

■
**Removable &
 Reusable
 Cage!**
 patent pending



■ Operational Description

APG's submersible liquid level transmitters are engineered for a wide variety of industrial and municipal liquid level measurement applications requiring watertight protection. Each transmitter undergoes extensive testing and calibration to achieve an accuracy of 0.50% of span. State-of-the-art surface mount technology provides added protection from shock and vibration. Each unit is temperature compensated to ensure accuracy and long term stability under extreme temperature variations.

The transmitters feature a vented, watertight cable. The unit meets IP68, the International Protection standard for electrical equipment, for submersion to 450 ft.



level sensing

PT-500

Submersible Liquid Level Transmitters

- Simple to install liquid level measurement
- High precision, solid state signal: 4-20 mA
- Exclusive, removable and reusable cage saves you money when replacing the sensor (patent pending)
- Optional 1-1/2" tri-clover with 3/4" diaphragm or 1-1/2" diaphragm process connection with removable cage
- 1/2" NPTM on cable end for use with conduit
- cCSAus hazardous location approved
 - Class I, Div. 1, Groups C & D
 - Class I, Zone 0, Group IIB

■ Applications

These rugged submersible pressure transmitters are suitable for applications in tank liquid level measurement, water and wastewater, well depth measurement, and offshore water depth measurement (sea water).

APG is a registered trademark of Automation Products Group, Inc.

Automation Products Group, Inc.
 1025 West 1700 North Tel. 1/888/525-7300
 Logan, UT 84321 USA Fax 1/435/753-7490

www.apgsensors.com
sales@apgsensors.com

■ ■ ■ ■ "Providing tailored solutions for measurement applications."

■ Specifications

Input: 10-28 VDC
Accuracy
Linearity, Hysteresis, Repeatability (B.F.S.L.): ≤ 0.50% of span
1 Year Stability: ≤ 0.25% of span
Temperature
Temperature Compensation Range: 32 to 122°F (0 to 50°C)
Storage: -40 to 175°F (-40 to 80°C)
Temperature Error: (Reference temperature 70°F (21°C))
Zero: ≤ 0.025% F.S./°F
Span: ≤ 0.025% F.S./°F
Electrical Connection: Vented watertight cable with free ends; specify cable length
Tensile strength: maximum 200 lb.
Enclosure Protection: Submersible up to 450 ft.
Material
Wetted Parts: 316L SS
Cable: Polyurethane
Protective Cap: Polyamide
Transmitting Fluid: Food grade silicone oil
Electrical Protection: Protected against reverse polarity, surge per IEC 61000-4-5
Hazardous Location Approvals: CSA/cCSAus Contract #237484
IS: Class I, Division 1, Groups C & D; Ex ia IIB T4
Class I, Zone 0; AEx ia IIB T4
Ambient: -40 to 85°C

Specifications are subject to change without notice.

■ Wiring

2-Wire Current Loop	
Signal	Wire Color
Supply +	Red
Signal -	Black
Ground	Green

Terminal Coding Notes:

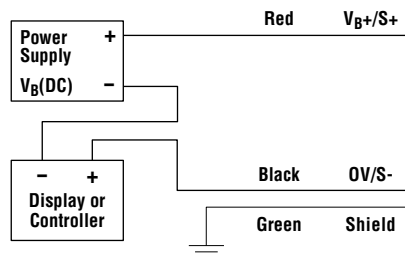
- V_B+** : Plus power supply
- OV** : Minus power supply
- S+** : Plus output signal
- S-** : Minus output signal
- Shield** : Cable shield/transmitter body

The supply voltage must be higher than the minimum required voltage as determined by the load equation for the specific transmitter. Refer to the specifications section of the data sheets for additional information.

4-20 mA 2 Wire System

The 2 wire system connects the power supply, transmitter, and indicating/recording instruments in a series circuit. This creates a "current loop" with the transmitter functioning as a current regulating device.

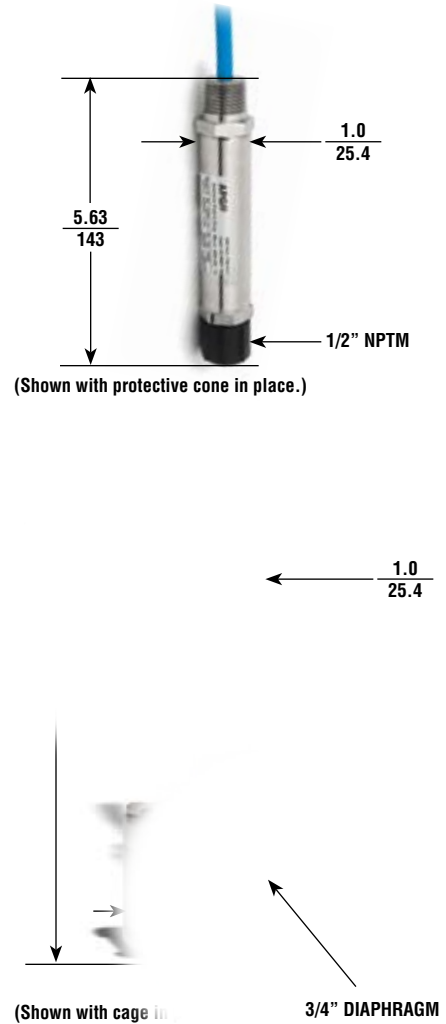
Flying Leads



Load Limitation

$$R_{(max)} = ((V_s - 12V) / 0.02 A) - (0.042 \Omega \text{ per ft. of cable})$$

■ Dimensions — in./mm



level sensing

■ **Ordering Information**

Standard Ranges		
	Pressure	Water Depth
5 psig	0-5 psig	11.5 ft. (3.5 m)
10 psig	0-10 psig	23.0 ft. (7.0 m)
15 psig	0-15 psig	34.7 ft. (10.6 m)
25 psig	0-25 psig	57.8 ft. (17.6 m)
50 psig	0-50 psig	115.5 ft. (35.2 m)
100 psig	0-100 psig	231.1 ft. (70.4 m)
200 psig	0-200 psig	462.2 ft. (140.9 m)

Output	
L1	4-20 mA, 2-wire

Process Connection	
P1	1/2" NPTM with removable plastic nose cone
P38	1-1/2" tri-clover with 3/4" diaphragm
P39	Cage (includes P38 fitting)

Cable Length	
Specify length in feet. (Standard length is 40 ft.)	

Accessories

Please order separately, by part number.

Description	Part Number
316L SS hex coupler, 1/2" NPTF to 1/2" NPTF	511414
Dessicant drying cartridge for breathing tube	122774-0028
Cage assembly	548001-8888



level sensing