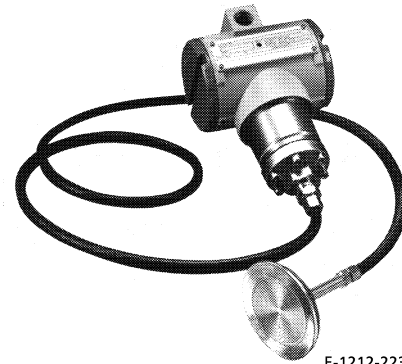


- ±0.2% of span accuracy
- Spans from 10 to 600 psig
- Outstanding temperature stability
- All-welded remote seal design
- 7-year warranty

The 574T, 575T, 576T Remote Sanitary Seal Element Electronic Gauge Pressure Transmitter is a two-wire, 24V dc transmitter with a 4 to 20 mA dc output signal linear to the input pressure. The transmitter employs a ceramic capacitance sensor and unique, hermetically sealed, thick-film hybrid circuit. Each hybrid circuit is dynamically laser-trimmed to match the performance characteristics of the sensor to create a high-performance, high-reliability transmitter.



Combined accuracy, temperature, and pressure stability are unmatched by other electronic pressure transmitters.

SPANS AND RANGES

Transmitter	Span Limits Minimum & Maximum	Range Limits		Maximum Working Pressure (MWP)
		Lower	Upper	
574T	10 psig to 40 psig (70 kPa) to (275 kPa)	-14.7 psig (-100 kPa)	40 psig (275 kPa)	120 psig (825 kPa)
575T	40 psig to 160 psig (275 kPa) to (1,100 kPa)	-14.7 psig (-100 kPa)	160 psig (1,100 kPa)	275 psig (1,900 kPa)
576T	150 psig to 275 psig (1,050 kPa) to (1,900 kPa)	-14.7 psig (-100 kPa)	275 psig (1,900 kPa)	275 psig (1,900 kPa)

*MWP of transmitter may be limited by rating of commercial clamp selected by customer for seal element process connection.

Zero Elevation/Suppression: Zero is continuously adjustable provided that the calibrated range is within the span and range limits above.

Warranty: ABB Instrumentation Inc., Rochester, NY, warrants the 500T Series Transmitter for 7 years from date of shipment. Contact ABB Instrumentation Inc., for complete information

PERFORMANCE SPECIFICATIONS

Electrical Classification

Agency approvals and certifications as listed in Ordering Information.

Temperature Limit

Process -13 to 400°F (-25 to 204°C)
Ambient -13 to 167°F (-25 to 75°C)
Storage -65 to 200°F (-54 to 93°C)

Operating Voltage (Transmitter)

	Minimum	Maximum
Without Options	12V dc	45V dc
With Surge Protection	13.4V dc	45V dc

Low-Pressure Limit

0 psia, provided seal element is at or above level of capsule

Relative Humidity 0 to 100% RH

Load Limitations*

Drive Impedance = $\frac{\text{Supply V dc} - \text{Minimum V dc}}{0.020}$

Maximum Drive Impedance

Without Options 1650 ohms
With Surge Protection 1580 ohms

*For higher load capability, contact Rochester.

Service

Liquid, gas, or steam

Vacuum Service

Full Vacuum

Accuracy

(Includes effects of linearity, hysteresis, and repeatability)
 ±0.2% of calibrated span

PERFORMANCE SPECIFICATIONS

Hysteresis and Deadband Combined

Better than 0.05%

Repeatability

Better than 0.05%

Ambient Temperature Effect

Temperature effect on performance of remote seal transmitters is dependent on many factors such as:

- Process temperature
- Type of seal element
- Ambient temperature
- Capillary fill fluid
- Sunshine vs shade on capillary
- Calibrated span of unit
- Length of Capillary or elevation
- Amount of suppression

Under controlled conditions, temperature effect is less than 1.0% per 100°F (56°C).

Overpressure Effect

±0.25% of upper range limit (URL) on zero

Output Signal

4 to 20 mA dc

Optional Surge Protection

Up to 2500V pulse (5K amp discharge current) of 8 µs rise time and 20 µs decay to half value

Long-Term Stability

Better than ±0.25% of URL after 6 months

Supply Voltage Effect

Less than 0.005% per V dc

Load Effect

None

Vibration Effect

±0.1% URL/2g at 15 to 150 Hz
±0.1% URL/g at 151 to 2000 Hz

RFI Effect

Meets SAMA Standard PMC 33.1-1978. Tested over a full frequency range of 20 to 1000 MHz.

PHYSICAL SPECIFICATIONS

Process Diaphragm

Type 316L SST

Fill-Fluid

Silicone (Trademark of Dow Corning Corporation)
-40 to 400°F (-40 to 204°C)

Transmitter Housing

Low copper cast aluminum with baked epoxy ester, urea formaldehyde melamine finish; NEMA 4X, CSA Enc 4, IP66.

