

# Digital Test Gauge

## Model CPG 1000

WIKA Datasheet CPG 1000

### Features

- Accuracy of  $\pm 0.05\%$  of F.S., supplied with N.I.S.T. certificate of accuracy
- Temperature compensated accuracy 0 to 50 °C
- 15 standard pressure ranges available
- Displays in 18 standard or 1 custom engineering unit
- Displays ambient sensor temperature in °C or °F
- Large, back-lit, 5½" digit display with 0.65" high digits and 20 segment bar graph
- Rugged stainless steel meets NEMA 4/IP65
- MIN/MAX recall
- Adjustable TARE zeros large system offsets
- User-configurable sample rate maximizes measurement performance and battery life
- User-configurable damping smooths readings from pulsating/plant air sources
- Auto Shut-off for extended battery life
- Low battery indicator
- CSA intrinsically safe, Class 1, Div. 2 Groups A, B, C & D; ATEX approval pending; CE approved
- Available with optional 24 V external power input
- Rubber boot standard on all stand-alone bottom mount gauges

### Description

The CPG 1000 Digital Pressure Test Gauge takes the concept of an analog Test Gauge, and brings it to a new level. The CPG 1000 combines the accuracy of digital technology with the simplicity of an analog gauge, and achieves performance, ease-of-use, and a feature set unmatched in the pressure measurement world.

Setup of the CPG 1000 is fast and straightforward, through a menu-driven display, with minimal text, and intuitive functions, that is simple enough to allow the gauge to be used anywhere in the world, without the need for multilingual displays. Ease-of-use performance, and features set the CPG 1000 Digital Pressure Gauge apart.

The CPG 1000 provides 0.05% of full scale readings of pressure in any one of eight (8) ranges. Readings may be displayed in any one of 18 standard engineering units, or



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in custom units you define, to eliminate tedious conversion calculations.

The 5½" digit, 0.65" high digital display and companion percent-of-range bar graph provide an easy to read display, even from a distance.

A number of features provide additional ease of use. The reading sample rate can be user-adjusted to match the type of measurement required. A power saving mode allows the CPG 1000 to enter a "sleep" mode, where the display is frozen between readings, maximizing battery life to 2,000 hours. A MIN/MAX function is provided which instantly recalls the minimum and maximum pressure reading that have been automatically stored in the CPG 1000. An auto power shutoff feature may be enabled for a preset time interval to extend battery life.

Password-protected field calibration of the CPG 1000 may be initiated through the keypad. An RS232 port allows pressure reading data to be extracted directly from the gauge for off-line analysis. (Requires RS232) In addition to a ZERO function that compensates for sensor drift, large residential system pressures can be nulled using the TARE adjustment. This adjustment, when combined with the ability to create custom

engineering units for display, allows the CPG 1000 to be used in a variety of liquid level and volume measurements, easily reading units of interest, such as gallons in a tank, directly.

Damping can be set to integrate readings to accommodate pulsating sources, such as plant air. An optional external 24 VDC power input is available for applications where the CPG 1000 will be permanently incorporated into a process line. A protective rubber boot is standard to help protect the CPG 1000 from damage when dropped.

The CPG 1000 is available in a self-contained calibration kit, including a hand pressure pump, and associated fittings. Black aluminum

#### **Input Pressure Ranges**

1 psi\* (70 mbar)  
15 psi (1 bar)  
30 psi (2 bar)  
100 psi (7 bar)  
300 psi (20 bar)  
500 psi (30 bar)  
1,000 psi (70 bar)  
2,000 psi (140 bar)  
3,000 psi (200 bar)  
5,000 psi (300 bar)  
10,000 psi (700 bar)  
15,000 psi (1000 bar)  
10" WC  
-15 to 15 psi\*  
-15 to 30 psi\*

#### **Accuracy**

Positive Pressure:  $\pm 0.05\%$  (all ranges except as noted)  
10" WC (25 mbar)  $\pm 0.1\%$  FS  
1.0 psi (70 mbar)  $\pm 0.1\%$  FS  
15,000 psi (1,000 bar)  $\pm 0.1\%$  FS  
Vacuum:  $\pm 0.25\%$  FS (500 psi gauge ranges and below)  
0.1% FS for 15/30 psi compound/vacuum versions

#### **Temperature Compensation**

0 °C to +50 °C (32 °F to +122 °F) to rated accuracy

#### **Standard Engineering Units**

psi, bar, kg/cm<sup>2</sup>, inH<sub>2</sub>O (4 °C, 20 °C or 60 °F), ft H<sub>2</sub>O (4 °C, 20 °C, or 60 °F), cmH<sub>2</sub>O (4 °C and 20 °C), mH<sub>2</sub>O (4 °C and 20 °C), kpa, mbar, inHg, mmHg, TORR

#### **Media Compatibility**

liquids and gases compatible with 316 SS;  
except for ranges marked \*

#### **Environmental**

Operating Temperature: -10 °C to +55 °C  
Storage: -20 °C to +70 °C (-4 °F to +158 °F)

#### **Mechanical**

Dimensions: 4.375" x 5.0" x 1.50"  
Input Port: 1/4" male NPT

#### **Display**

5 Digits, 0.65" (16.53 mm) height  
Bar Graph -- 0 to 100% in 20 segments

#### **Power**

Battery: three (3), size AA alkaline batteries  
Battery Life: 1,500 hours without backlight;  
2,000 hours at slow sample rate;  
battery life can be displayed on bar  
graph to indicate the amount of time left  
Low Battery Indicator: displayed icon near the end of  
battery life

Includes: manual, batteries



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