

industrial

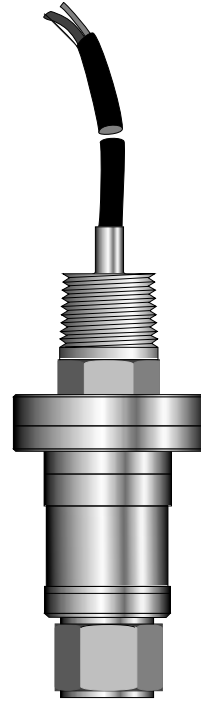
pressure
transmitter

Model PT General Specification

PT

Features

- ▶ Process pressure range:
1.5 to 1,000 psi
(0.1 to 69 bar)
- ▶ Accuracy of
 $\pm 0.25\%$ of full scale
- ▶ Process temperature
range: -40 to 250 °F
(-40 to 121 °C)
- ▶ 2-wire, 4 to 20 mA output
- ▶ CE Approved
- ▶ FM Approved for
Class I, Division 2,
Groups A, B, C, D;
Class II & III, Division 2,
Groups F, G



The Model PT combines micro-machined silicon diaphragms with fully welded stainless steel and hastelloy pressure ports to provide a highly accurate, stable pressure transmitter. It is constructed with the materials and environmental protection required for industrial applications.

The silicon sensors incorporate developments derived from aerospace applications. These developments are used to decrease output noise, non-linearity, and hysteresis and to improve long term stability.

A detachable, industrial, electrical connector provides access to the independent zero and span trim controls.

Each transmitter incorporates RFI/EMC and electrical spike protection.



Engineering Measurements Company

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Performance Specifications

Accuracy

± 0.25% of full scale
(the *best straight line*-determined from the combined effects of non-linearity, hysteresis, and repeatability).

Ambient Temperature Effects

For ranges of 5 psi and above, the output will not deviate from room temperature calibration by more than:

- 2.0% full scale over 15 to 122 °F (−9.4 to 50 °C)
- 3.0% full scale over −5 to 175 °F (−20.6 to 79.4 °C)

Typically:

- 1.0% full scale over 15 to 122 °F (−9.4 to 50 °C)
 - 2.0% full scale over −5 to 175 °F (−20.6 to 79.4 °C)
- For ranges below 5 psi these values will increase pro-rata with calibrated span.

Operating Specifications

Service

Liquid, gas, and steam

Operating Pressure Range

Part Number	Pressure Range	
	psig	barg
011115-1	0 to 50	0 to 3.4
011115-2	0 to 100	0 to 6.9
011115-3	0 to 150	0 to 10.3
011115-4	0 to 200	0 to 13.8
011115-5	0 to 250	0 to 17.2
011115-6	0 to 500	0 to 34.5
011117-2	0 to 1000	0 to 69.0
011117-1	Customer specified.	

Proof Pressure

The rated pressure can be exceeded by 2X without degrading performance.

Operating Temperature Range

Ambient

−40 to 175 °F (−40 to 80 °C)

Process Media

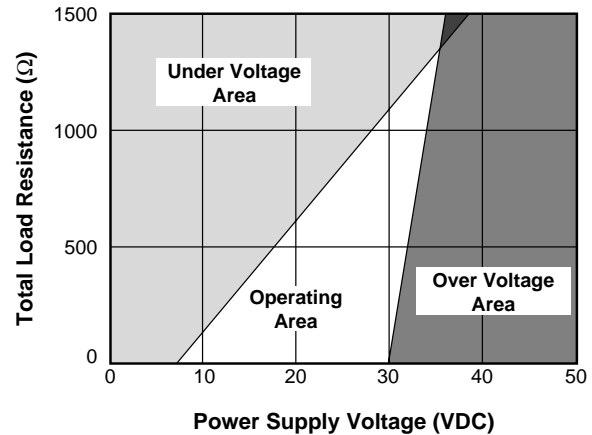
−40 to 250 °F (−40 to 121 °C)

Storage

−40 to 250 °F (−40 to 121 °C)

Power Supply Requirements

9 to 30 VDC, across red wire (positive) and blue wire (negative). This voltage must appear across the transmitter terminals.



Output

4 to 20 mA (2-wire configuration) proportional for zero to full scale pressure.

Physical Specifications

Materials of Construction

Isolating Diaphragm Hastelloy C®-276
Transducer Body 316 stainless steel

Pressure Connection

1/4" NPT female

Calibration Standards

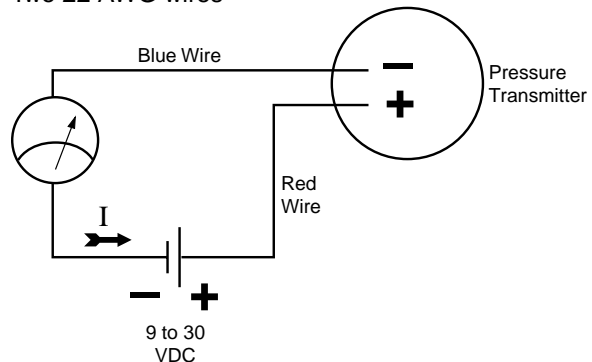
Transmitters are calibrated against precision pressure calibration equipment traceable to NIST.

