 0, Group IIB
- Ex ia IIB T4; $-40^\circ\text{C} \leq \text{Ta} \leq +85^\circ\text{C}$
- AEx ia IIB T4; $-40^\circ\text{C} \leq \text{Ta} \leq +85^\circ\text{C}$
- Single Seal
- Device must be connected to a NRTL approved safety barrier (located in a safe area).
- The equipment must be connected to a certified Class 2 power supply

COMMON MODEL CONFIGURATIONS

Wastewater Configurations

Model Number	Model Description
PT-500C-5-PSI-G-L1-E0-P39-40-N0	4-20 mA, 0-5 PSI, Removable cage and 1-1/2" Tri-clover, 40 ft. PVC cable, 0°–60°C
PT-500C-10-PSI-G-L1-E0-P39-40-N0	4-20 mA, 0-10 PSI, Removable cage and 1-1/2" Tri-clover, 40 ft. PVC cable, 0°–60°C
PT-500C-15-PSI-G-L1-E0-P39-60-N0	4-20 mA, 0-15 PSI, Removable cage and 1-1/2" Tri-clover, 60 ft. PVC cable, -10°–70°C
PT-500C-20-PSI-G-L1-E0-P39-60-N0	4-20 mA, 0-20 PSI, Removable cage and 1-1/2" Tri-clover, 60 ft. PVC cable, -10°–70°C

Clean Water Configurations

Model Number	Model Description
PT-500C-5-PSI-G-L1-E0-P1-40-N0	4-20 mA, 0-5 PSI, 1/2" NPTM and removable nose cone, 40 ft. PVC cable, 0°–60°C
PT-500C-10-PSI-G-L1-E0-P1-40-N0	4-20 mA, 0-10 PSI, 1/2" NPTM and removable nose cone, 40 ft. PVC cable, 0°–60°C
PT-500C-15-PSI-G-L1-E0-P1-60-N0	4-20 mA, 0-15 PSI, 1/2" NPTM and removable nose cone, 60 ft. PVC cable, -10°–70°C
PT-500C-20-PSI-G-L1-E0-P1-60-N0	4-20 mA, 0-20 PSI, 1/2" NPTM and removable nose cone, 60 ft. PVC cable, -10°–70°C

PT-500 ACCESSORIES

Please order separately, by part number.

Description	Part Number
Desiccant drying cartridge for breathing tube	122774-0028
Cage assembly	548001-8888
Gore filter*	511328
Sour gas scrubber cartridge for breathing tube**	201246

*Note: The gore filter is included with a vented sensor purchase unless a desiccant cartridge is ordered.

**Note: The gas scrubber is only compatible with PT-500B, PT-500C, and PT-500D models. Used when cable is terminated in high acid-gas environments (e.g. Sour H₂S gas).



SETTLER

Your Gateway to Smarter Monitoring

Settlr, APG's next-gen remote monitoring gateway, makes real-time level data easier than ever. It connects Modbus and 4-20 mA sensors, securely transmitting encrypted data to Explorer, APG's cloud-based interface. Monitor tank and well levels anytime, anywhere, with reliable Ethernet connectivity and MQTT with AES encryption. Over-the-air (OTA) firmware updates keep your system current with no hassle.

Built for general-purpose use, Settlr is not for hazardous areas. With Explorer, view real-time data, log readings, and set alarms—all from your smartphone, tablet, or desktop.

Save time, cut costs, and stay informed with remote monitoring from Settlr and Explorer. Learn more at apgsensors.com/settlr-remote-monitoring-gateway/.

MODEL CONFIGURATION OPTIONS

MODEL NUMBER: PT-500 — — — — — — — — —

A B C D E F G H I

A. Cable Type

- ☐ * Polyurethane—Blue
- ☐ B Hytrel .31" Ø—Black
- ☐ C PVC—Black
- ☐ D Hytrel .25" Ø—Black

B. Pressure Range

Specify range in desired unit of measure

 Max Water Depth: 525 ft. (175.25 m), 250 psi

C. Standard Units of Measure

- ☐ PSI ☐ FTH20
- ☐ INH20 ☐ MMH20

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
- ☐ E5 Pigtail without conduit connection

G. Process Connection

- ☐ P1* 1/2" NPTM with removable plastic nose cone
- ☐ P5 1/4" NPTF
- ☐ P37 Welded Cage (anti-snag 1 piece fitting)
- ☐ P38 1-1/2" tri-clover with 3/4" diaphragm
- ☐ P39 Reusable Cage (includes P38 fitting)

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 this option does not yet have CSA Approvals

▲Note: Indicates Field Adjustable Zero feature is not included