



Foxboro® IAP10M/IGP10M

Modbus pressure transmitter

The Foxboro® Modbus Pressure Transmitter IAP10M/IGP10M is an accurate and intelligent transmitter that offers precise measurement of process absolute or gauge pressures in a small and lightweight package. As a fully digital transmitter, the product is networked using Modbus over Ethernet or a selectable RS485/232 serial line.

Easy to install and operate, any Modbus master can access and control a large number of these transmitters. The Foxboro® Modbus Pressure Transmitter is a natural choice for a wide variety of oil, gas, water and industrial applications.



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Specifications

| Features | |
|--|--|
| Analog Output | 0 - 20mA, 12 bit, sinking Control of measured variable for PID logic control at RTU |
| LCD Interface | Two button control, 2-line interface with 13 characters |
| Communications | |
| Serial Port | RS232/485 configurable, 1200 to 38400 baud |
| Serial Protocol | Modbus RTU |
| Ethernet Port | 10BaseT, terminal block connection |
| Ethernet Protocols | Modbus/UDP, Modbus RTU in UDP |
| Performance Specifications ¹ | |
| Pressure Accuracy (% of Span) ² | ±0.060% for Spans ≥10% URL ±[0.025 + 0.0035 (URL/Span)]% for Spans <10% URL Add ±0.02% for Span Codes E, F and G |
| Stability | <±0.05% of URL per year over 5-year period |
| Analog Output Accuracy | <ul style="list-style-type: none"> ±0.15% of Full Scale at 25°C (77°F) ±0.25% of Full Scale over Temperature Range |
| Physical Specifications | |
| Power | 9 to 30 Vdc Supply 76 mW with RS-232 or RS-485 Serial 200 mW with Ethernet LAN 600 mW with Analog Output externally powered |
| Mass | 1.47kg (3.25lb) without process connectors |
| Environmental | 5% RH to 95%, non-condensing -40°C (-40°F) to 70°C (158°F) |

1 Zero-Based Calibrations; Stainless Steel Sensor w/Silicone Fluid; Under Reference Operating Conditions unless otherwise Specified; URL = Upper Range Limit, and Span = Calibrated Span.

2 Includes Linearity, Hysteresis, and Repeatability.

Specifications – continued

Certifications

- cCSAus Explosionproof Class I, Div. 1 Groups B, C and D Hazardous Locations
- cCSAus Explosionproof Class I, Div. 2 Groups A, B, C and D Hazardous Locations
- Temperature code T5 at maximum ambient, 70°C

CSA certified to the following standards:

- CSA Std. C22.2 No. 213-M1987 - Class I, Division 2 Hazardous Locations
- CSA Std. C22.2 - No. 142-M1987 - Process Control Equipment
- UL Std. No. 1604 - Class I and II, Division 2; Class III Hazardous (Classified) Locations
- UL Std No. 916 - Energy Management Equipment

Range Limits (Absolute or Gauge Pressure)

