

MINIATURE FLUSH DIAPHRAGM PRESSURE TRANSDUCER

Model & 188-DEMO Pressure, DEMO Sertal & DEMO

Model 188



Model 288 / 388
Miniature Flush Diaphragm
Pressure Transducer

MODEL 188 / 288 / 388

FEATURES:

- Flush diaphragm eliminates port plugging
- Compact, lightweight design <2 oz (56.7 gm)
- All-welded stainless steel construction
- Designed to eliminate any zero installation effect
- Rated for high shock and vibration applications
- -65 °F to +250 °F (-53.8 °C to +121.1 °C) operating temperature range (Optional -320 °F to +385 °F)
- Optional high-frequency response (>3 kHz)

APPLICATIONS:

- Adhesive, sealants & paint systems
- Food processing
- Extrusion
- Test stands
- Hydraulic systems

PRODUCT OVERVIEW:

Model 188/288/388 from GP:50 is a family of all-welded stainless steel miniature flush diaphragm pressure transducers. Their unique design incorporates a specialty flush process connection. This allows the transducer to effectively support higher viscosity fluid pressure measurements without port clogging or plugging. Their compact size allows for ease of installation within space constrained environments.

FIELD OPTIONS:

- 7/16-20 UNF flush pressure port
- 6-pin Bendix PTIH-10-6P standard (other connectors available)
- Temperature output, RTD, Type J & Type K thermocouples
- Hastelloy, Inconel wetted parts
- Extended temperature range of -65 °F to +350 °F (-54 °C to +177 °C)

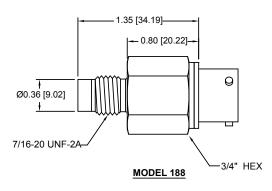


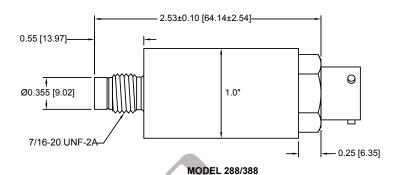
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GP:50 MODEL 188 / 288 / 388

DIMENSIONAL DRAWING

All dimensions are in inches (mm)





STANDARD WIRING

PIN	MODEL 188	MODEL 288	MODEL 388		
A/1	+EXC	+EXC	+EXC/SIG		
B/2	+SIG	+SIG	N/C		
C/3	-SIG	N/C	N/C		
D/4	-EXC	-EXC/SIG	-EXC/SIG		
E/5	N/C	N/C	N/C		
F/6	N/C	N/C	N/C		

	A/1	+EXC	+EXC	+EXC/SIG
	B/2	+SIG	+SIG	N/C
	C/3	-SIG	N/C	N/C
	D/4	-EXC	-EXC/SIG	-EXC/SIG
	E/5	N/C	N/C	N/C
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REFERENCE SPECIFICATIONS

ELECTRICAL

• Excitation Voltage:

(Model 188) 5 to 15 Vdc maximum (Model 288/388) 8 to 32 Vdc

Output Signal:

(Model 188) 2 mV/V

(Model 288) 0 to 5 Vdc, 0 to 10 Vdc (Model 388) 4-20 mA

Zero and Span Balance:

± 1% FSO each

• Bridge Impedance:

(Model 188) 5000 Ω standard (350 Ω optional)

• Circuit Protection:

(Model 288/388)

Reverse polarity & Over voltage protection

Response Time:

(Model 188) 3 to 5 KHz

(Model 288/388) < 1m Sec

MATERIALS OF CONSTRUCTION

• Wetted Parts:

Pressure port: 17-4 PH stainless steel (Inconel, Hastelloy optional)

Housing:

300 series stainless steel

STATIC ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)

(Model 188) $\pm 0.5\%$ FSO <4000 PSI (276 BAR)

 $\pm 0.25\%$ FSO ≥ 5000 PSI (345 BAR)

(Model 288/388) ±0.25%

(optional $\pm 0.10\%$ or $\pm 0.05\%$ FSO)

MECHANICAL

- Process Connection: 7/16-20 UNF
- Electrical: PTIH-10-6P (consult factory for other options)
- Proof Pressure: 2X range or 22.5K PSI max. (1,551 BAR)
- Burst Pressure: 4X range or 25K PSI max. (1,723 BAR)
- Weight:

(Model 188) <2 oz. (57 gm)

(Model 288/388) < 2.5 oz. (70 gm)

PRESSURE RANGES

(Model 188) 300 PSI to 20K PSI (21 to 1,379 BAR) (Model 288/388) 100 PSI to 20K PSI (7.0 to 1,379 BAR) (consult factory for other ranges)

THERMAL SPECIFICATIONS

- Compensated: $-30 \,^{\circ}\text{F}$ to $+170 \,^{\circ}\text{F}$ ($-34 \,^{\circ}\text{C}$ to $+77 \,^{\circ}\text{C}$)
- Operating: -65 °F to +250 °F (-54 °C to +121 °C) Optional extended range 188: -65 °F to +350 °F (-54 °C to +177 °C)
- Storage Ambient: -65 °F to +250 °F (-54 °C to +121 °C)
- Effect on Zero/Span:

(Model 188) $\pm 2\%/100$ °F (Zero/Span)

(Model 288/388) ±0.5%/100 °F (Zero/Span)

Optional ±0.25%/100 °F

OPTIONAL VARIATIONS

Consult factory

Standard configurations shown. Please consult factory for other options.

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.

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