

SDPGB Series

## Battery-Powered Digital Pressure Gauges



**0-15 psig to 0-1000 psig,  
and -30 in Hg to 100 psi**

The SenSym ICT Digital Pressure Gauge Series devices are designed for pressure applications that involve measurement of any media compatible with 316 stainless steel. With its common 1/4" NPT fitting, the device is designed for many applications requiring precision, ruggedness and reliability combined with a long battery life. The digital readout provides real-time information at the push of a button.

Designed for battery operation, this digital gauge has an automatic shutoff feature allowing the user to walk away after taking a reading. The SenSym ICT Digital Pressure Gauge Series is designed for long-term usage. Zero and Span calibration are both possible, but only when the user has access to a reliable pressure reference of known accuracy.

Contact your local SenSym ICT representative, the factory, or go to SenSym ICT's web site at [www.sensym-ict.com](http://www.sensym-ict.com) for additional details.

### APPLICATIONS

Process Control  
Test and  
Measurement

### FEATURES

±0.25% Test Gauge  
Accuracy  
316 Stainless Steel  
Sensor  
Long Battery Life  
Rugged Design



## SDPGB Series

### PRESSURE RANGE AND RESOLUTION SPECIFICATIONS

| SenSym ICT Part No. | Pressure Range        | Resolution | Rated Proof Pressure | Rated Burst Pressure |
|---------------------|-----------------------|------------|----------------------|----------------------|
| SDPGB-30+100PG5     | -30.0 inHg/100.0 psig | 0.1 psig   | 2x                   | 4x                   |
| SDPGB0015PG5        | 15.0 psig             | 0.01 psig  | 2x                   | 4x                   |
| SDPGB0030PG5        | 30.0 psig             | 0.1 psig   | 2x                   | 4x                   |
| SDPGB0100PG5        | 100.0 psig            | 0.1 psig   | 2x                   | 4x                   |
| SDPGB0200PG5        | 199.9 psig            | 0.1 psig   | 2x                   | 4x                   |
| SDPGB0300PG5        | 300 psig              | 1 psig     | 2x                   | 4x                   |
| SDPGB0500PG5        | 500 psig              | 1 psig     | 2x                   | 4x                   |
| SDPGB1000PG5        | 1000 psig             | 1 psig     | 2x                   | 4x                   |

### SDPGB SERIES ELECTRICAL CHARACTERISTICS

| Characteristic                                  |                                                                                                                                                  |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy (linearity, hysteresis, repeatability) | ±0.25% of full scale ±1 least significant digit typical                                                                                          |
| Temperature Stability (relative to 25°C)        | ±1% FS for offset and span, 0 to 70°C typical                                                                                                    |
| Display (update rate, type, size)               | 3 readings per second nominal display update rate<br>3-1/2 digit LCD, 1/2" digit height                                                          |
| Controls & Location                             | Front-accessible potentiometers, non-interactive zero and span<br>Front push button turns gauge on or off.<br>When on auto shut-off timer starts |
| Auto Shut-off Time                              | 5 minutes                                                                                                                                        |
| Battery and Battery Life                        | Two AA alkaline, approx. 2500 hours                                                                                                              |
| Low Battery Indication                          | "LOBAT" on display when battery must be replaced                                                                                                 |

### DIGITAL PRESSURE GAUGE CHARACTERISTICS

#### Environmental Specifications

|                         |               |
|-------------------------|---------------|
| Storage temperature     | -40° to +95°C |
| Operating temperature   | -20° to +85°C |
| Compensated temperature | 0° to +70°C   |

#### Mechanical Specifications

##### Size

3.38"W x 2.88"H x 1.65"D  
(not including pressure fitting)  
Add approximately 0.75" to height for pressure fitting

##### Weight (approximate)

Gauge: 9 ounces  
Shipping weight: 1 pound

##### Material & Color

Extruded aluminum case, epoxy powder coated  
Polycarbonate cover, front and rear gaskets  
Light gray body, light gray/blue front

##### Pressure/Vacuum Connection and Material

1/4" NPT male, 316 stainless steel

##### Media Compatibility

All wetted parts are 316 SS  
Compatible with most liquids and gases

### Installation

Tighten the gauge by using the wrench on hex fitting only. Do not tighten it by turning housing! Use fittings designed for the pressure range of the gauge. Do not apply vacuum to gauges not designed for vacuum operation.

### Operation

Press the round button on the front of the gauge to activate the display. The gauge will stay on for 5 minutes. After this time, the gauge will automatically shut off. The gauge can be shut off at any time by pressing the button again. "LOBAT" will appear in the upper left-hand corner of the display when the battery voltage falls sufficiently. The battery should be replaced soon after the LOBAT indicator comes on or unreliable readings may result.

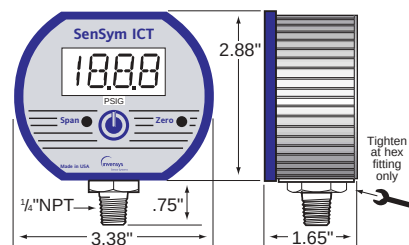
### Calibration

Remove the calibration potentiometer cover on the front of the unit to access the Zero and Span controls. The Zero and Span controls are non-interactive. The gauge port must be open to the ambient with no pressure or vacuum applied. Adjust the Zero control until the gauge reads zero with the minus (-) sign occasionally flashing.

Span calibration should only be attempted if the user has access to a pressure reference of known accuracy. The accuracy of the calibration equipment ideally should be at least four times the gauge accuracy. Zero calibration must be done before span calibration. Record readings at three to five points over the range of gauge and adjust span control to minimize error and meet specifications.

### Battery Replacement

Remove the six phillips head screws on the back of the unit. Carefully remove batteries from the holders by lifting up the positive end of the battery (opposite the spring). Take care not to bend or distort the battery retention springs. DO NOT discard the old battery into fire, any other sources of extreme heat, or in any other hazardous manner. Always replace both batteries at the same time with high quality alkaline batteries. Observe the polarity of the batteries when replacing them. The negative (flat) end of each battery should be inserted first and should face the spring in the battery holder. Replace the back cover, including the rubber sealing gasket.



SenSym ICT maintains a constant effort to upgrade and improve its products, therefore specifications are subject to change. © Copyright 09/01