spirax sarco®

Pressure Transmitter
Model S-PT

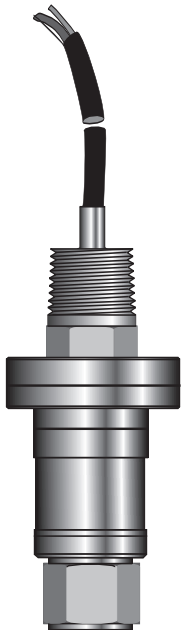
Description

The Model S-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.



Features

- Process pressure range: 1.5 to 1,000 psig
- Accuracy of ± 0.25% of full scale
- Process temperature range: –40 to 250 °F
- 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

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
3.0% full scale over –5 to 175 °F

Typically:

1.0% full scale over 15 to 122 °F
2.0% full scale over –5 to 175 °F

For ranges below 5 psi these values will increase pro-rata with calibrated span.

Operating Specifications

Service
Liquid, gas, and steam

Proof Pressure
The rated pressure can be exceeded by 2X without degrading

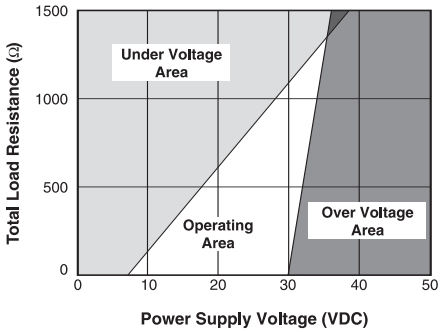
Operating Pressure Range

Part Number	Pressure Range
	psig
S0111151	0 to 50
S0111152	0 to 100
S0111153	0 to 150
S0111154	0 to 200
S0111155	0 to 250
S0111156	0 to 500
S0111172	0 to 1000
S0111171	Customer specified.

Operating Temperature Range

Ambient	Process Media	Storage
–40 to 175 °F	–40 to 250 °F	–40 to 250 °F

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.

Local regulations may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.
In the interests of development and improvement of the product, we reserve the right to change the specification.

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Physical Specifications

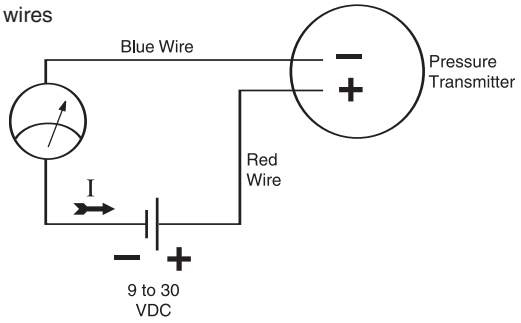
Materials of Construction
Isolating Diaphragm . . . . . Hastelloy C®-276
Transducer Body . . . . . 316 stainless steel

Pressure Connection
1/4" NPT female

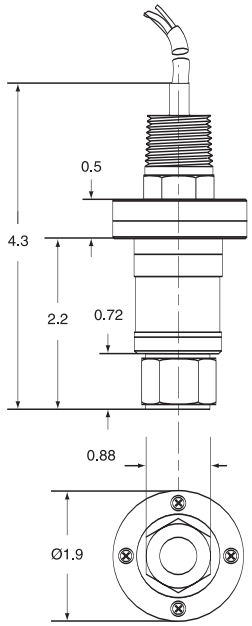
Calibration Standards
Transmitters are calibrated against precision pressure calibration equipment traceable to NIST.

Weight
14 oz nominal

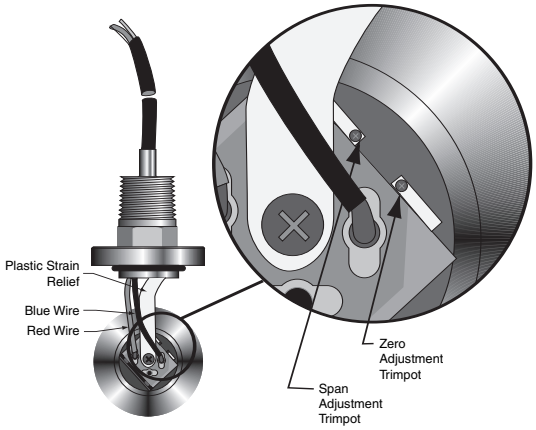
Electrical Connection
Two 22 AWG wires



Dimensions



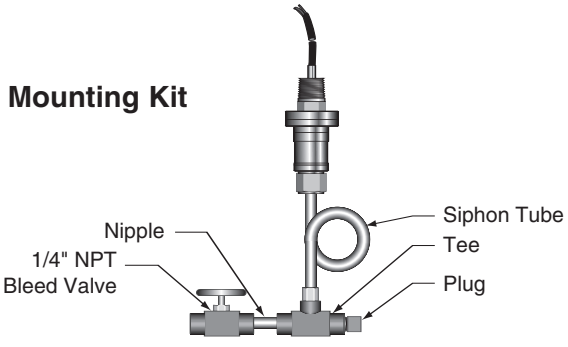
Zero and Span Adjustments



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

a. Remove the four screws
b. Gently separate two halves
c. Adjust zero and span as needed
d. Replace the connection plate back on the housing

Mounting Kit



Model and Suffix Codes

Description	Part Number
S-PT for pressure range 0–50 psig	S0111151
S-PT for pressure range 0–100 psig	S0111152
S-PT for pressure range 0–150 psig	S0111153
S-PT for pressure range 0–200 psig	S0111154
S-PT for pressure range 0–250 psig	S0111155
S-PT for pressure range 0–500 psig	S0111156
S-PT for pressure range 0–1000 psig [3]	S0111172
S-PT to accommodate special requests and bar scaling.[1]	S0111171
Mounting Kit: includes bleed valve, siphon tube, plug, nipple, and tee. Must be used with S-PT if process temperature is above 250°F.	S0105894

1. Determine the pressure range that is the most appropriate for your application. Contact your Spirax Sarco representative for details.
2. Specify the typical service conditions. A siphon tube on the S-PT is required for all applications above 250 °F.
3. Not FM Approved.

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