Weight

10.0 lb (4.5 kg)

Capillary

304 SST capillary with SST spiral armor protection and polyethylene jacket.

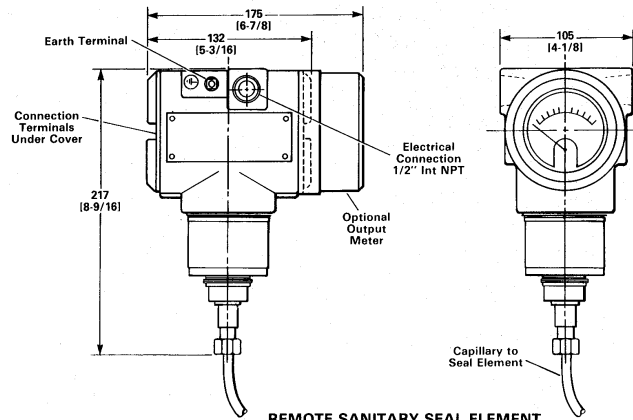
Electrical Connection

1/2 in. Int. NPT

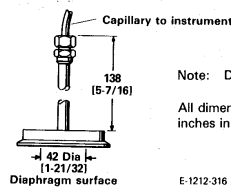
For Electrical Codes 08 and 38 only, 2 each, 1/2 in. NPT male x M20 female adapters are provided.

For Electrical Code 82 only, 2 each environment-resistant circular connectors with angle plug, per MIL-C-5015, are provided.

DIMENSIONS



REMOTE SANITARY SEAL ELEMENT



Note: Dimensions are nominal

All dimensions in mm;
inches in parentheses

E-1212-316

ORDERING INFORMATION

574T - 576T ELECTRONIC GAUGE PRESSURE TRANSMITTER WITH REMOTE SEAL ELEMENT

1. Select one character or set of characters from each category and specify complete catalog number per sample below.
2. Specify tagging if required. Tagging information is provided on the exterior stainless steel data plate to a limit of 40 characters
3. Specify units for calibration and Data Tag in psi or kPa.

Code No.	Description
	BASE NUMBER - 1st thru 4th characters
574T	Electronic Gauge Pressure Transmitter with Sanitary Remote Seal Element, Span Adjustable from 10 to 40 psi (70 to 275 kPa)
575T	Electronic Gauge Pressure Transmitter with Sanitary Remote Seal Element, Span Adjustable from 40 to 160 psi (275 to 1100 kPa)
576T	Electronic Gauge Pressure Transmitter with Sanitary Remote Seal Element, Span Adjustable from 150 to 275 psi (1050 to 1900 kPa)
	PRIMARY FILL-FLUID - 5th character
D	Silicone ¹ DC 200
	ELECTRICAL CODE - 6th and 7th characters (also see Specification Sheet 12-16)
01	FM Approved: Non-Incendive (Division 2), Explosionproof (Division 1), Intrinsic Safety (Division 1)
02	BASEEFA Certified: Type N (Zone 2), Intrinsic Safety (Zone 0)
04	CSA Certified: Non-Incendive (Division 2), Explosionproof (Division 1), Intrinsic Safety (Division 1)
08	SAA Certified: Type n (Zone 2), Flameproof (Zone 1), Intrinsic Safety (Zone 0)
10	General Purpose, ABB Instrumentation Standard
31	FM Approved: Non-Incendive (Division 2), Explosionproof (Division 1) (Note 1)
32	BASEEFA Certified: Type N (Zone 2) (Note 1)
34	CSA Certified: Non-Incendive (Division 2), Explosionproof (Division 1) (Note 1)
38	SAA Certified: Type n (Zone 2), Flameproof (Zone 1) (Note 1)
45	BASEEFA Certified: Flameproof (Zone 1)
82	BASEEFA Certified: Intrinsic Safety (Zone 0) (Electrical Connection includes Environment Resistant Circular Connector with Angle Plug per MIL-C-5015)
	CAPILLARY FILL-FLUID AND PROCESS TEMPERATURE RANGE - 8th character
1	Silicone 200 ¹ , -13 to 400°F (-25 to 204°C) (Maximum temperature for full vacuum is 300°F (149°C) for Silicone 200).
	SEAL ELEMENT TYPE - 9th character
1	Sanitary Element for 2" Tri-Clamp ² Connection
	SEAL DIAPHRAGM MATERIAL - 10th character
2	Type 316L SST
	MODEL - 11th character
A	Design level
	PROCESS CONNECTION FITTING - 12th character
0	None
	MOUNTING BRACKET - 13th Character
0	None
1	Bracket for 1-1/4 in. to 2 in. (32 mm to 50 mm) Pipe or Surface Mounting, carbon steel
2	Bracket for 1-1/4 in. to 2 in. (32 mm to 50 mm) Pipe or Surface Mounting, SST (Note 2)
	OUTPUT METER - 14th character
0	None
1	0 to 100 Linear Scale
3	Digital (see Note 1)

ORDERING INFORMATION

Code No.	Description
	OPTIONS - 15th character
0	None
2	Surge Protector
-	HYPHEN - 16th character
	PROCESS SEAL O-RINGS - 17th character
0	None
	PROCESS CONNECTION CLAMP - 18th character
0	None
	CAPILLARY LENGTH - 19th and 20th characters
05	5 ft (1.5m) minimum
10	10 ft (3m)
15	15 ft (4.5m)
20	20 ft (6m) maximum
	576TD01112A0000-0005 SAMPLE CATALOG NUMBER

NOTE

1. Electrical Codes 10, 31, 32, 34, 38 and 45 are the only valid codes when a digital output meter (14th character 3) is required.
2. Not available with BASEEFA or SAA electrical code.

¹ Trademark of Dow Corning Corporation

² Trademark of Tri-Clover Division, Ladish Company



The Company's policy is one of continuous product improvement and the right is reserved to modify specifications contained herein without notice.

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SS-12-15B 98.8

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