



# PT-500Y SERIES



## Submersible Level Transmitters for Clean & Dirty Liquids

The PT-500Y 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 outputs: 4–20 mA, Voltage, RS-485 Modbus
- 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 (4-20mA output only)
- Built-in lightning transient protection on every model
- Single seal for highest safety protection factor
- Field adjustable zero (magnet included)

# PT-500Y SPECIFICATIONS

## PERFORMANCE

- Pressure Ranges: 0 to 250 PSI
- Outputs:
  - 4–20mA
  - 0/1–5VDC
  - 0/1–10VDC
  - mV/V
  - Modbus RTU
- Over Pressure: 2X FSO
- Burst Pressure: 3X FSO
- 1 Year Stability: 0.75% FSO

## ACCURACY

- Linearity, Hysteresis & Repeatability:
  - ±0.25% of Full Scale (BFSL) up to ±0.1% of Full Scale
  - ±1.0% for ≤ 1 psi
- Thermal Zero Shift @ 70 °F:
  - ±0.045% FSO/°C (±0.025% FSO/°F)
- Thermal Span Shift @ 70 °F:
  - ±0.045% FSO/°C (±0.025% FSO/°F)

## ENVIRONMENTAL

- Operating Temperature: -40° to 80°C / -40° to 176°F
- Compensated Temperature:
  - ≤ 10 psi: 0° to 60°C / 32° to 140°F
  - > 10 psi: -10° to 70°C / 14° to 158°F
- Maximum Submersible Depth: 575 ft / 175.25 m / 250 psi

## ELECTRICAL

- **Supply Voltage (at sensor):**
  - 4-20 mA, 0/1 to 5 VDC: 9 to 28 VDC
  - 1 to 10 VDC: 14 to 28 VDC
  - mV/V: 10 VDC (calibrated to 10 VDC input)
  - Modbus RTU: 5 to 28 VDC
- **Output Signal @ 21°C / 70°F:** 3-30 mA max
- **Electrical Protection:** Protected against reverse polarity, surge per IEC 61000-4-5
- **Startup Time:**
  - 4-20 mA, VDC, and mV/V outputs: 50 ms
  - Modbus output: 200 ms
- **Current Draw:**
  - 4-20 mA: 3-30 mA
  - VDC outputs: 3 mA
  - Modbus RTU: 2 mA max

## PHYSICAL

- Wetted Materials: 316L Stainless Steel
- Anti-slag Cage: 316L Stainless Steel
- Cable: Urethane, PVC, or Hytrel
- Protective Nose Cone: Delrin
- Seal: Viton ETP-s
- Cable Tensile Strength: Up to 200 pounds

## PATENTS

- US Patent No. 7,787,330



**REUSABLE CAGE FITTING**  
Ideal for dirty liquids



**NOSE CONE FITTING**  
Ideal for clean liquids



**1-1/2" TRI-CLOVER FITTING**  
Ideal for sanitary

## COMMON MODEL CONFIGURATIONS

### Wastewater Configurations

Model Number	Model Description
PT-500YC -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-500YC -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-500YC -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-500YC -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-500YC -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-500YC -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-500YC -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-500YC -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-500Y 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-500Y-B, PT-500Y-C, and PT-500Y-D models. Used when cable is terminated in high acid-gas environments (e.g. Sour H2S gas).



## 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 and Wi-Fi 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/](https://apgsensors.com/settler-remote-monitoring-gateway/).