

Data Sheet

GC51 Pressure Transmitter

FEATURES

- Bright backlit 4-digit LCD display
- “Loop Check” function allows unit to output 4-20 mA without applying pressure
- Internal “push-button” configurability allows quick range changes
- “Min./Max. Hold” function allows display to capture pressure events
- Easily rotatable display, 90° increments

TYPICAL USES

- Pump control
- Hydraulic systems
- Compressor control
- Process automation
- Municipal water tank level

PERFORMANCE SPECIFICATIONS

Reference Temperature:	73 °F (23 °C)
Accuracy:	±0.25% of span (All ranges through 7500 psi) ±0.5% of span (9.00 and 15.00 ksi ranges) ±1.0% of span (20.00 ksi range) (includes effects of linearity, hysteresis & repeatability)
Stability:	±0.25% of span upper range limit (URL)/year
Output Resolution:	0.1% of span (URL)

ENVIRONMENTAL SPECIFICATIONS

Temperature Effects:	14 °F to 140 °F (–10 °C to 60 °C) ±0.02% of span (URL)/°C
Temperature Limits:	Storage: –4 °F to 158 °F (–20 °C to 70 °C) Operating: 14 °F to 140 °F (–10 °C to 60 °C) Compensated: 14 °F to 140 °F (–10 °C to 60 °C)

FUNCTIONAL SPECIFICATIONS

Overpressure:	Proof:	Burst:
≤1,500 psi	2 X Range	5 X Range
3,000 & 5,000 psi	1.5 X Range	3 X Range
7,500 psi thru 20 ksi	1.2 X Range	3 X Range
Response Time:	30 ms (user adjustable)	
Vibration:	5 g's 150 Hz	
Shock Effect:	10 g's 16 ms	
Display:	4 digit, 10 mm LCD with LED backlight Accuracy: ± 0.25% of span (URL) + last digit	

ELECTRICAL SPECIFICATIONS

Output Signal:	4-20 mA (2 Wire)
Supply Voltage:	12-32 Vdc
Rangeability/ Adjustment:	Zero: -10% to +110% span Span: -10% to +110% span (Accuracy and output resolution based upon the span (URL) value)



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KEY BENEFITS

- Robust NEMA 4 (IP66) aluminum die cast housing
- Scaling function allows display to indicate user defined physical units
- Up to 8X smaller than a conventional process transmitter

ELECTRICAL SPECIFICATIONS (Continued)

Insulation Resistance:	50 Vdc (>100 MΩ)
EMC Compliance:	EMC Directive 2004/108/EC IEC/EN 61326-1: 2006 (EMI Class A/ EMS Table 2) IEC/EN 61326-2-3: 2006 (Annex BB (Pressure Transducer))

PHYSICAL SPECIFICATIONS

Process Connection:	All ranges through 9.00 ksi: ¼ NPT Female Ranges 15.00 ksi and 20.00 ksi: ⅜-18 UNF-2B for ¼" O.D. High Pressure Tubing
Weight:	Approx. 1.0 lb.
Environmental Rating:	IP66/NEMA 4
Electrical Connection:	½ NPT Female Conduit Cable Gland (Cable diameters 0.35" to 0.47")

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PHYSICAL SPECIFICATIONS (Continued)

Mounting: Mounting bracket included

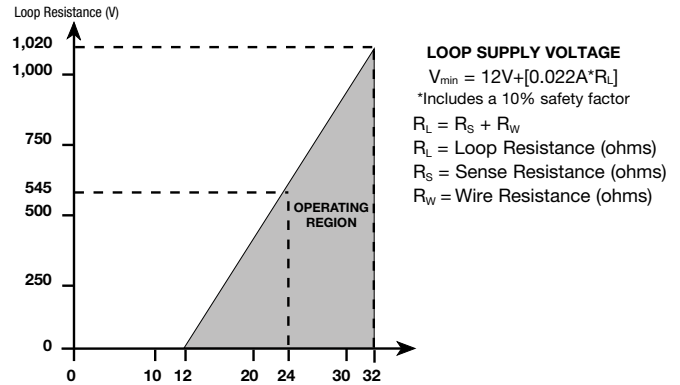
WETTED MATERIAL

Diaphragm	Process Connection	Media Compatibility
17-4 PH® SS	316 Stainless steel	Fluids and gases compatible with 316 Stainless steel and 17-4 PH® Stainless steel

NON-WETTED

Enclosure
Aluminum, epoxy coated

LOAD LIMITATIONS 4-20 mA OUTPUT ONLY



ORDERING CODE

Example:

Model	GC51	7	F02	42	CG	15#&VACG	- XRH
GC51 - Rangeable pressure transmitter	GC51						
Accuracy		7					
7 - ±0.25% of span on ranges through 7,500 psi ±0.5% of span on 9.00 & 15.00 ksi ranges ±1.0% of span on 20.00 ksi range		7					
Pressure Fitting			F02				
F02 - ¼ NPT Female (select for all ranges through 9.00 ksi) F09 - ½-18 UNF-2B for ¼" O.D. High Pressure Tubing (select for 15.00 and 20.00 ksi ranges)			F02				
Output Signal				42			
42 - 4-20 mA Output signal				42			
Electrical Connection					CG		
CG - Cable gland CD - ½ NPT Female conduit					CG		
Pressure Range							
Vacuum							
0#&VACG - -14.7 to 0 psi							
Compound							
N3/3# -3 to 3 psi N7.5/7.5# -7.5 to 7.5 psi							
15#&VACG - -14.7 to 15 psi 30#&VACG - -14.7 to 30 psi 50#&VACG - -14.7 to 50 psi						15#&VACG	
Gauge							
5#G - 0 to 5 psi 7.5#G - 0 to 7.5 psi 15#G - 0 to 15 psi 30#G - 0 to 30 psi 50#G - 0 to 50 psi 100#G - 0 to 100 psi 150#G - 0 to 150 psi 300#G - 0 to 300 psi 500#G - 0 to 500 psi 1000#G - 0 to 1,000 psi 1500#G - 0 to 1,500 psi 3000#G - 0 to 3,000 psi 5000#G - 0 to 5,000 psi 7500#G - 0 to 7,500 psi 9000#G - 0 to 9.00 ksi, Note 1 (accuracy is ±0.5% of span) 15000#G - 0 to 15.00 ksi, Note 1 (accuracy is ±0.5% of span) 20000#G - 0 to 20.00 ksi, Note 1 (accuracy is ±1.0% of span)							
Absolute							
20#A - 0 to 20 psia							
Option (if including an option(s) must include an "X")							
RH - Traceable calibration certificate 6B - Cleaned for oxygen service							X__ RH

Note 1 Due to 4 digit display and internal count/resolution limitation, multiply the displayed value x 1000 to determine the psi value.

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DIMENSIONS are in inches and [millimeters]

For reference only, consult Ashcroft for specific dimensional drawings

Installation Drawings

