

## Thank You

Thanks for purchasing a PT-L pressure transducer from us! We appreciate your business and your trust. Please take a moment to familiarize yourself with the product and this manual before installation. If you have any questions, at any time, don't hesitate to call us at 888-525-7300.

NOTE: Scan the appropriate QR code to the below to see the full user manual on your tablet or smartphone. Or visit [www.apgsensors.com/support](http://www.apgsensors.com/support) to find it on our website.



PT-L Amplified Output Series User Manual

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### 1 Description

The PT-L series of pressure transmitters offers economical reliability over a wide range of pressures. The small size, integrated electronics, wide operating temperature range, and durability, make the PT-L the perfect instrument with an amplified output signal for static and dynamic pressure measurements.

### 2 How To Read Your Label

Each label comes with a full model number, a part number, and a serial number. The model number for the PT-200 will look something like this:

▲ SAMPLE: PT-200-L1-500PSIG-E51-P0

The model number correlates with all the configurable options and tells you exactly what you have. Compare the model number to the options on the datasheet to identify your exact configuration. You can also call us with the model, part, or the serial number and we can help you.

The label also includes the pinout, as does this installation guide.

You'll also find all hazardous certification information on the label.

### 3 Warranty

This product is covered by APG's warranty to be free from defects in material and workmanship under normal use and service of the product for 24 months. For a full explanation of our Warranty, please visit <https://www.apgsensors.com/about-us/terms-conditions>. Contact Technical Support to receive a Return Material Authorization before shipping your product back.

Scan the QR code below to read the full explanation of our Warranty on your tablet or smartphone.



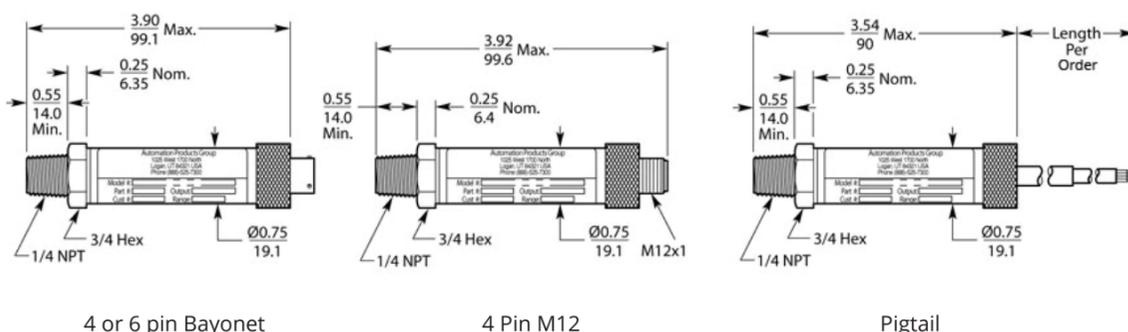
### 4 Mounting Instructions

Mounting your PT-L pressure transducer is easy if you follow a few simple steps:

- Never over-tighten the sensor. This can compress the diaphragm, changing how it reacts to pressure. In all cases, tighten the sensor as little as possible to create an adequate seal.
- Always use thread tape or sealant compound on tapered threads. Wrap thread tape in the opposite direction of the threads so it does not unravel as you screw the sensor into place. Unraveling can cause uneven distribution and seal failure.
- Always start screwing in your sensor by hand to avoid cross-threading. Thread failure can be a problem if you damage threads by over-tightening them or by crossing threads.

### 5 Dimensions

Dimensions: in./mm



# PT-L Pressure Transducer

## Installation Guide

### Amplified Output Series



Automation Products Group, Inc.  
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[www.apgsensors.com](http://www.apgsensors.com) | phone: 888-525-7300 | email: [sales@apgsensors.com](mailto:sales@apgsensors.com)

Part# 122950-0022  
Doc #9004210 Rev A

### 6 Pinout and Supply Power Tables

#### PT-L Pin Out Table

		4-20 mA	0/1-5/6 VDC	0/1-10 VDC	
6 Pin Circular	A	+ Excitation	+ Excitation	+ Excitation	 6 Pin Circular Connector
	B	- Excitation	+ Output	+ Output	
	C	N/C	- Output	- Output	
	D	N/C	-Excitation	-Excitation	
	E	N/C	N/C	N/C	
	F	N/C	N/C	N/C	
6 Pin Bayonet	A	+ Excitation	+ Excitation	+ Excitation	 6 Pin Bayonet Connector
	B	- Excitation	+ Output	+ Output	
	C	N/C	- Output	- Output	
	D	N/C	- Excitation	- Excitation	
	E	N/C	N/C	N/C	
	F	N/C	N/C	N/C	
4 Pin Bayonet	A	+ Excitation	+ Excitation	+ Excitation	 4 Pin Bayonet Connector
	B	- Excitation	+ Output	+ Output	
	C	N/C	- Output	- Output	
	D	N/C	- Excitation	- Excitation	
4 Pin M12	1	+ Excitation	+ Excitation	+ Excitation	 4 Pin M12 Micro Connector
	2	- Excitation	+ Output	+ Output	
	3	N/C	- Output	- Output	
	4	N/C	- Excitation	- Excitation	
Pigtail	Red	+ Excitation	+ Excitation	+ Excitation	
	Grn	N/C	+ Output	+ Output	
	Wht	N/C	- Output	- Output	
	Blk	- Excitation	- Excitation	- Excitation	

