**Electrical Specifications**

**Ranges and Resolution**

- **Vac:** Vacuum gauge, minus sign not used unless specified
- Contact factory for engineering units not listed

<table>
<thead>
<tr>
<th>Pressure Type</th>
<th>Range</th>
<th>Resolution</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00 psi</td>
<td>0.01 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
<tr>
<td>50.00 psi</td>
<td>0.05 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
<tr>
<td>100.0 psi</td>
<td>0.1 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
<tr>
<td>200.0 psi</td>
<td>0.2 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
<tr>
<td>300.0 psi</td>
<td>0.3 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
<tr>
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</tr>
<tr>
<td>500.0 psi</td>
<td>0.5 psi</td>
<td>±1.0%</td>
<td>PSI</td>
</tr>
</tbody>
</table>

**Accuracy**

- Linear: ±0.25% of full scale ±1 least significant digit
- Optional: HA: ±0.1% FS ±1LSID (most ranges)
- CD: Factory calibration data
- NC: NIST traceable test report and calibration data

**Display**

- 3 readings per second nominal display update rate
- 4% digit LCD, 0.5" H, 5 character 0.25" H alphanumeric lower display

**Controls & Functions**

- Front pushbutton turns gauge on or off and cycles through functions
- BL: Press pushbutton to activate 1 minute backlighting when gauge is on

**Function**

- **Pushbutton**: Press
- **Prompt/Release Button**: 1 sec
- **Result**: Gauge Range/Display Test Actual Pressure

**Battery Parameters**

- 2 AA alkaline, approx. 200 hours
- 150 to 1500 hrs depending on backlight usage

**Temperature Compensation**

- ±0.25% Test Gauge Accuracy
- 316 Stainless Steel Wetted Parts
- Capture Minimum and Maximum Readings
- Push Button Zero

**Mechanical Specifications**

**Size**

- **F16B**: 3.38" W x 2.88" H x 1.65" D housing
- **F16BN**: 3.5" W x 3.0" H x 2.0" D housing

**Weight**

- **Gauge**: 9 ounces (approx)
- **Shipping weight**: 1 pound (approx)

**Material & Color**

- **F16B**: Extruded aluminum case, light gray epoxy powder coated, black ABS/poly carbonate bezel (aluminum bezel optional), front and rear gaskets, black/gold label
- **F16BN**: Light gray ABS/poly carbonate NEMA 4X case, rear gasket, black/gold label

**Pressure/Vacuum Connection Size, Material, Media Compatibility**

- 1/4" NPT male, all wetted parts are 316 SS, compatible with most liquids and gases

**Overpressure**

- 4 times sensor pressure rating, or 10,000 psi, whichever is less

**Environmental**

- Storage Temperature: –40 to 200°F (–40 to 95°C)
- Operating Temperature: –4 to 185°F (–20 to 85°C)
- Compensated Temperature: 32 to 158°F (0 to 70°C)

**Pressure/Temp/Rel Pressure**

- RB Rubber Boot
- Not for NEMA 4X models

**Contact Factory for Engineering Units Not Listed**

- ±30.00 inHg
- ±15.00 psig
- 60.00 inHg abs
- 30.00 inHg vac
- 30.00 inHg abs
- 10.00 inHg
- 6.000 inHg
- 300.0 psig
- 200.0 psig
- 100.0 psig
- 100.0 psi abs
- 30.00 psig
- 15.00 psig
- 15.00 psig vac
- 5.000 psig
- 3.000 psig
- 5000 psig
- 3000 psig
- 1000 psig

**4 times sensor pressure rating, or 10,000 psi, whichever is less**

**Environmental**

- Storage Temperature: –40 to 200°F (–40 to 95°C)
- Operating Temperature: –4 to 185°F (–20 to 85°C)
- Compensated Temperature: 32 to 158°F (0 to 70°C)
INSTALLATION AND PRECAUTIONS
Install or remove gauge using wrench on hex fitting only. Do not attempt to tighten by turning housing or any other part of the gauge. Use fittings appropriate for the pressure range of the gauge. Do not apply vacuum to gauges designed for vacuum operation. Due to the hardness of 316 stainless steel, it is recommended that a thread sealant be used to ensure leak-free operation. NEVER insert objects into the gauge port or blow out with compressed air. Permanent damage not covered by warranty will result to the sensor.

POWER-UP
1. Press and hold the pushbutton for approximately 1 second.
2. The full-scale range is indicated and the display segments are tested.
3. The actual pressure and units are displayed.

