



## ELECTRONIC PRESSURE MEASUREMENT PRODUCTS

# Model IND-100 Industrial Pressure Transmitter

### DESCRIPTION

The Model IND-100 pressure transmitter has been designed for use in a variety of industrial applications such as plant process and utility pressure measurements, compressor control, and hydraulic and pneumatic manufacturing systems. The AMETEK IND-100 offers exceptional reliability in industrial as well as outdoor environments. It provides unequalled performance and is perfectly suited for the demanding price requirements of this market.

EMI/RFI resistance is critical and is provided on the AMETEK IND-100 transmitter as protection against noise-generating variable speed motors and radio equipment that is common on the factory floor. In addition, all AMETEK transmitters are thermally compensated over a wide temperature range to handle outdoor environments.

AMETEK utilizes the most stable sensor available for IND-100 transmitters, sputtered metal thin film technology. The wetted surfaces are 316L, and Hastelloy. The circuits are isolated from external interference with RFI/EMI filters and a power limiting circuit which has been agency approved to meet Class I, Div. 1 intrinsic safety standards. IND-100 transmitters with pigtail connectors are also NEMA 4x rated to meet the needs of outdoor installations.



Model IND-100

### FEATURES

- Compact size
- Stainless steel construction
- 4-20 mA and 0-5 VDC output at 12-30 VDC
- $\pm 0.25\%$  accuracy
- Indoor or outdoor installations
- Ranges from 100 psi to 3000 psi
- Zero and span adjustability
- CSA/NTRL intrinsically safe (Div. 1 and Div. 2)
- EMI/RFI protected
- NEMA 4X available

### SPECIFICATIONS

#### Functional Specifications

**Service:** Liquid, gas or vapor

#### Range Limits:

100 psig, 250 psig, 1000 psig, 2000 psig, 3000 psig; alternate ranges, including bar also available (consult factory)

