GC52 Differential Pressure Transducer

FEATURES
- Bright backlit 4-digit LCD display
- Scaling function allows display to indicate user defined physical units
- Internal “push-button” configurability allows quick range changes
- “Loop Check” function allows unit to output 4-20 mA without applying pressure
- Linear flow output and totalization via square root extraction

TYPICAL USES
- Pressurized & non-pressurized tank levels
- Flow measurement (liquid/gas)
- Pollution monitoring equipment

PERFORMANCE SPECIFICATIONS
Reference Temperature: 73°F (23°C)
Accuracy: ±0.50% of span (URL) Includes the effects of linearity, hysteresis, and repeatability
Stability: ±0.25% of span (URL)/year
Output Resolution: 0.1% of span (URL)
Model: 4 digit, 10mm LCD with LED backlight

ENVIRONMENTAL SPECIFICATIONS
Temperature Effects: (–10°C to 60°C) ±0.03% FS/C°
Temperature Limits:
Storage: 5°F to 150°F (–15°C to 65°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
Static (Line) Pressure
Pressure Range: 4 IWC to ≤400 IWC
Proof: 300 psi
Burst: 800 psi

Single Side (Differential)
Pressure Range:
≤8 IWC, ±4 IWC
Proof: 30 psid
Burst: 130 psid
≥20 IWC, ±8 IWC
Proof: 100 psid
Burst: 130 psid

Static (Line) Pressure Effects
Pressure Range:
≥20 IWC, ±8 IWC
Effect: ±0.3% Range/100 psi (URL)
8 IWC, ±4 IWC
Effect: ±0.7% Range/100 psi (URL)
4 IWC
Effect: ±1.5% Range/100 psi (URL)
Response Time: 100ms (user adjustable)
Vibration: 5g’s 150Hz
Shock Effect: 10g’s 16ms

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 full scale (URL) value)
Insulation Resistance: 50 Vdc (>100 MΩ)
EMC Compliance:
EMC Directive 2004/108/EC
IEC/EN 61326-1: 2006 (EMI Class A/ EMS Table 2)
Data Sheet

GC52 Differential Pressure Transducer

**PHYSICAL SPECIFICATIONS**

Weight: Approx. 1.0 lb.

Environmental Rating: IP66/NEMA 4X

Mounting: Mounting bracket included

Pressure Connection: ¼ NPT Female

Electrical Connection (External): ½ NPT Female Conduit

Cable Gland (Cable diameters 0.35” to 0.47”)

**WETTED MATERIAL**

<table>
<thead>
<tr>
<th>Diaphragm</th>
<th>Process Connection</th>
<th>Media Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>316 SS, Viton® &amp; Alumina Ceramic</td>
<td>316 SS</td>
<td>Fluids and gases compatible with 316 SS, Viton® and Alumina Ceramic</td>
</tr>
</tbody>
</table>

**NON-WETTED**

Enclosure

Aluminum, epoxy coated

**OPTIONAL FEATURES**

Calibration Report: 9 point NIST traceable calibration report

Pressure Connection: 54mm conversion joint for 3-way manifold

**LOAD LIMITATIONS 4-20 mA OUTPUT ONLY**

**OPERATING REGION**

- **Loop Supply Voltage**
  \[ V_{in} = 12V + [0.022A \cdot R_L] \]

  *Includes a 10% safety factor

- **Loop Resistance (Ω)**

  \[ R_L = R_S + R_W \]

  \[ R_S = \text{Sense Resistance (ohms)} \]

  \[ R_W = \text{Wire Resistance (ohms)} \]

**ORDERING CODE**

**Example:** GC52 7 F02 42 CG 4IWL – XRH

**Model**

GC52 - Rangeable wet/wet differential pressure transmitter

**Accuracy**

7 - ±0.50% of span

**Pressure Fitting**

F02 - ¼ NPT Female

**Output Signal**

42 - 4-20 mA Output signal

**Electrical Connection**

CG - Cable gland

CD - ½ NPT Female conduit

**Pressure Range**

Bidirectional

4IWL - ±4 IWC

8IWL - ±8 IWC

20IWL - ±20 IWC

40IWL - ±40 IWC

80IWL - ±80 IWC

200IWL - ±200 IWC

Differential

4IW - 0-4 IWD

8IW - 0-8 IWD

20IW - 0-20 IWD

40IW - 0-40 IWD

80IW - 0-80 IWD

200IW - 0-200 IWD

400IW - 0-400 IWD

**Option (if including an option(s) must include an “X’’)**

RH - 9 pt. NIST traceable calibration certificate
GC52 Differential Pressure Transducer

**DIMENSIONS**

54mm Conversion Joint Body
Part Number 141A444-01