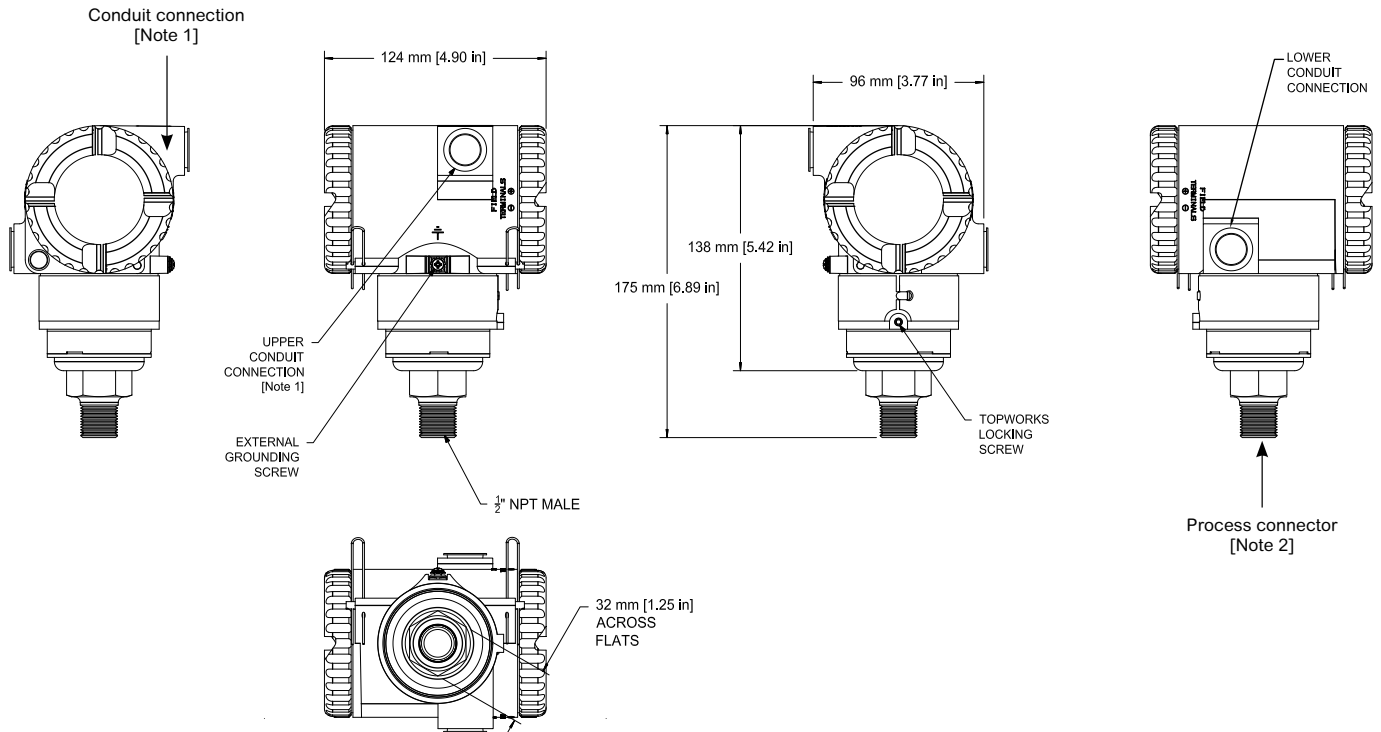
| Span Code | Absolute or Gauge Pressure | |
|-----------|----------------------------|------------------------------------|
| C | 0 to 30 psi | (0 to 0.21 MPa) |
| D | 0 to 300 psi | (0 to 2.10 MPa) |
| E | 0 to 3000 psi | (0 to 21 MPa) |
| F | 0 to 6000 psi | (0 to 42 MPa) Gauge Pressure Only |
| G | 0 to 15000 psi | (0 to 105 MPa) Gauge Pressure Only |

Disclaimer: Schneider Electric reserves the right to change product specifications. For more information visit www.schneider-electric.com.

Model Code

| Model | Product Description | | |
|--------|--|-----------------------------|-------------------|
| IAP10M | Absolute Pressure Transmitter with Modbus RTU Protocol | | |
| IGP10M | Gauge Pressure Transmitter with Modbus RTU Protocol | | |
| Code | Process Connection | Sensor Material | Sensor Fill Fluid |
| 2 | 1/2" NPT male 316L SS | 316L SS | Silicone |
| 3 | 1/4" NPT female 15-5 SS | 15-5 SS | None |
| Code | Span Limit | | |
| | MPa | PSI | |
| C | 0.007 to 0.21 | 1 to 30 | |
| D | 0.07 to 2.1 | 10 to 300 | |
| E | 0.7 to 21 | 100 to 3000 | |
| F | 14 to 42 | 2000 to 6000 (IGP10M only) | |
| G | 35 to 105 | 5000 to 15000 (IGP10M only) | |
| Code | Process Connector Type | | |
| 0 | Direct Mount, NPT Threaded Connection | | |
| Code | Transmitter Housing Material | Conduit Entry | |
| 1 | Epoxy-coated Aluminium | 1/2 - 14 NPT | |
| Code | Approvals | | |
| U | cCSAus Explosionproof Class 1, Div. 1 & Class 1, Div. 2, Groups A, B, C and D. Approved for Hazardous locations | | |
| Code | Options | | |
| 0 | None | | |
| 1 | RS-232 Serial Comms Cable, 10 ft (3m) | | |
| 2 | Ethernet Comms Cable, 10 ft (3m) | | |
| Code | Display | | |
| N | None | | |
| A | Digital Indicator with Internal Pushbuttons and Window Cover | | |

Dimensions



- 1 Conduit connection 1/2 NPT, both sides; unused connection is sealed with supplied metal plug.
- 2 Transmitter can be installed directly on process piping without mounting brackets.
Optional bracket allows connection to standard 1/4 NPT internal thread.

Note: Topworks can be rotated to any position within one turn counter clockwise of the fully tightened position.

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