

DYNISCO MODEL PT390

Oil Field Pressure Transmitter

Description

The PT390 oil field transmitter is available in pressure ranges from 5,000 to 20,000 psi. The pressure sensing diaphragm utilizes high resistance foil strain gages coupled to a sealed amplifier module. The module produces a 2 - wire, 4 to 20 mA output signal proportional to applied pressure. Specifically designed to withstand aggressive oil field applications, the PT390 meets NEMA 4X environmental standards. Wetted parts are made from Inconel X - 750 to meet NACE standard MR - 01 - 75 for sour gas service. PT390 accuracy is within 0.25% of full scale pressure including linearity, hysteresis and repeatability.

Features

- Larger, tapered pressure port
- 100% calibration output signal
- Amplifier module is sealed and potted in separate metal enclosure
- Hermetically sealed, stainless steel construction
- High resistance, isolated strain gage bridge
- NEMA 4X classification
- Approved by FM and SIRA
- Meets CENELEC standards
- Inconel pressure fitting
- Tested per EC801 - 3 standard

- Easily accessible amplifier and connector
- Recessed design
- Two year warranty
- Built for cementing, acidizing, fracturing, stimulation, MWD, mud flow, standpipe

Benefits

- Easy to clean, drains readily after washdown
- Easy to set system span in the field
- Extra environmental protection

- Withstands severe shock and vibration
- Low power drain, rapid warm - up, better stability
- For outdoor use
- For use in hazardous areas
- For intrinsically safe operation
- Meets NACE standard MR - 01 - 75 for sour gas service
- Excellent RFI/EMI protection against a broad spectrum of electrical noise
- Less repair time at a lower cost
- Nameplate protected from damage
- Guaranteed product performance
- Handles numerous applications



Specifications

Performance Characteristics

Ranges (psi): 0 - 5,000, 0 - 6,000, 0 - 10,000, 0 - 15,000, 0 - 20,000
Accuracy: $\pm 0.25\%$ FSO including linearity, hysteresis and repeatability
Repeatability: $\pm 0.10\%$ FSO

Full scale output: 16.00 ± 0.08 mA
Output at zero pressure: 4 mA ± 0.16 mA

Electrical Characteristics

Output signal: 4 to 20 mA, 2 - wire current loop
Supply voltage: 8 to 30 Vdc
Power supply regulation: $\pm 0.01\%$ full scale per volt
Load resistance: 1,100 Ohm at 30 volts decreasing linearly to 0 Ohm at 8 volts
Calibration output signal: 100% $\pm 0.25\%$ FSO
Calibration voltage: 11 to 30 Vdc

Circuit protection: Reverse polarity protection of supply leads
RFI/EMI protection: $< \pm 0.5\%$ FSO change when 3 volts peak to peak are applied to any input with respect to the case up to 3 MHz; $< \pm 1.5\%$ FSO change when subjected to a 10 volts per meter field, 80 to 1000 MHz, tested per IEC801 - 3
Insulation resistance: > 100 megohm at 50 Vdc

Temperature Characteristics

Operating temperature range: -65° to $+250^{\circ}$ F (-54° to $+120^{\circ}$ C)
Compensated temperature range: -30° to $+180^{\circ}$ F (-35 to $+82^{\circ}$ C)
Storage temperature range: -67° to $+302^{\circ}$ F (-55° to $+150^{\circ}$ C)

Temperature effect on zero: $\pm 0.01\%$ full scale/ $^{\circ}$ F ($\pm 0.018\%$ full scale/ $^{\circ}$ C)
Temperature effect on span: $\pm 0.01\%$ full scale/ $^{\circ}$ F ($\pm 0.018\%$ full scale/ $^{\circ}$ C)

