WET/WET DIFFERENTIAL PRESSURE TRANSmitters

0.5% Accuracy, NEMA 4X (IP66) Enclosure

The Series 629C Wet/Wet Differential Pressure Transmitters monitor differential pressure of air and compatible gases and liquids with 0.5% accuracy. The design employs dual pressure sensors converting pressure changes into a standard 4-20 mA output signal or field selectable voltage. Small internal volume and minimal moving parts result in exceptional response and reliability. The terminal block, as well as a zero adjustment button, are easily accessed under the top cover. The Series 629C Differential Pressure Transmitter is designed to meet NEMA 4X (IP66) construction.

FEATURES/BENEFITS

• Powered by either DC or AC - take advantage of most readily available power source reducing installation costs
• Optional LCD does not need a separate power supply - lowers installed cost
• Selectable voltage range - provides flexible choice for changing design or inputs for process/HVAC controllers being used to monitor and control
• Push-button zero (versus trim pot) - more simple zeroing provides easy install and calibration reducing installation time and possibility of operator error
• Optional LCD indicator provides local status to identify operational condition
• Remote sensor option reduces installation labor and material

APPLICATIONS

• Flow elements
• Heat exchangers
• Filters
• Pumps

SPECIFICATIONS


Accuracy: ±0.5% FS (includes linearity, hysteresis & repeatability).

Stability: ±1% FS/year.

Compensated Temperature Limits: 0 to 175°F (-18 to 79°C).

Pressure Limits: See Table 1.

Current Consumption: 2-wire: 10-35 mA; 3-wire: 13-35 VDC or isolated 16-33 VAC (reverse polarity protected).

Output Signal: 2-wire: 4-20 mA; 3-wire: Field selectable 0-5, 1-5, 0-10, 2-10 VDC.

Zero and Units: Push-buttons inside conduit enclosure.

Response Time: 400 msec.

Loop Resistance: Current output: 0-50 psiga (max). Rmax = 50(Vps-10); Voltage output: Minimum load resistance = 5 kΩ.

Current Consumption: 28 mA (max).

Electrical Connections: Removable terminal block: 1/2 female NPT conduit.

Process Connections: 1/4 female or male NPT.

Display: Optional 4-1/2 digit LCD field attachable display.

Enclosure Rating: Designed to meet NEMA 4X.

Mounting Orientation: Not position sensitive.

Weight: 629C-XX-CH, 10.1 oz (286 g); 629C-XX-R2-P1-E5-XX: 2.3 lbs (1.04 kg); 629C-XX-R6-P1-E5-XX: 4.55 lbs (2.06 kg).

Agency Approvals: CE.

ACCESSORIES

Cable gland with 1/2 NPT male
12 SS flex hose
Field-upgradeable LCD
Mini SS 3-valve block manifold

USA: California Proposition 65
\[\text{WARNING: Cancer and Reproductive Harm}\]
www.P65Warnings.ca.gov

MODEL CHART

Example 629C-01-CH-P1-E1-S1-3V 629C-01-CH-P1-E1-S1-3V

Series 629C

Differential Pressure Transmitter

Range

<table>
<thead>
<tr>
<th>Example</th>
<th>Series</th>
<th>Range</th>
<th>Working Pressure</th>
<th>Over Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>629C</td>
<td>0 to 5 psid</td>
<td>10 psi</td>
<td>50 psi</td>
</tr>
<tr>
<td>02</td>
<td>629C</td>
<td>0 to 10 psid</td>
<td>20 psi</td>
<td>50 psi</td>
</tr>
<tr>
<td>03</td>
<td>629C</td>
<td>0 to 25 psid</td>
<td>50 psi</td>
<td>120 psi</td>
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<tr>
<td>04</td>
<td>629C</td>
<td>0 to 50 psid</td>
<td>100 psi</td>
<td>250 psi</td>
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<tr>
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<td>629C</td>
<td>0 to 100 psid</td>
<td>200 psi</td>
<td>500 psi</td>
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<tr>
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<td>629C</td>
<td>0 to 150 psid</td>
<td>300 psi</td>
<td>750 psi</td>
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<tr>
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<td>629C</td>
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<td>400 psi</td>
<td>1000 psi</td>
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<tr>
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<td>629C</td>
<td>0 to 300 psid</td>
<td>600 psi</td>
<td>1200 psi</td>
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<tr>
<td>09</td>
<td>629C</td>
<td>0 to 500 psid</td>
<td>1000 psi</td>
<td>2000 psi</td>
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<tr>
<td>10</td>
<td>629C</td>
<td>0 to 0.5 bar differential</td>
<td>1 bar</td>
<td>3 bar</td>
</tr>
<tr>
<td>11</td>
<td>629C</td>
<td>0 to 1 bar differential</td>
<td>2 bar</td>
<td>8 bar</td>
</tr>
<tr>
<td>12</td>
<td>629C</td>
<td>0 to 2 bar differential</td>
<td>4 bar</td>
<td>8 bar</td>
</tr>
<tr>
<td>13</td>
<td>629C</td>
<td>0 to 4 bar differential</td>
<td>8 bar</td>
<td>16 bar</td>
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<tr>
<td>14</td>
<td>629C</td>
<td>0 to 8 bar differential</td>
<td>16 bar</td>
<td>32 bar</td>
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<tr>
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<td>629C</td>
<td>0 to 16 bar differential</td>
<td>32 bar</td>
<td>64 bar</td>
</tr>
<tr>
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<td>629C</td>
<td>0 to 32 bar differential</td>
<td>64 bar</td>
<td>128 bar</td>
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<td>629C</td>
<td>0 to 64 bar differential</td>
<td>128 bar</td>
<td>256 bar</td>
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<td>512 bar</td>
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<tr>
<td>19</td>
<td>629C</td>
<td>0 to 256 bar differential</td>
<td>512 bar</td>
<td>1024 bar</td>
</tr>
</tbody>
</table>

*Pressures exceeding the working pressure limit may cause a calibration shift of up to ±3% of full-scale.

Note: Over pressure of all models with 3-way valve is 100 psi.

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