

Model GC51 Rangeable Pressure Transmitter



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 4-20 mA
- 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 °C

Accuracy: ±0,25 % FS (URL)
(Accuracy includes the effects of linearity, hysteresis, and repeatability)

Stability: ±0,25 % F.S./year

Response Time: 30 ms

Output Resolution: 0,1 % F.S. (URL)

Zero Offset: ±0,1 % F.S./year

Standard Ranges (Compound):
-15 ... 15, -15 ... 30, -15 ... 50 psi

Standard Ranges (Gauge):
0 ... 50, 100, 150, 300, 500, 1000, 1500, 3000, 5000, 7500 psi

Display: 6 digit LCD, 10 mm high, bright LED backlit and unit display

ENVIRONMENTAL SPECIFICATIONS

Temperature Limits

Storage: -20 to 70 °C
Operating: -10 to 60 °C
Compensated: -10 to 60 °C

Temperature Effects (-10 to 60 °C):
±0,02 % FS (URL) / K (Ref. 23 °C)

FUNCTIONAL SPECIFICATIONS

| Overpressure Proof | Burst |
|----------------------|-------|
| ≤ 1500 psi 200 % | 500 % |
| 3000, 5000 psi 150 % | 300 % |
| 7500 psi 120 % | 150 % |

Vibration: 5 g's 150 Hz

Shock: 10 g's 60 Hz

ELECTRICAL SPECIFICATIONS

Output Signal: 4 ... 20 mA (2 wire)

Supply Voltage: 12 ... 32 VDC

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: > 100 MΩ at 50 VDC

CE Compliance: EN 613261 1997, A1/1998, A2/2001

MECHANICAL SPECIFICATIONS

Pressure Connection: ¼ female NPT

Enclosure: Aluminum epoxy coated

Rating: IP65/NEMA 4X

Electrical Connection (Options):

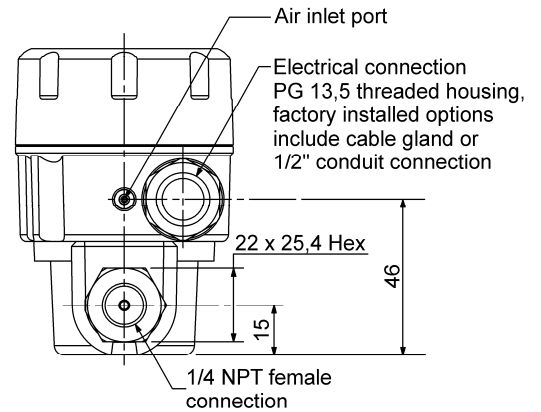
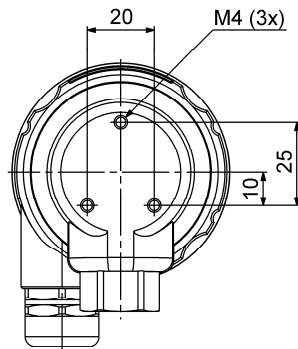
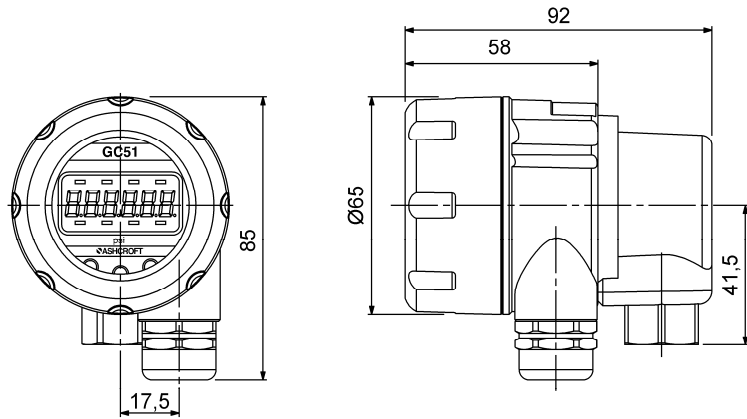
- PG13.5 female thread
- ½ NPT female conduit
- Cable gland PG9