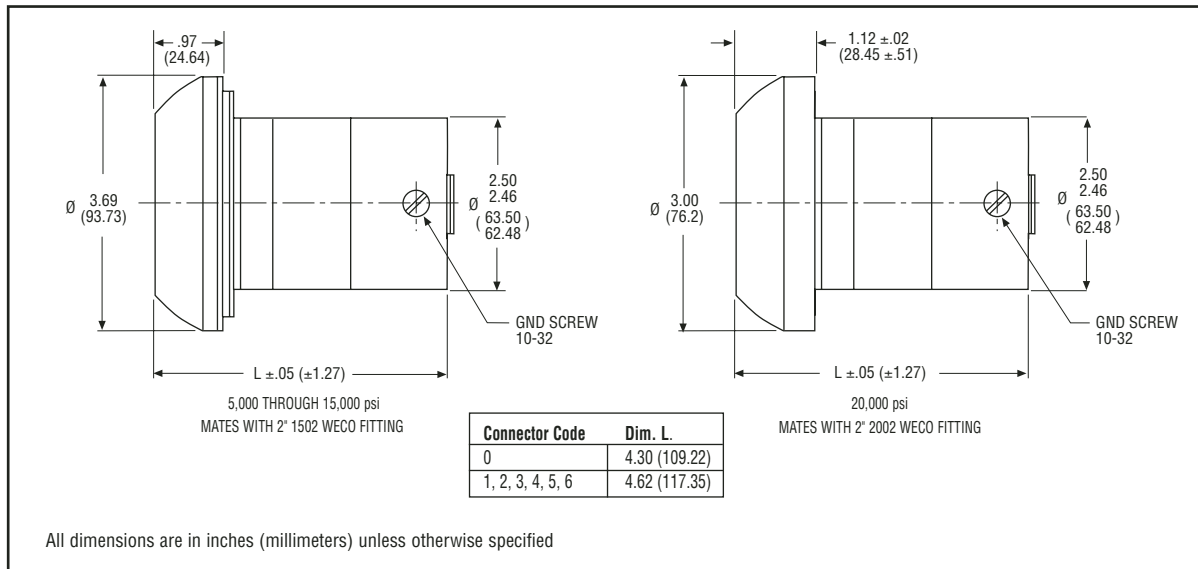
Mechanical Characteristics

Pressure connection:
#1502 WECO Wing Union, 5,000 - 15,000 psi (test pressure 22,500 psi);
#2002 WECO Wing Union, 20,000 psi (test pressure 30,000 psi)
Safe overpressure: 1.67 x pressure range, limited by Wing Union

Burst pressure: 3 x pressure range, limited by Wing Union
Materials of construction: Inconel X - 750 pressure fitting; 304 stainless steel cover
Weight: 4.5 lbs. (204 Kg)

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Ordering Guide

Model	Connector		Pressure Range (psi)		Option
	Code	Description	Code	Range	
PT390	0	Glenair GC379 - 2 - 14S - 2P			A191 20,000 psi range, (2002 WECC Fitting)
	1	Jupiter REC - M - 10TP - N - 04 - 016	5M	0 - 5,000	
	2	Bendix PT02H - 10 - 6P	6M	0 - 6,000	
	3	Lemo ERA - 4E - 305 - CNL	10M	0 - 10,000	
	4	Lemo EGG - 4K - 310 - CNL	15M	0 - 15,000	
	5	Bendix PT02H - 10 - 6P	20M	0 - 20,000	

Connector Wiring

Code	PIN				
0	A. Calibration (-)	B. Input (-)	C. Input (+)	D. Calibration (+)	
1	1. Calibration (-)	2. Calibration (+)	3. Input (-)	4. Input (+)	
2	A. Input (+)	B. Input (-)	C, D No connection	E. Calibration (+)	F. Calibration (-)
3	1. Input (+)	2. No connection	3. Input (-)	4. Calibration (+)	5. Calibration (-)
4	5. Input (+)	6. Input (-)	9. Calibration (+)	10. Calibration (-)	1 - 4, 7, 8 No connection
5	A. Input (+)	B. Input (-)	C. Calibration (-)	D. Calibration (+)	E, F No connection
6	A, B, C, D, E, H No connection	F. Input (-)	G. Input (+)		

Note: Mating connector not provided with transmitters

Ordering Example: PT390 - 4 - 6M

Delivery

Please call for specific delivery information.