

# Model GC31

## Ultra-Compact Digital Pressure Sensor



ACTUAL SIZE



### FEATURES:

- Ultra-compact design (30 mm x 30 mm)
- Combined three-in-one digital pressure gauge, switch and transducer
- Simple "Push-Button" configurability allows user to adjust switch settings, analog scaling
- Numerous standard ranges available

### APPLICATIONS:

- Hydraulic presses, stamping equipment, lifts
- Tire press vulcanization, pressure monitoring
- Water, refrigerant or ammonia based cooling systems
- Pressure monitoring on lubrication systems



### PRODUCT SPECIFICATIONS

#### Analog Output (1-5 VDC):

**Accuracy:**  $\pm 1,0\%$  F.S. (accuracy includes effects of linearity, hysteresis and repeatability)

**Response time:** 50 ms

**Output resolution:** 25 mV

**Analog scaling:** User may configure analog output scaling to any range within full scale of sensor range

#### Pressure Switch Output:

**Type:** NPN or PNP open collector up to 30 VDC/80 mA

**Setting Accuracy:**  $\pm 1,0\%$  F.S.

**Number of contacts:** 2

**Time delay:** 5 ms – 2,0 s (by user)

**Hysteresis:** Variable (by user)

**Switch setting:** User may adjust switch actuation and deadband to any points within full scale sensor range

### Display:

**Type:** 3 ½ digit, 10 mm LED

**Accuracy:**  $\pm 1,0\%$  F.S.  $\pm$  last digit

**Display setting:** User may re-configure display scaling, set to capture MIN or MAX value, and adjust display update rate.

### Metric Ranges in MPa:

1 2 3,5 5 10 20 35 50

### Metric Compound Ranges in MPa:

-0,1/1 -0,1/2

### Standard Ranges (Gauge) in psi:

50 100 150 300 500 1000 1500

### Standard Ranges (Compound) in psi:

-15/15 -15/75 -15/150 -15/300

### ENVIRONMENTAL SPECIFICATIONS

#### Temperature Limits:

Storage:  $-30$  to  $60\text{ }^{\circ}\text{C}$  ( $-22$  to  $140\text{ }^{\circ}\text{F}$ )

Operating:  $-20$  to  $60\text{ }^{\circ}\text{C}$  ( $-4$  to  $140\text{ }^{\circ}\text{F}$ )

Compensated:  $-10$  to  $50\text{ }^{\circ}\text{C}$  ( $14$  to  $122\text{ }^{\circ}\text{F}$ )

#### Temperature Effects:

Zero/Span: (from  $23\text{ }^{\circ}\text{C}$  ( $73\text{ }^{\circ}\text{F}$ ) reference temperature)

$\pm 0,05\%$  / K ( $\pm 0,03\%$  /  $^{\circ}\text{F}$ )

**Humidity:** 0-85 % RH (Non-Condensing)

### FUNCTIONAL SPECIFICATIONS

#### Proof pressure:

200 % for ranges  $\leq 3,5$  MPa (500 psi)

150 % for ranges  $\geq 5$  MPa (1000 psi)

**Burst pressure:** 800 % F.S.

#### CE Compliance:

EN 61326-1 2006, EN 61326-2-3 2006

### ELECTRICAL SPECIFICATIONS

#### Power Supply Requirements:

Supply voltage: 11-27 VDC

Current consumption: 30 mA (max.)

#### Switch Contacts:

(2) NPN or PNP open collector outputs

NPN Type: 30 VDC/80 mA (max.)

PNP Type: voltage drop 1 VDC (max) / 80 mA (max.)

