

# Ultra-Ruggedized Digital Pressure Gauges for Natural Gas Pressure Measurements

- ±0.25% Test Gauge Accuracy
- 316L Stainless Steel Sensor
- All Metal Housing
- FM Class I Div. 1 Intrinsically Safe
- Protective Coating on Circuit Boards
- Tool Box Tough
- Easy to Use, Setup, and Calibrate
- Long Term Stability and Reliability
- Extra-Long Recalibration Cycle
- Serviceable and Repairable

## CECOMP

by **ABSOLUTE PROCESS INSTRUMENTS**

[cecomp.com](http://cecomp.com)



3-1/2 Digit No Memory	Range	4-Digit, Min/Max Memory, 1 Button/Internal Buttons	Range	4-Digit, Min/Max Memory, 3-Button Keypad	Range	Specifications See <a href="http://cecomp.com/is">cecomp.com/is</a> for complete specifications
DPG2000BBL85INH2O	85.0 inH2O	DPG2000BBL85INH2O-D4	85.0 inH2O	DPG2000BBL85INH2O-D4-M2	85.0 inH2O	FM Approved Intrinsicly Safe Class I, Div. 1, Groups A, B, C, D
DPG2000BBL15PSIG	15.00 psig	DPG2000BBL15PSIG-D4	15.00 psig	DPG2000BBL15PSIG-D4-M2	15.00 psig	Display 3-1/2 or 4 digit LCD updated 3 reading/second
DPG2000BBL30PSIG	30.0 psig	DPG2000BBL30PSIG-D4	30.00 psig	DPG2000BBL30PSIG-D4-M2	30.00 psig	Backlight Keypress activated red LED
DPG2000BBL60PSIG	60.0 psig	DPG2000BBL60PSIG-D4	60.00 psig	DPG2000BBL60PSIG-D4-M2	60.00 psig	Accuracy ±0.25% of full scale, ±1 LSD, ±0.1% optional
DPG2000BBL100PSIG	100.0 psig	DPG2000BBL100PSIG-D4	100.0 psig	DPG2000BBL100PSIG-D4-M2	100.0 psig	Batteries Two 1.5 V AAA included
DPG2000BBL200PSIG	199.9 psig	DPG2000BBL200PSIG-D4	200.0 psig	DPG2000BBL200PSIG-D4-M2	200.0 psig	Battery Life Up to 1000 hours depending on back light usage
DPG2000BBL300PSIG	300 psig	DPG2000BBL300PSIG-D4	300.0 psig	DPG2000BBL300PSIG-D4-M2	300.0 psig	Auto Shutoff 5 minutes. D4: user configurable on/off to 8 hrs
DPG2000BBL500PSIG	500 psig	DPG2000BBL500PSIG-D4	500.0 psig	DPG2000BBL500PSIG-D4-M2	500.0 psig	D4 Controls Min/max memory, push button zero
DPG2000BBL1000PSIG	1000 psig	DPG2000BBL1000PSIG-D4	1000 psig	DPG2000BBL1000PSIG-D4-M2	1000 psig	D4 Setup Units, shutoff time, memory, calibration, pass code
DPG2000BBL2000PSIG	2000 psig	DPG2000BBL2000PSIG-D4	2000 psig	DPG2000BBL2000PSIG-D4-M2	2000 psig	Connection 1/4" NPT male fitting
		DPG2000BBL3000PSIG-D4	3000 psig	DPG2000BBL3000PSIG-D4-M2	3000 psig	Sensor 316L stainless steel
		DPG2000BBL5000PSIG-D4	5000 psig	DPG2000BBL5000PSIG-D4-M2	5000 psig	Operating Amb. -4 to 185°F (-20 to 85°C)

## Field Service

- Cases for Service Kits
- 2, 3 or 6 Gauge Versions
- Pelican® Brand Case
- Storage for Pete's Plugs® and Fittings
- High Visibility Orange
- Custom Heavy Duty Foam Interior
- Optional Heavy Duty Gauge Boot

