



## PT-L1/L3/L10\*

### Amplified Output Pressure Transmitters

- Cost effective
- Available ranges from vacuum up to 500 psi and 0 up to 10,000 psi
- Standard outputs: 4-20 mA, 0-5 VDC, 0-10 VDC, 1-5 VDC, and 1-6 VDC
- High overpressure capability
- Single piece stainless steel process fitting and sensor
- Zero and span adjustments
- 1/4-18 NPTM fitting standard
- True 0-5 or 0-10 VDC, can transition from vacuum to positive pressure
- Mating connector included
- $\pm 0.25\%$  accuracy of full scale
- Internally compliant to CE

#### Options

- Color coded cable "pigtail" with optional wire lengths
- $\pm 0.1\%$  accuracy of full scale with NIST certification on selected ranges (from 0 to 30 psi up to 0 to 7,000 psi)
- Extended temperature compensation
- High vibration
- Tamper-resistant body design
- Numerous process fittings
- Other units of measure available at no extra cost
- Cleaned for oxygen service
- For OEM applications or other configurations, consult factory



#### ■ Operational Description

This line of pressure transmitters offers pressure ranges from vacuum to 500 psi and from 0 up to 10,000 psi, all stainless steel construction, high burst pressure (without risk of silicon oil contamination), and high accuracy of  $\pm 0.25\%$  F.S. (B.F.S.L.). The sensor consists of silicon piezoresistive strain gages arranged in a Wheatstone bridge configuration mounted on a single piece, stainless steel diaphragm. The highly accurate sensor and electronics are packaged in a stainless steel housing for use in most environments, yet still provides access to zero and span adjustments.

#### ■ Applications

These pressure transmitters are the economical answer for all applications requiring high accuracy and reliability over a wide range of pressures. The unit's small size (3 oz.), integrated electronics, wide operating temperature range (-40 to 180°F), exceptional reliability, durability, and long life, make them the perfect instrument for most static and dynamic pressure measurements where an amplified output signal is desired.

\* The PT-L1 was formerly called the PSI-4/20.

The PT-L3 was formerly called the PSI-5000.

The PT-L10 was formerly called the PSI-10000.



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For the Latest Info

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## ■ Specifications

Performance
<b>Standard Pressure Ranges</b>
<b>Compound Gauge:</b> From vac up to 500 psi
<b>Gauge or Absolute:</b> From 0 to 10,000 psi
<b>Flush Mount:</b> 0 to 5,000 psi
<b>Overpressure:</b> 2x full scale
<b>Burst Pressure:</b> 10x full scale or 20,000 psi (whichever is less)
<b>Accuracy (linearity &amp; hysteresis)</b>
<b>Standard Fitting:</b> $\pm 0.25\%$ of full scale (B.F.S.L.); NIST traceable certification also available for $\pm 0.25\%$ and $\pm 0.1\%$ (select ranges only)
<b>Flush Mount Fitting:</b> $\pm 1.0\%$ of full scale (B.F.S.L.); NIST traceable certification also available for $\pm 1.0\%$
<b>Stability – One Year Zero Drift:</b> <b>15-5:</b> $< \pm 0.5\%$ F.S., <b>316:</b> $< \pm 1\%$ F.S.
<b>Zero Balance Adjust:</b> $\pm 1\%$ of full scale
<b>Life:</b> 10 million cycles minimum
<b>Environmental</b>
<b>Standard Compensated Temp:</b> 0 to 130°F (-17 to 54°C)
<b>Extended Compensated Temp (Optional):</b> -40 to 180°F (-40 to 82°C)
<b>Storage Temp:</b> -40 to 180°F (-40 to 82°C)
<b>Operating Temp:</b> -40 to 180°F (-40 to 82°C)
<b>Humidity:</b> 0 to 90% relative
<b>Physical</b>
<b>Weight:</b> 3 oz. (85 g)
<b>Wetted Materials:</b> 15-5 SS; 316L SS available at no extra charge (Ranges under 100 psi in 316L SS incorporate a Hastelloy® C276 diaphragm); One piece Hastelloy® fitting also available (minimum quantities required)
<b>Media:</b> Compatible with 15-5 SS, 316L SS, or Hastelloy® C276
<b>Process Cavity Volume:</b> 0.035 <sup>3</sup> in.

Specifications are subject to change without notice.

## ■ Electrical Specifications

### 4-20 mA Output

<b>Input Voltage (Excitation):</b> 10 VDC min (no load) to 36 VDC max
<b>Input Current:</b> 3-30 mA max
<b>Output:</b> 4-20 mA $\pm 0.16$ mA at set points
<b>Output/Input:</b> 2 wire loop powered
<b>Resolution:</b> Infinite
<b>Protection:</b> Reversed polarity

### 0-5 VDC Output

<b>Input Voltage (Excitation):</b> 9 to 33 VDC
<b>Input Current:</b> 15 mA max
<b>Output:</b> 0-5 VDC / $\pm 0.05$ VDC at set points
<b>Output/Input:</b> Non-isolated 3 wire
<b>Resolution:</b> Infinite
<b>Protection:</b> Reversed polarity