### MECHANICAL SPECIFICATIONS

#### Pressure Connection:

G ¼ B male according EN 837-1, ¼ NPT male according ANSI/ASME B1.20.1/EN 837-1

**Enclosure:** ABS, polycarbonate, aluminum

**Rating:** IP40

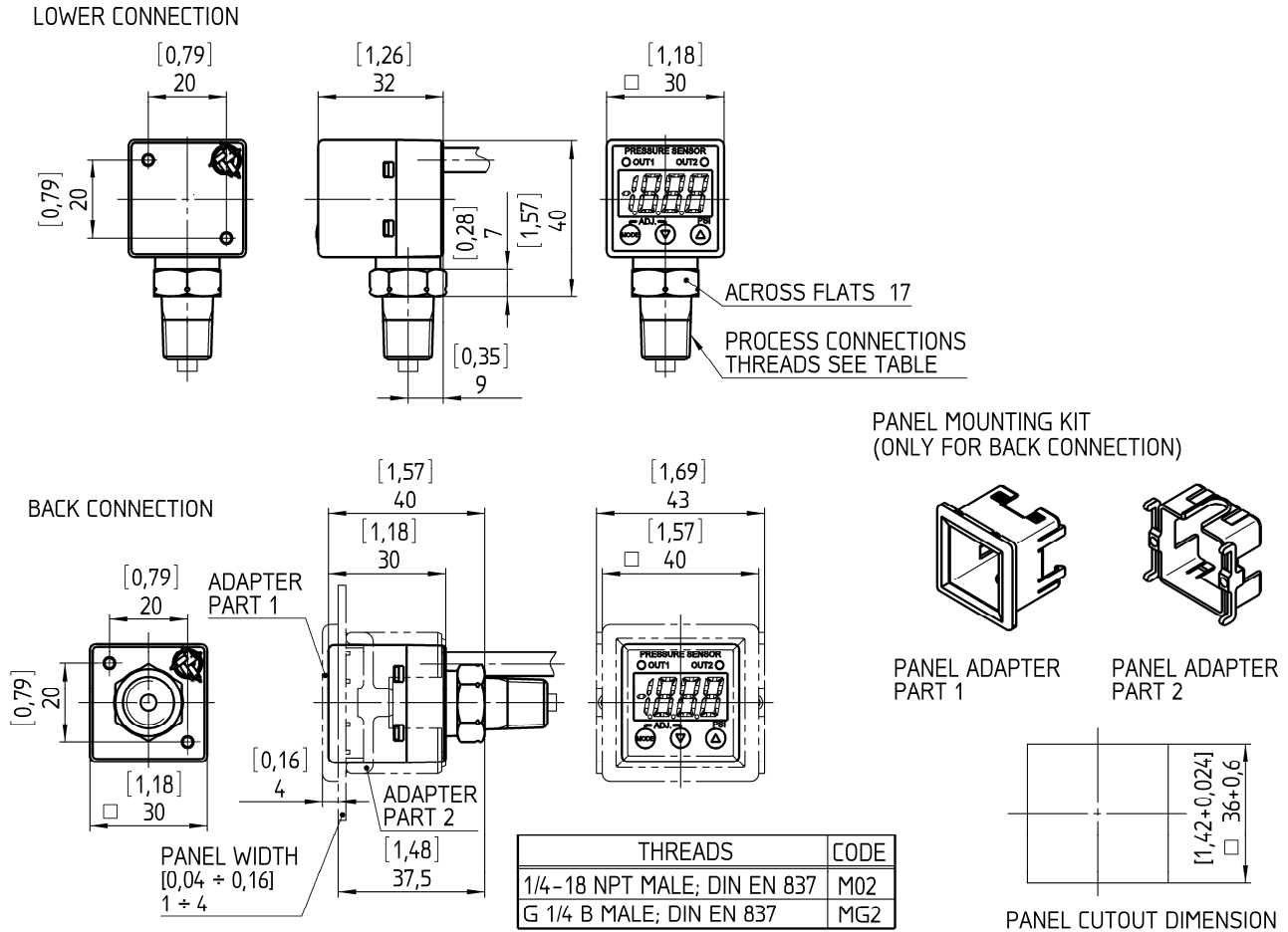
**Electrical Connection:** 2 m (6 ft) cable pigtail

**Weight:** Approx. 110 g

**Mounting:** Panel mounting bracket included (back connect only)

**Media:** Fluids and gases compatible with stainless steel 304 (1.4301) (sensor housing) and stainless steel 17-4 pH (1.4542/1.4548) (sensor diaphragm)

## General dimensions in mm [inch]



## Order information

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Eng. unit	Options
GC31	(7) 1,0 %	(M02L) ¼ NPT male, lower connect	(1N) 1-5 VDC analog w/2x NPN type switches	(F4) 2 m (6') cable	<b>Compound:</b>		(NH) Tagging wired  (RH) 9 point NIST traceable calibration certificate
					15#&V -15/15		
		75#&V -15/75					
		150#&V -15/150					
		300#&V -15/300					
		<b>Gauge:</b>			MPa		
		1MP&V -0,1/1					
		2MP&V -0,1/2					
		50#G 50				psi	
		100#G 100					
150#G 150							
300#G 300							
500#G 500							
1000#G 1000							
1500#G 1500							
1MPG 1		MPa					
2MPG 2							
3.5MPG 3,5							
5MPG 5							
10MPG 10							
20MPG 20							
35MPG 35							
50MPG 50							
(M02B) ¼ NPT male, back connect		(1P) 1-5 VDC analog w/2x PNP type switches					
(MG2L) G ¼ B male, lower connect							
(MG2B) G ¼ B male, back connect							

## Order example

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Engineering unit	Options
GC31	7	MG2L	1P	F4	1	MPG	RH

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