

# DIAPHRAGM



### **PRODUCT OVERVIEW:**

The Model 311-IM from GP:50 is a flush mounted, hazardous location approved pressure transducer, designed to provide added reliability within slurry or thick process media applications. Their rugged, all-welded flush mounted design facilitates accurate measurements of corrosive or higher viscosity media, in applications where non-flush port sensors are otherwise prone to clogging or damage. No zero offset is caused during sensor installation.

- Flush sensor eliminates media plugging
- 0-50 thru 0-750 PSI (4 thru 50 BAR)
- No zero offset due to installation
- FM, CSA, ATEX, and IEC approvals
- Rugged, all-welded stainless steel design
- Optional 5X proof pressure
- Optional tri-clamp adapter

### **APPLICATIONS:**

- Blender discharge
- Frack pump suction pressure
- Wellhead control
- Sludge and slurries
- Adhesives and paints

### **OPTIONS:**

- FM, FM/CSA: Class I/II/III, Div 1, Grps A-G, T6 at Ta=40C
- FM: Class I, Zone 2 AEx nC IIC T5, Class I, Div. 2, Grp. A, B, C, D Class II, Grp. E, F, G, Class III T5, Ta = 80C
- CSA: Ex nA IIC T5, Ex nL IIC T5, Class I Div. 2 Grp. A, B, C, D Class II Div. 2 Grp. E, F, G Class III T5, Ta=80C
- ATEX: CE0575 II 3 G Ex nA IIC, Ex ic IIC T5, Ta=80C
- IEC: Ex na IIC, Ex ic IIC T5, Ta=80C (all Zone 2/Div 2 approvals are electrical connector dependent)

For details of available approvals go to: https://www.gp50.com/certifications

© 2015 GP:50 NY Ltd. 2770 Long Road, Grand Island, NY 14072 USA



# GP:50 MODEL 311-IM

# **REFERENCE SPECIFICATIONS**

# (Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	4-20 mA
Excitation Voltage:	10 to 28 Vdc
Load Impedance:	750 Ω max. to 24 Vdc
Insulation Resistance:	>10 MΩ @ 50 Vdc, +70 °F
Circuit Protection:	RFI and EMI
Response Time:	<5 ms 10% to 90%

MATERIALS OF CONSTRUCTION		
Wetted Parts:	Inconel 718 and 316 stainless steel (optional Hastelloy, consult factory)	
Housing:	316 stainless steel	

ACCURACY (BFSL): Hysteresis, non-Linearity & Repeatability @ + 70 °F	
Standard:	±0.5%
Improved:	±0.2%
Zero Balance and FSO:	±1.0% at +70 °F

MECHANICAL	
Process Connection:	1/2" NPT (M)
Electrical Connection:	6-pin Bendix connector (other options available)
Proof Pressure:	2X FSO (5X optional)
Burst Pressure:	5X FSO
Approximate Weight:	0.7 lb (260 g) nominal options may increase weight

### **PRESSURE RANGES**

0 to 50 PSI thru 0 to 750 PSI (0 to 3 thru 0 to 50 BAR) (PSIG, PSIS, PSIA)

THERMAL SPECIFICATIONS	
Operating Range:	-40 °F to +176 °F (-40 °C to +80 °C)
Compensated Range:	0 °F to +180 °F (-18 °C to +82 °C)
Storage Ambient:	-65 °F to +250 °F (-53 °C to +121 °C)
Effect on Zero/Span:	±2.0% FSO/100 °F

#### **APPROVALS**

FM, FM/CSA: Class I/II/III, Div 1, Grps A-G, T6 at Ta=40C

FM: Class I, Zone 2 AEx nC IIC T5, Class I, Div. 2, Grp. A, B, C, D Class II, Grp. E, F, G, Class III T5, Ta = 80C

CSA: Ex nA IIC T5, Ex nL IIC T5, Class I Div. 2 Grp. A, B, C, D Class II Div. 2 Grp. E, F, G Class III T5, Ta=80C

ATEX: CE0575 II 3 G Ex nA IIC, Ex ic IIC T5, Ta=80C

IEC: Ex na IIC, Ex ic IIC T5, Ta=80C (all Zone 2/Div 2 approvals are electrical connector dependent)



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.