**Output:** 4-20 mA, 2-wire, current limited, 0-5 VDC

**Power Supply:** 12-30 VDC with reverse polarity protection

**Loop Resistance:** 0 ohms at 12 VDC; 900 ohms at 30 VDC (mA only)

**Output Loading:** 75 kohm (VDC output only)

**Span/Zero Adjustment:**  $\pm 5\%$  of FS

#### Temperature Limits:

*Compensated:* 0° to 50°C

*Operating:* -25° to 85°C

*Storage:* -40° to 85°C

**Humidity:** 0-95% RH, pigtail model\*

**Overrange:** 150% FS

**Burst Pressure:** 400% FS

#### Hazardous Locations:

Intrinsic safety (with barrier): Class I, Div. 1

Non-incendive: Class I, Div. 2

\* Atmospheric reference: transmitter vents through the cable



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### Performance

**Accuracy:**  $\pm 0.25\%$  of FS includes linearity (BFSL), hysteresis and repeatability

**Response Time:** Time constant of less than 20 milliseconds

**Stability:**  $\pm 0.125\%$  of FS per 6 months under reference conditions

### Temperature Effects:

Zero:  $\pm 0.02\%$  of FS/ $^{\circ}\text{C}$  within compensated range

Span:  $\pm 0.02\%$  of FS/ $^{\circ}\text{C}$  within compensated range

**Electromagnetic Compatibility:** CE marked per EMC directive 89/336/EEC Semi E33-94

### Physical

**Sensing Element:** Metal thin film bridge

**Wetted Surfaces:** 316L and Hastelloy C22

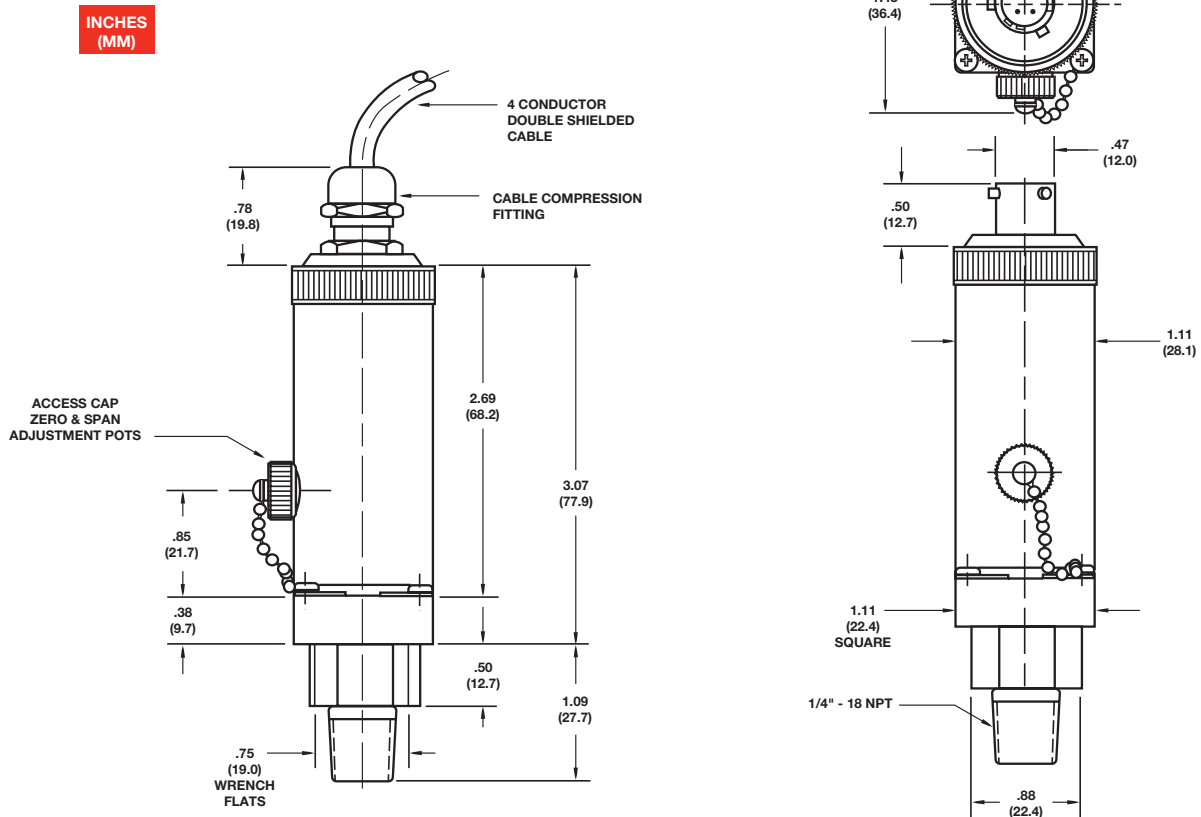
**Housing Material:** 300 series stainless steel

**Output Connector:** BENDIX style PTIH-8-4P or pigtail (standard length = 10 ft., custom available), or pigtail with 1/2 inch NPT conduit

**Pressure Connection:** 1/4 inch NPT male

**Warranty:** 1 year from date of installation or date of shipment

**Internal Diagnostics/Reference Calibration Shunt:** Used for GO/NO GO checks





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Model Numbering:	
● <b>IND-100 Industrial Pressure Transmitter</b>	
IND-100-S	Industrial pressure transmitter
● <b>Pressure type</b>	
G	0 psig based gauge
A	Absolute*
V	-14.7 psig based gauge
C	Compound gauge (full VAC to xxxx psi)
● <b>Pressure ranges</b>	
0050	psig
0100	psig
0250	psig
1000	psig
2000	psig
3000	psig
● <b>Process connection type</b>	
PT	NPT pipe thread (male)
BM	Surface mount, 3 process holes
BP	Surface mount, 2 process holes
● <b>Process connection size</b>	
4	1/4 – 18 NPT male
● <b>Output signal</b>	
1	4 to 20 mA
2	0 to 5 VDC
● <b>Electrical connection</b>	
B	BENDIX
P	10 ft. pigtail
C	1/2 inch conduit adapter with 10 ft. outdoor pigtail
N	10 ft. outdoor pigtail
● <b>Agency approvals</b>	
1	I.S. intrinsically safe
2	Non-incendive Class 1 Div. 2
3	No rating
100-S	G
0250	PT
4	1
B	1

\* Absolute pressure provided as vacuum gauge reference: i.e. 0-250 psia = -14.7 psig to 235.3 psig