### 0-10 VDC Output

<b>Input Voltage (Excitation):</b> 14 to 33 VDC
<b>Input Current:</b> 15 mA max
<b>Output:</b> 0-10 VDC / $\pm 0.05$ VDC at set points
<b>Output/Input:</b> Non-isolated 3 wire
<b>Resolution:</b> Infinite
<b>Protection:</b> Reversed polarity

## ■ Thermal Shift

### Thermal Zero Shift

Material	0 to 130°F	-40 to 180°F
15-5 PH	0.02% FS/°F	0.02% FS/°F
316L SS	0.02% FS/°F	0.03% FS/°F

### Thermal Sensitivity Shift

Material	0 to 130°F	-40 to 180°F
15-5 PH	0.02% FS/°F	0.02% FS/°F
316L SS	0.02% FS/°F	0.03% FS/°F

Note: For flush mount fittings, add 0.01% to all values.

## ■ Common Pressure Ranges

Range Option	Range	Unit of Measure
<b>30*</b>	-30 to 0	inHg
<b>30</b>	0 to 30	psi
<b>60</b>	0 to 60	psi
<b>100</b>	0 to 100	psi
<b>200</b>	0 to 200	psi
<b>500</b>	0 to 500	psi
<b>1000</b>	0 to 1000	psi
<b>5000</b>	0 to 5000	psi
<b>10000</b>	0 to 10000	psi

Other ranges available.

\*Requires VAC option when ordering.



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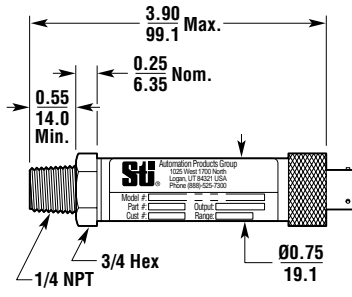
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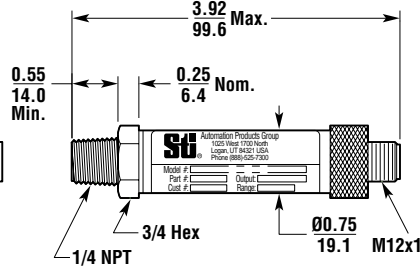


## ■ Dimensions — in./mm

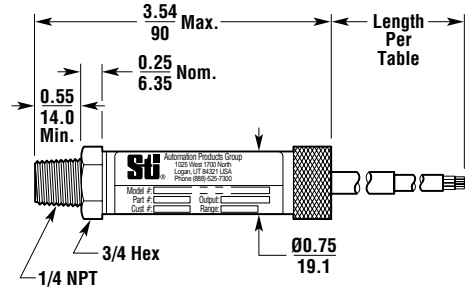
pressure products



4 PIN BAYONET



EUROFAST



PIGTAIL

## ■ Wiring

PT-L1/3/10 Pin Out Table

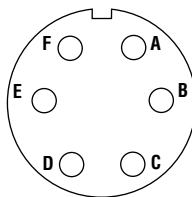
	4-20 mA	0-5 VDC	0-10 VDC
6 Pin Circular	A + Excitation	+ Excitation	+ Excitation
	B - Excitation	+ Output	+ Output
	C N/C	- Output	- Output
	D N/C	- Excitation	- Excitation
4 Pin Bayonet	A + Excitation	+ Excitation	+ Excitation
	B - Excitation	+ Output	+ Output
	C N/C	- Output	- Output
	D N/C	- Excitation	- Excitation
4 Pin Eurofast	1 + Excitation	+ Excitation	+ Excitation
	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
MiniDIN 43650	1 + Excitation	+ Excitation	+ Excitation
	3 N/C	+ Output	+ Output
	2 - Excitation	- Output &	- Output &

N/C indicates no connection.

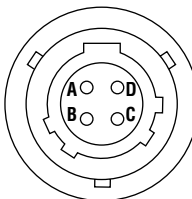
### Electrical Cable Specifications

AWG: 26
Stranding: 7/34
Type: MIL-W-16878E
Shield: 36 AWG TPC Braid
Jacket: PVC

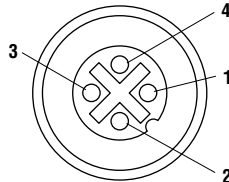
6 Pin Connector



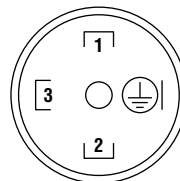
4 Pin Bayonet Connector



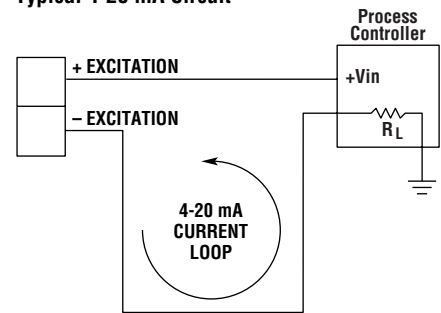
4-Pin EuroFast® Connector



MiniDin Connector



Typical 4-20 mA Circuit



Typical 0-5 and 0-10 VDC Circuit