Weight

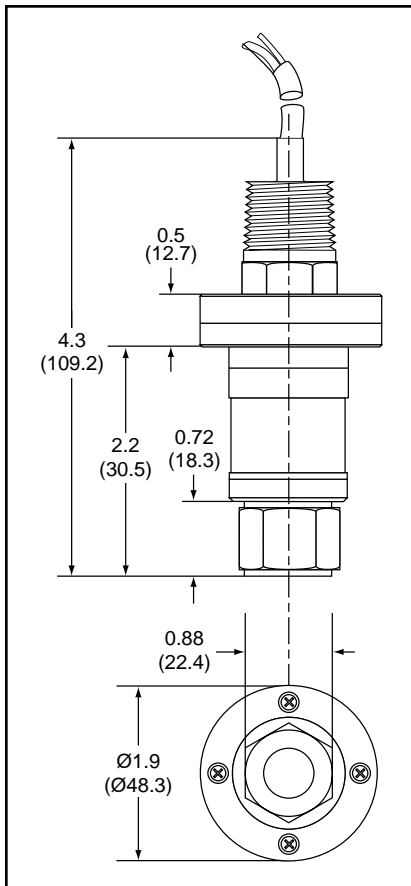
14 oz nominal

Electrical Connection

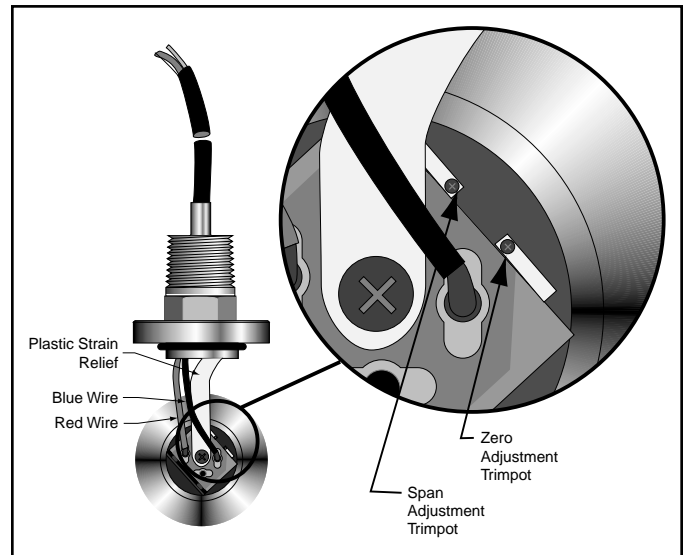
Two 22 AWG wires



Dimensions



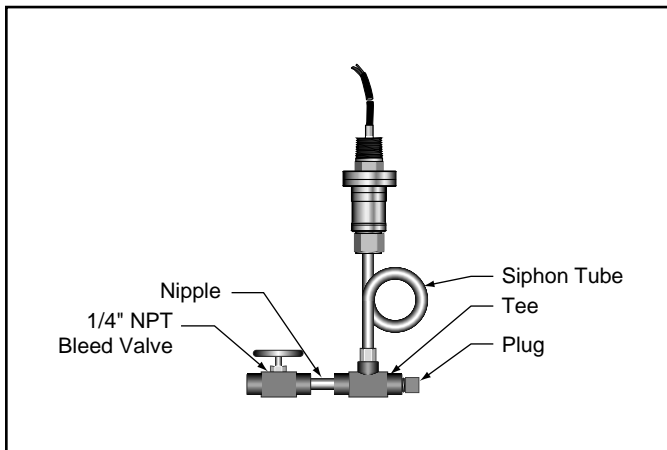
Zero and Span Adjustments



Zero and span adjustments are made using the trimpots. To gain access to trimpots, disassemble the PT as follows:

- Remove the four screws
- Gently separate two halves
- Adjust zero and span as needed
- Replace the connection plate back on the housing

Mounting Kit



Model and Suffix Codes

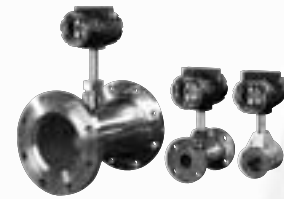
Description	Part Number
PT for pressure range 0–50 psig (0–3.44 barg)	011115-1
PT for pressure range 0–100 psig (0–6.89 barg)	011115-2
PT for pressure range 0–150 psig (0–10.34 barg)	011115-3
PT for pressure range 0–200 psig (0–13.79 barg)	011115-4
PT for pressure range 0–250 psig (0–17.24 barg)	011115-5
PT for pressure range 0–500 psig (0–34.47 barg)	011115-6
PT for pressure range 0–1000 psig (0–68.95 barg) ³	011117-2
PT to accommodate special requests and bar scaling. ¹	011117-1
Mounting Kit: includes bleed valve, siphon tube, plug, nipple, and tee. Must be used with PT if process temperature is above 250 °F (121 °C).	010589-4

- Determine the pressure range that is the most appropriate for your application. Contact your EMCO representative for details.
- Specify the typical service conditions. A siphon tube on the PT is required for all applications above 250 °F (121 °C).
- Not FM Approved.

Providing innovative flowmeter products and services for over three decades . . .

Engineering Measurements Company (EMCO) is a long established manufacturer of precision flowmeters for liquid, gas, and steam applications for commerce and industry. Manufactured under an ISO 9001 certified quality system, which includes extensive flow calibration capability, engineering, applications, and service, underpinning a world-wide sales and service organization totally focused on providing the best flowmeters and customer service in the industry.

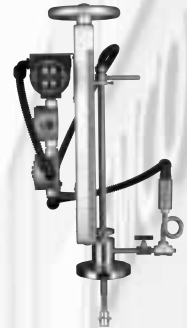
- ▶ Manufacturing is housed in a modern plant located in Longmont, Colorado
- ▶ Modern clean-room, mechanized assembly equipment, and computer based testing ensure the highest quality product
- ▶ Trained professional flow specialists and technicians offer timely customer assistance
- ▶ Factory trained and certified field technicians provide product support services



Vortex PhD™ Inline Vortex



V-Bar™
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990130 Rev.G
Specifications subject to change without notice

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