Model	Service Kit Case	Interior Size
DPG-OK2	1 or 2 gauges	9.2" x 7.1" x 4.1"
DPG-OK3	1 to 3 gauges	11.8" x 8.8" x 5.2"
DPG-OK6	1 to 6 gauges	16.7" x 11.2" x 6.1"

Model	Protective Boot	Size
RB	Orange rubber boot	3.5" x 3" x 2"



Pelican—Reg TM Pelican Products, Inc.  
 Pete's Plug—Reg TM Peterson Equipment Co., Inc.  
 Pete's Plugs not included. See [petesplug.com](http://petesplug.com)



**CECOMP** by **ABSOLUTE PROCESS INSTRUMENTS**

1220 American Way Libertyville, IL 60048  
 800-942-0315

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# Cecomp Digital Pressure Gauge Applications



Application: **Accurately monitoring pressure in a gas distribution system**

Type Of company: Public Utility

Location: Washington

### Problem

Natural gas utilities require operators and technicians to check the gas pressures at the various “Stops” (regulator locations) along the local utility transmission line. Analog pressure gauges were used to check pressure, but often had accuracy errors due to mechanical shock, wear, and field conditions. Reading errors were also caused by using the gauges outside of their rated 2/3 accuracy band width.

Some gas utility managers advised that 3 different analog gauges yielded 3 significantly different pressure readings on the same line. Since gas is billed by volume and that volume is calculated from their temperature / pressure formula, the pressure needs to be accurately measured and recorded at each stop.

### Solution

A kit with three Cecomp DPG2000BBL series digital pressure gauge is the solution. The ranges required were 85 InH2O, 100 PSIG, and a 1000 PSIG. The Cecomp Digi Max gauges have  $\pm 0.25\%$  accuracy over the full pressure range and can handle the abuse because of its rugged design. These are supplied in a rugged Pelican brand case that can hold three gauge and Pete's Plug accessories.

Many utilities use a pressure testing system called a “Pete's Plug”. This uses rubber seals that are penetrated by a needle, much like a football inflator. This allow quick pressure checks without needing a shutoff valve. The Pete's Plug probe can be mounted to the 1/4" NPT fitting on the gauge.

## LDC—Local Distribution Companies



Supplemental storage  
LNG, propane



Stop #1 230 psig typical  
Citygate pressure reduction station  
100-150 psig typical  
Power generator plants



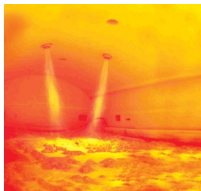
Stop #2  
30 psig typical up to 60 psig  
Metering & Regulator Station



Stop #3  
30 psig typical  
Sampling & Regulator Station



Stop #4  
30 psig typical  
Residential Transfer Station



Stop #5  
30 psig typical  
Industrial User Transfer Station



Images and pressures are representative and are not intended to reflect actual equipment or pressures used.



Stop #7  
.25 psig (7 inH2O)  
Residential service



Stop #6  
2 psig typical  
Residential Service Line



Application: **Test and check calibration of in-place analog gauges**

Type Of company: Natural Gas Pipeline Service

Location: Wisconsin

### Problem

The customer provides routine maintenance and modification of metering stations for natural gas pipeline distribution companies. The general goal of their program is to increase system reliability and lower system costs which provides tangible benefits to their customers. Part of the technician's routine maintenance is to perform a field test on the installed analog pressure gauge to ensure that the gauge is operating properly and reading correctly.

This requires the technician to have a “working standard” gauge. A “working standard” is a pressure gauge that is calibrated from a “primary standard” and is used to check and field calibrate other pressure gauges. The customer needs an accurate and reliable digital pressure gauge to use as the “working standard” for their technicians.

### Solution

The customer purchased an Ultra-Ruggedized DPG2000B5000PSIG-D4 gauge. This model gives the technician an accurate visual readout to check the reading and operation of the in-place analog gauge.

