

Model IGP10 Gauge Pressure Transmitter

- Application Versatility
- Rugged Dependability
- Superior Performance
- Choice of Electronics Modules
- LCD Indicator / Pushbutton Configurator
- NEMA 4X / IP66 Protection
- CENELEC, CSA, FM and SAA Approval
- Choice of Electronics Modules

General Description

The Foxboro I/A Series transmitters are a complete family of differential pressure, gauge pressure, and absolute pressure transmitters. Remote seals and flanged versions are available.

IGP10 series intelligent two-wire pressure transmitters provide precise, reliable measurement of gauge pressure and transmit a proportional electrical signal, in either analogue or digital mode.

Functional Specifications

Output Signal and Configuration

Version	Output Options	Configure From
-A	Analogue 4-20 mA	Standard push buttons
-I	Analogue 4-20 mA	Standard push buttons
-T	HART/4-20 mA	HART 275 Communicator (Foxboro HT991) Windows Software (Foxboro PC20) Optional push buttons
-D	Digital FOXCOM or Analogue 4-20 mA	I/A Series Workstation Hand-Held Terminal (Foxboro HHT) Windows Software (Foxboro PC20) Optional push buttons

Span and Range Limits

Span Limit Code	Span Limits			Range Limits		
	kPa	psi	mbar	kPa	psi	mbar
C	7.0 and 210	1 and 30	70 and 2100	0 and 210	0 and 30	0 and 2100
	MPa	psi	bar or kg/cm ²	MPa	psi	bar or kg/cm ²
D	0.07 and 2.1	10 and 300	0.7 and 21	0 and 2.1	0 and 300	0 and 21
E	0.7 and 21	100 and 3000	7 and 210	0 and 21	0 and 3000	0 and 210



Electrical Classification

Various certifications are available, including EExia IIC Intrinsically Safe Zone 0, EExd IIC Flameproof Zone 1 and ExN Non Sparking Zone 2.

Maximum Static and Overrange Ratings

The maximum pressure which may be applied without causing damage to the transmitter are as follows.

Span Limit Code	Maximum Overrange Pressure Rating		
	MPa	psi	bar or kg/cm ²
C	0.31	45	3.15
D	3.1	450	31.5
E	31	4500	315

Supply Voltage - mA Output

11.5 to 42 V DC

Relative Humidity

0 to 100%

Sensor Body Temperature

Silicone Fill Fluid : -46 to +121°C

Fluorinert Fill Fluid : -29 to +121°C

Electronics Temperature

Without Indicator : -40 to +85°C

With Indicator : -20 to +82°C

LCD Indicator and Push Buttons

Standard for IGP10-A and IGP10-I, optional for IGP10-D and IGP10-T.

The indicator provides two lines; 5 numeric characters on the top line and 7 alphanumeric characters on the bottom line.

The pushbuttons allow for configuration of:

- adjustable damping
- forward or reverse output
- failsafe output (upscale or downscale)
- re-ranging without applying pressure (not -I)

Optional External Zero Adjustment

External zero adjustment makes it easier to zero the transmitter in the field, especially in hazardous locations.

Physical Specifications**Process Connection and Sensor Materials**

Standard process connection material is 316L Stainless Steel. Sensors are available in 316L Stainless Steel or Co-Ni-Cr.

Process Connections

The IGP10 pressure transmitter features a ½" NPT(M) process connection, with a ¼" NPT(F) internal thread.

Sensor Fill Fluids

Silicone Oil or Fluorinert.

Environmental Protection

The transmitter is dust-tight and weatherproof per IEC IP66 and provides the environmental and corrosion resistant protection of NEMA Type 4X.

Mounting Position

The transmitter may be mounted in any orientation. Any zero effect caused by the mounting position can be eliminated by re-zeroing.

Approximate Mass

IGP10 Pressure Transmitter - 1.5 kg

With LCD indicator - Add 0.2 kg

Performance Specifications**Accuracy**

Version	Configured Output Signal	Accuracy in % of Calib. Span
IGP10-D & IGP10-T	Digital 4-20 mA	±0.07 ±0.10
IGP10-I & IGP10-A	4-20 mA	±0.20

Includes Linearity, Hysteresis and Repeatability.

Not valid for small spans.

Stability

Long term drift is less than ±0.1% of upper range limit over a 12-month period.

Ambient Temperature Effect

Less than ±0.2% of upper range limit for a 55°C change.

Further Information

For more comprehensive specifications, please refer to the following Foxboro Product Specification Sheets:-

IDP10-A : PSS 2A-1C13C

IDP10-I : PSS 2A-1C13C

IDP10-T : PSS 2A-1C13B

IDP10-D : PSS 2A-1C13A

These are available from Thermocouple Instruments Ltd, on request.



I/A Series Gauge Pressure transmitters are also available in 'bracket-mounting' design (Model Code IGP20).

The direct mounting version can also be supplied for absolute pressure applications (Model Code IAP10).

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