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

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

<table>
<thead>
<tr>
<th>Model</th>
<th>Service Kit Case</th>
<th>Interior Size</th>
<th>Model</th>
<th>Protective Boot</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPG-OK2</td>
<td>1 or 2 gauges</td>
<td>9.2” x 7.1” x 4.1”</td>
<td>DPG-OK2</td>
<td>Orange rubber boot</td>
<td>3.5” x 3” x 2”</td>
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<tr>
<td>DPG-OK3</td>
<td>1 to 3 gauges</td>
<td>11.8” x 8.8” x 5.2”</td>
<td>DPG-OK3</td>
<td>Orange rubber boot</td>
<td>3.5” x 3” x 2”</td>
</tr>
<tr>
<td>DPG-OK6</td>
<td>1 to 6 gauges</td>
<td>16.7” x 11.2” x 6.1”</td>
<td>DPG-OK6</td>
<td>Orange rubber boot</td>
<td>3.5” x 3” x 2”</td>
</tr>
</tbody>
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Pelican®—Reg TM Pelican Products, Inc.
Pete’s Plug®—Reg TM Peterson Equipment Co., Inc.
Pete’s Plugs not included. See petesplug.com
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 ±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

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

Stop #6
2 psig typical
Residential Service Line

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

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 F16B5000PSIG gauge. They did not require an Intrinsically Safe gauge for this application. This model gives the technician an accurate visual readout to check the reading and operation of the in-place analog gauge.

See cecomp.com for latest product information. Call 800-942-0315 for questions or quotes.