Power-Up With Zero (Gauge reference models only)
1. Be sure the gauge port is exposed to normal atmospheric pressure and no pressure is applied. The zeroing function is only activated at each power-up and the stored zero correction is erased when the gauge is shut off.
2. Press and hold the pushbutton.
3. The full-scale range is indicated and the display segments are tested.
4. Continue to press the pushbutton until 0 0 0 is displayed and then release the button. This indicates that the gauge has been zeroed.
5. The actual pressure is displayed.

Attempting to zero the gauge with pressure greater than approximately 3% of full-scale applied will result in an error condition, and the display will alternately indicate E r r 0 and the actual measured pressure. The gauge must be powered down to reset the error condition.

Absolute reference gauges do not use the zero feature since they read atmospheric pressure under normal conditions.

NORMAL OPERATION
Following the start-up initialization, the display indicates the pressure reading updated approximately 3 times per second. The auto shutoff timer starts when the gauge is powered up or whenever the button is pushed, unless the gauge was ordered without an auto shutoff time (-ON option).

If excessive vacuum is applied to a pressure-only gauge, the display will indicate E r r until the vacuum is released. Applying vacuum to a gauge designed for pressure may damage the pressure sensor. If excessive pressure is applied (112.5% over range), an out-of-range indication of 1 -- -- or 1 -- -- -- will be displayed depending on model.

MINIMUM AND MAXIMUM READINGS
Minimum and maximum readings are continuously stored and updated whenever gauge is on. The stored readings can be manually cleared if desired. The HI and LO memory is also cleared whenever the gauge is off.

Press and hold the pushbutton for about 1 second until HI is displayed. The maximum stored value is displayed.

After HI is displayed, press and hold the pushbutton again for about 1 second until LO is displayed. The minimum stored value is displayed.

After LO is displayed, press and hold the pushbutton again for about 1 second until RP (Applied Pressure) is displayed. The HI and LO memory is not erased and the gauge returns to normal operation with the display indicating the current pressure.

Press and continue to hold the pushbutton until the display indicates HI/LO (about 3 seconds total) and then release the pushbutton. Both HI and LO values are cleared and the gauge returns to the normal mode and displays the current pressure.

DISPLAY BACKLIGHTING (BBL MODELS ONLY)
Display backlighting can be turned on by momentarily pressing the button whenever the gauge is on. The backlighting will turn on for one minute and then automatically shut off. This also restarts the auto shutoff timer. The display backlighting will not be apparent under bright lighting conditions.

SHUTDOWN
To shut off the gauge manually at any time, press and hold the pushbutton until the display indicates OFF (about 5 seconds) and then release.

For gauges with auto shutoff, the display indicates OFF five seconds prior to auto shutoff. The pushbutton can be pressed to keep the gauge on. The auto shutoff and backlight (if equipped) timers are reset whenever the pushbutton is pressed and released.

If the gauge was ordered without auto shutoff (-ON option) it will stay on until manually shut off or until the batteries are depleted. Turn gauge off when not in use to conserve battery life.

CALIBRATION
F16-series gauges use internal controls for calibration. The calibration instructions are available at cecomp.com. Gauges can be recalibrated by any metrology lab with pressure calibration equipment at least 4 times more accurate than the gauge. Gauges may also be returned for factory recalibration and refurbishment. NIST traceability is available.

BATTERY REPLACEMENT
A low battery indication will be shown in the upper left-hand corner of the display when the battery voltage falls sufficiently. The battery should be replaced soon after the indicator comes on or unreliable readings may result.

1. Remove the 6 Phillips head screws on the back of the unit.
2. Remove batteries by lifting up the positive end of the battery (opposite the spring) taking care not to bend the battery holder spring.
3. Discard old batteries properly, DO NOT discard into fire, sources of extreme heat, or in any other hazardous manner.
4. Always replace both batteries at the same time with high quality alkaline batteries. Install batteries with correct orientation. The negative (flat) end of each battery should be inserted first facing the battery holder spring.
5. Replace the back cover, including the rubber sealing gasket.

DIMENSIONS

PART NUMBERS

Model range units reference - shutoff

F16B, F16BN, F16BBL, F16BNBL Instructions

About DigiMax® F16B, F16BN, F16BBL, F16BNBL

DigiMax® F16B, F16BN, F16BBL, F16BNBL, F16B100PSIG-10

F16, Battery powered, 100.0 psig, 10 minute shutoff

Display backlighting can be turned on by momentarily pressing the button whenever the gauge is on. This also restarts the auto shutoff timer. The display backlighting will not be apparent under bright lighting conditions.

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