Absolute Pressure Gauges
Compact Design
With Capsule Element • Type 516.11
With Bourdon Tube • Type 516.12

Application
Measurement of absolute pressure without the effect of barometric pressure variation. Suitable for all clean and dry gaseous media that will not attack copper alloy and aluminum parts.

Size
3" (80 mm)

Accuracy
± 1.5% of span

Ranges
Type 516.11: 10 "H2O to 400 "H2O Absolute
Type 516.12: 30 PSI to 200 PSI Absolute

Working Range
Steady: full scale value
Fluctuating: 0.9 x full scale value

Overpressure Safety
Type 516.11: 14.7 PSI absolute (atmospheric pressure) with all scale ranges
Type 516.12: full scale value

Operating Temperature
Ambient: -4°F (-20°C) to 140°F (60°C)
Media: max. + 160°F (+70°C)

Temperature error
Additional error when temperature changes from reference temperature of 68°F (20°C) ± 0.4% for every 18°F (10°C) rising or falling. Percentage of span.

Weather Protection
Weather proof (NEMA 4 / IP 66)

Standard Features

Connection (exposed to pressure medium)
Lower mount (LM)
Center back mount (CBM)
1/8" NPT female

Pressure Element (exposed to pressure medium)
Type 516.11: Copper alloy capsule
Type 516.12: Stainless steel Bourdon tube

Movement (exposed to pressure medium)
Copper alloy

Dial (exposed to pressure medium)
White aluminum with black lettering

Pointer
Black aluminum

Zero Adjustment
Adjustment made in back of case (Type 516.11)

Case (exposed to pressure medium)
Black aluminum with black aluminum ring. NOTE: Case under pressure.

Window
Flat instrument glass

Gaskets (exposed to pressure medium)
NBR (Buna rubber)

Gauge Mounting
Mounts to sturdy male piping. Male threaded connection, front flange, rear flange, or u-clamp mounting are optional.

Optional Extras
Other pressure connection
U-clamp panel mounting
Front flange
Rear flange
Male threaded connection

Operating Principle
• The aluminum case holds the system pressure. The capsule element or Bourdon tube is permanently sealed with the zero reference pressure.
• The specially shaped capsule fully collapses to provide overpressure safety regardless of the scale range.
• Any pressure applied is compared to the sealed reference chamber (capsule element or Bourdon tube) to get an accurate measurement of absolute pressure.
Dimensions:

Standard Version

<table>
<thead>
<tr>
<th>Lower Mount (LM)</th>
<th>Center Back Mount (CBM)</th>
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<tbody>
<tr>
<td>2.76&quot;</td>
<td>2.60&quot;</td>
</tr>
<tr>
<td>1.89&quot;</td>
<td>2.89&quot;</td>
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<tr>
<td>0.39&quot;</td>
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<tr>
<td>1/8&quot; NPT</td>
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Optional Extras

Front Flange

| 0.19"         | 2.76"                  |
| 3.74"         | 0.24"                  |
| 4.33"         | 0.079"                 |

Rear Flange

| 0.19"         | 2.76"                  |
| 3.74"         | 0.24"                  |
| 4.33"         | 1/8" NPT               |

Panel Cutout Ø 2.96"

U-Clamp (UC)

<table>
<thead>
<tr>
<th>Weight</th>
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<tbody>
<tr>
<td>Type 516.11</td>
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<tr>
<td>Type 516.12</td>
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<tr>
<td>1.1 lb (0.48 kg)</td>
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<tr>
<td>1.2 lb (0.55 kg)</td>
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THE MEASURE OF Total Performance™