

# Model GC30

## Ultra-Compact Digital Differential Pressure Sensor



ACTUAL SIZE



### FEATURES:

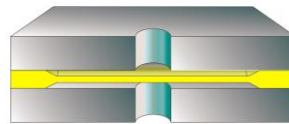
- Ultra-compact design (30 mm x 30 mm)
- Combined three-in-one digital pressure gauge, switch and transducer
- Simple "Push-Button" configurability allows user to adjust switch settings, analog scaling
- Numerous standard ranges available

### APPLICATIONS:

- Filter monitoring
- Clean room pressure differential
- Vacuum/suction pressure sensing and control
- Fan speed control

Featuring a highly reliable variable capacitance sensor using the patented Ashcroft® SiGlas™ sensor. This ultra-thin single crystal diaphragm provides inherent sensor repeatability and stability.

#### SENSOR CROSS SECTION



The silicon diaphragm sensor has no glues or other organics to contribute to drift or mechanical degradation over time.

### PRODUCT SPECIFICATIONS

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

**Accuracy:** ±1,5 % 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:** ±1,5 % 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:** ±1,5 % F.S. ± 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 Pa: 50 100 200 500

in kPa: 1 2 5

### Metric Compound Ranges:

in Pa: ±50 ±100 ±200 ±500

in kPa: ±1 ±2 ±5

### Inches of Water Column Ranges in "W.C.:

0,25 0,5 1 2,5 5 10 25

### Inches of Water Column Compound Ranges in "W.C.:

±0,25 ±0,5 ±1 ±2,5 ±5 ±10 ±25

### ENVIRONMENTAL SPECIFICATIONS

#### Temperature Limits:

Storage: -30 to 60 °C (-22 to 140 °F)

Operating: -20 to 60 °C (-4 to 140 °F)

Compensated: -10 to 50 °C (14 to 122 °F)

#### Temperature Effects:

Zero/Span: (from 23 °C (73 °F) reference temperature)

±0,15 % / K (±0,09 % / °F) for 500 Pa, ±500 Pa

(±2,5" W.C., 0/2,5" W.C.) and below

±0,10 % / K (±0,06 % / °F) for 1 kPa, ±1 kPa

(±5,0" W.C., 0/5,0" W.C.) and above

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

### FUNCTIONAL SPECIFICATIONS

**Proof pressure:** 50 kPa (7,5 psid)

**Burst pressure:** 170 kPa (25 psig)

**Max. static (line) pressure:** 50 kPa (7,5 psi)

#### 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:** 4 mm barb

**Enclosure:** ABS, polycarbonate, aluminum

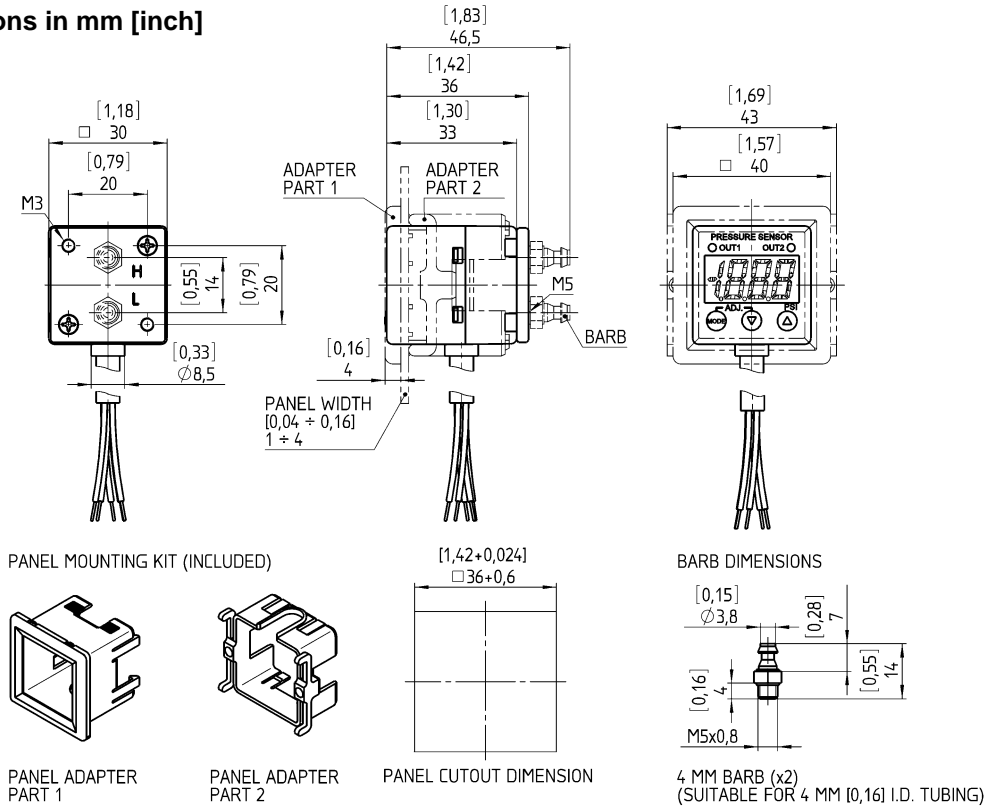
**Rating:** IP40

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

**Weight:** Approx. 75 g

**Mounting:** Panel mounting bracket included

**Media:** Clean, dry air/gases compatible with Aluminum, ABS, Ceramic, Silicon, and Silicone RTV

**General dimensions in mm [inch]**

**Order information**

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Eng. unit	Options
GC30	(9) 1,5 %	(M5B) 4mm ID barb	(1N) 1-5 VDC analog w/2x NPN type switches	(F4) 2 m (6') cable	<b>Bidirectional:</b>		(NH) Tagging wired  (RH) 9 point NIST traceable calibration certificate
					P25 ±0,25	IWL in. H <sub>2</sub> O	
					P5 ±0,5		
					1 ±1		
					2P5 ±2,5		
					5 ±5		
			10 ±10				
			25 ±25	PAL Pa			
			50 ±50				
			100 ±100				
			200 ±200				
			500 ±500				
1 ±1							
2 ±2	KPL kPa						
5 ±5							
<b>Unidirectional:</b>							
P25 0,25		IW in. H <sub>2</sub> O					
P5 0,5							
1 1							
2P5 2,5							
5 5							
10 10							
25 25	PA Pa						
50 50							
100 100							
200 200							
500 500							
1 1		KP kPa					
2 2							
5 5							

**Order example**

Type	Accuracy	Process connection	Output signal	Electrical connection	Range	Engineering unit	Options
GC30	9	M5B	1N	F4	100	PA	RH

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