N/C indicates no connection  
For alternate pinouts, please consult factory

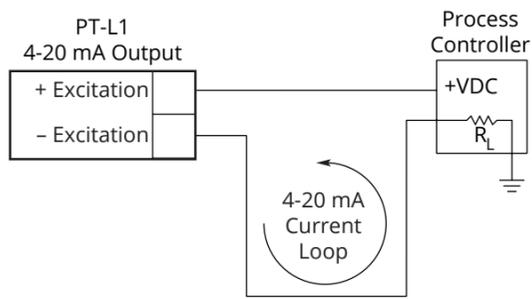
#### PT-L Series Supply Power Table

	4-20 mA	0/1-5/6 VDC	0/1-10 VDC
Power Supply	10-36 VDC	9-33 VDC	14-33 VDC

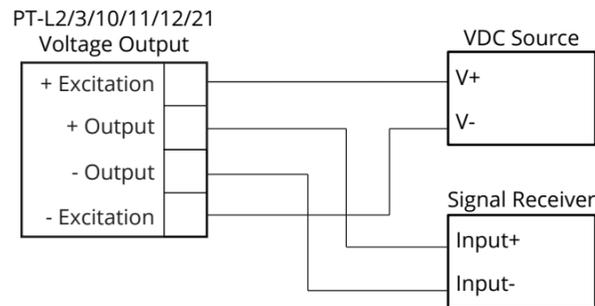
## 7 Wiring Diagrams

The 4-20 mA PT-L1 is a 2 wire, loop powered transducer/transmitter. A voltage of between 10 and 36 VDC must be maintained at this connection. Completion of the earth or system ground is recommended for proper circuit protection.

Power supply voltage must be sufficient to maintain a minimum of 9 VDC at the transducer/transmitter terminals after “dropping” voltage across  $R_L$  at full scale current (20 mA). Example: If  $R_L = 250 \Omega$  then “drop” is  $0.02 \text{ Amps} \times 250 \Omega = 5 \text{ volts}$ . Therefore power supply minimum is  $5 \text{ V} + 9 \text{ V} = 14 \text{ V}$ .



4-20 mA Output Wiring Diagram



Voltage Output Wiring Diagram

## 8 General Care

Your pressure transmitter is very low maintenance and will need little care, as long as it was installed correctly. However, in general, you should:

- For process connected sensors, keep the sensor and the area around it generally clean.
- Avoid applications for which the sensor was not designed, such as extreme temperatures, contact with incompatible corrosive chemicals, or other damaging environments.
- Inspect the threads whenever you remove the sensor from duty or change its location.
- Avoid touching the diaphragm. Contact with the diaphragm, especially with a tool, could permanently shift the output and ruin accuracy.
- Cleaning the diaphragm or the diaphragm bore should be done with extreme care. If using a tool is required, make sure it does not touch the diaphragm.

**⚠ IMPORTANT:** Any contact with the diaphragm can permanently damage the sensor. Use extreme caution.

## 9 Repair Information

If your pressure transmitter needs repair, contact us via email, phone, or on-line chat on our website. We will issue you an RMA number with instructions.

- Phone: 888-525-7300
- Email: [sales@apgsensors.com](mailto:sales@apgsensors.com)
- Online chat at [www.apgsensors.com](http://www.apgsensors.com)

## 10 Removal Instructions

Removing your PT-L transducer from service must be done with care. It's easy to create an unsafe situation, or damage your sensor, if you are not careful to follow these guidelines:

- For sensors installed via NPT process connection, make sure the pressure is completely removed from the line or vessel. Follow any and all procedures for safely isolating any media contained inside the line or vessel.
- Remove the sensor with an appropriately sized wrench (per your process connection).
- Carefully clean the sensor's fitting and diaphragm of any debris (see General Care) and inspect for damage.
- Store your sensor in a dry place, at a temperature between  $-40^{\circ} \text{ F}$  and  $180^{\circ} \text{ F}$ .

**⚠ DANGER:** Removing the pressure transmitter while there is still pressure in the line or vessel could result in injury or death.