

## Model GC51 Rangeable Pressure Transmitter



ACTUAL SIZE



### FEATURES:

- Up to 8 times smaller than a conventional process transmitter
- Robust NEMA 4X (IP65) aluminum die cast housing
- Bright backlit LCD display
- All stainless steel wetted parts
- 2 wire 4-20mA
- Internal "Push Button" configurability allows quick range changes
- Scaling function allows display to indicate arbitrary physical units
- "Loop Check" function allows unit to output 4-20mA without applying pressure
- "Min / Max Hold" function allows display to capture pressure events
- Easily rotatable display, 90° increments

### APPLICATIONS:

The GC51 utilizes Ashcrofts' proven polysilicon thin film sensor which makes the design suitable for applications where high overpressure and high cycle life are necessary, typically required in;

- Pump Control
- Hydraulic Systems
- Compressor Control
- Process Automation
- Municipal Water Tank Level

### PERFORMANCE SPECIFICATIONS

**Reference Condition:** 23°C ±2° (73°F)

**Accuracy:** ±0.25% FS (URL)  
(Accuracy includes the effects of linearity, hysteresis, and repeatability)

**Stability:** ±0.25% FS/year

**Response Time:** 30msec

**Output Resolution:** 0.1% FS (URL)

#### Display:

Type: 3½ digit, 10mm LCD with LED backlight  
Accuracy: ± 0.25% FS (URL) + last digit

#### Standard Ranges (Compound):

-15 to 15psi, -15 to 30psi, -15 to 50psi

#### Standard Ranges (Gauge):

0-50psi, 100psi, 150psi, 300psi, 500psi, 1000psi,  
1500psi, 3000psi, 5000psi, 7500psi

### ENVIRONMENTAL SPECIFICATIONS

#### Temperature Limits

Storage: -20 to 70°C (-4 to 158°F)

Operating: -10 to 60°C (14 to 140°F)

Compensated: -10 to 60°C (14 to 140°F)

#### Temperature Effects (-10 to 60°C):

±0.02% FS (URL)/°C from 23°C reference

### FUNCTIONAL SPECIFICATIONS

Overpressure (F.S.):	Proof	Burst
1500psi and below	200%	500%
3000, 5000psi	150%	300%
7500psi	120%	150%

**Vibration:** 5g's 150Hz

**Shock:** 10g's 16ms

### ELECTRICAL SPECIFICATIONS

**Output Signal:** 4-20mA (2 Wire)

**Supply Voltage:** 12-32Vdc

#### Rangeability / Adjustment\*:

Zero -10% to +110% FS

Span -10% to +110% FS

**\*Note:** Accuracy and output resolution based upon full scale (URL) value

**Insulation Resistance:** 50Vdc (>100Mohms)

**CE Compliance:** EN 613261 1997, A1/1998, A2/2001  
(Heavy Industrial)

### MECHANICAL SPECIFICATIONS

**Pressure Connection:** ½ Female NPT

**Enclosure:** Aluminum, epoxy coated

**Rating:** IP65 / NEMA 4X

#### Electrical Connection (Options):

- ½ Female NPT Conduit
- Cable Gland (Cable Diameters 0.35" to 0.47")

**Weight:** Approx. 1.0 lb

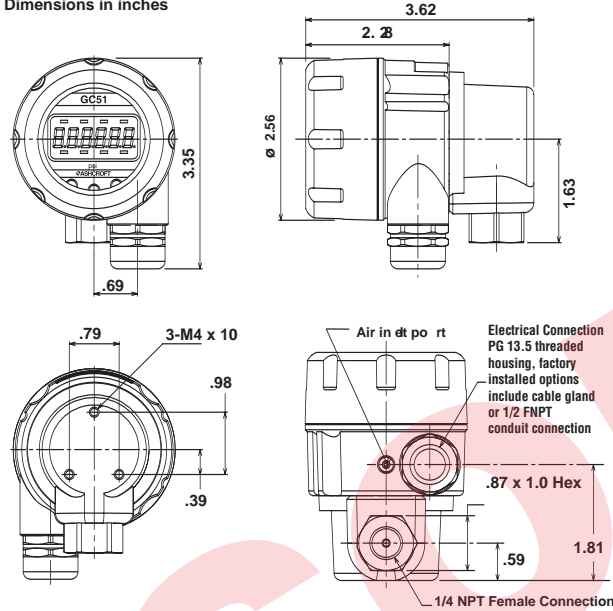
**Mounting:** Mounting Bracket (see installation drawings on back)

**Media:** Fluids and gases compatible with 316SS and pH17-4 stainless steel

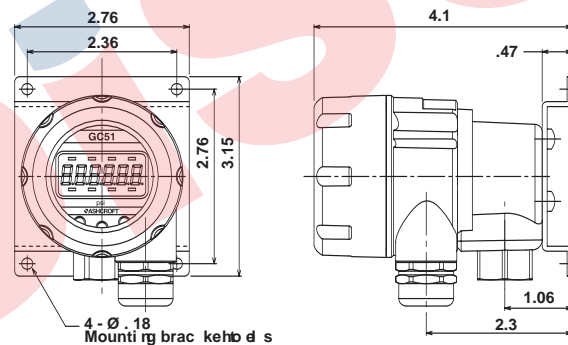
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## Dimension Drawings

Dimensions in inches

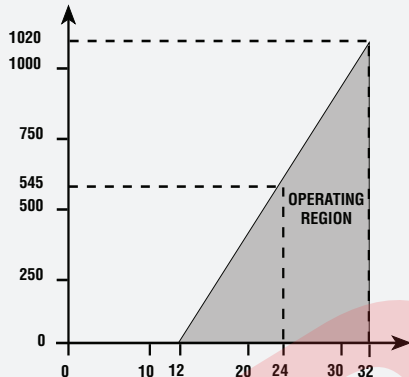


## Installation Drawings



## Load Limitations 4-20mA Output Only

Loop Resistance (Ω)



LOOP SUPPLY VOLTAGE

$$V_{min} = 12V + [.022A \times R_L]$$

\*Includes a 10% safety factor

$$R_L = R_S + R_W$$

$R_L$  = Loop Resistance (ohms)

$R_S$  = Sense Resistance (ohms)

$R_W$  = Wire Resistance (ohms)

## How To Order

<b>GC51</b>	<b>7</b>					<b>X</b>
Type Configuration (GC51)	Accuracy (7) ±0.25% FS	Pressure Fitting (F02) 1/4 FNPT	Output Signal (42) = 4-20mA	Electrical Connection (CG) = Cable Gland (CD) = 1/2" FNPT Conduit	Pressure Range (Compound) 15#&VACG = Vac-15psi 30#&VACG = Vac-30psi 50#&VACG = Vac-50psi Pressure Range (Gauge) 50#G = 0-50psi 100#G = 0-100psi 150#G = 0-150psi 300#G = 0-300psi 500#G = 0-500psi 1000#G = 0-1000psi 1500#G = 0-1500psi 3000#G = 0-3000psi 5000#G = 0-5000psi 7500#G = 0-7500psi	Optional X-Variations XRH 9 pt. NIST traceable calibration certificate XGB Oxygen cleaned