Weight: Approx. 0,45 kg

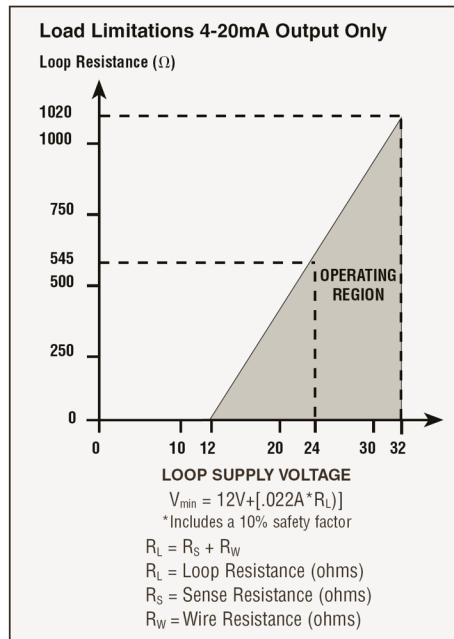
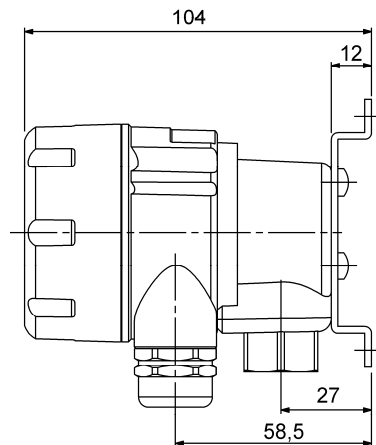
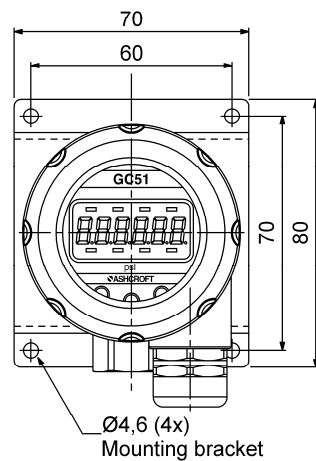
Mounting: Mounting bracket (see installation drawings on back)

Media: Fluids and gases compatible with 316 (1.4404) and 17-4PH (1.4542) stainless steel

General dimensions in mm



Installation drawing



Order information

| Type | Accuracy | Process Connection | Output signal | Electrical connection | Range | Eng. unit | Options |
|------|------------|----------------------|---------------|--|---|-----------|--|
| GC51 | (7) 0,25 % | (F02) 1/4 NPT female | (42) 4/20 mA | (CG) PG 13.5 female thread (CD) 1/2 MNPT conduit (PG9) Cable gland PG9 | VAC/ 15 VAC/ 30 VAC/ 50 0/ 50 0/ 100 0/ 150 0/ 300 0/ 500 0/ 1000 0/ 1500 0/ 3000 0/ 5000 0/ 7500 | PSI | (NH) Tagging wired (RH) 9 point NIST traceable calibration certificate (6B) Oxygen cleaned |

bar and others to be set by firm-ware

Order Example

| Type | Accuracy | Process connection | Output signal | Electrical connection | Range | Engineering unit | Options |
|------|----------|--------------------|---------------|-----------------------|-------|------------------|---------|
| GC51 | 7 | F02 | 42 | CG | 0/100 | PSI | NH |

Ashcroft Instruments GmbH

Germany
 Max-Planck-Str. 1, D-52499 Baesweiler
 P.O. Box 11 20, D-52490 Baesweiler
 Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France
 „206“ ZA Le Mandinet, 1/3 Rue des Campanules
 F-77185 Lognes
 Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: www.ashcroft.eu

United Kingdom
 Unit 5 William James House
 Cowley Road, Cambridge CB4 0WX
 Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01

Rev. A