**Explosion-Proof Differential Pressure Switches**

Series H3

**Differential Pressure Switches**

<table>
<thead>
<tr>
<th>Model</th>
<th>UL</th>
<th>CSA</th>
<th>Directive 94/9/EC ATEX Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3 – _ _ C</td>
<td>—</td>
<td>—</td>
<td>[CE] 0344 II 2 G Ex d IIB 20°C ≤ T ≤ 75°C T6</td>
</tr>
<tr>
<td>H3 – _ _ L</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>[CE] 0344 II 2 G Ex d IIB 20°C ≤ T ≤ 75°C T6</td>
</tr>
<tr>
<td>H3 – _ _ T</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>—</td>
</tr>
<tr>
<td>H3 – _ _ C-DRAIN</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>—</td>
</tr>
<tr>
<td>H3 – _ _ L-DRAIN</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>CI, I, Gr,E, C &amp; D</td>
<td>—</td>
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</tbody>
</table>

**Specifications**

**Wetted Materials:** See pressure chamber and diaphragm material in model chart.

**Pressure Limit:** 1500 psig (103 bar).

**Temperature Limit:** -4 to 220°F (-20 to 90°C).

**Enclosure Rating:** Standard meets NEMA 4X (IP56), drain option meets NEMA 3 (IP54). For hazardous use see the hazardous location ratings chart.

**Switch Type:** SPDT or DPDT snap switch.

**Electrical Rating:** 5A @ 125/250 VAC, 30 VDC.

**Construction:** H3 Series designator; weatherproof and explosion-proof.

**Example**

<table>
<thead>
<tr>
<th>H3</th>
<th>S</th>
<th>2</th>
<th>S</th>
<th>C</th>
<th>MV</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3S-2SC-MV Differential Pressure Control; 316 SS pressure chamber and Fluoroelastomer diaphragm; weatherproof and ATEX; SPDT snap action switch with gold contacts; fixed deadband, automatic reset; adjustable range 0.5-15 psid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Pressure Chamber & Diaphragm Material (Wetted)**

<table>
<thead>
<tr>
<th>Construction</th>
<th>Pressure Chamber &amp; Diaphragm Material</th>
<th>Hazardous Location Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3</td>
<td>Aluminum chamber with Nitrile diaphragm 316 SS chamber with Fluoroelastomer diaphragm</td>
<td></td>
</tr>
</tbody>
</table>

**Adjustable Operating Range**

<table>
<thead>
<tr>
<th>Circuit (Switch) Options</th>
<th>Adjustable range 10-180 in. w.c. (2.48-4.57 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPDT snap action switch rated 5A @ 125/250 VAC, 30 VDC</td>
<td></td>
</tr>
</tbody>
</table>

**Electrical Connections**

<table>
<thead>
<tr>
<th>Electrical Connection Options</th>
<th>SPDT snap action switch rated 5A @ 125/250 VAC, 30 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL, CSA approved internal terminal block</td>
<td></td>
</tr>
<tr>
<td>ATEX approved internal terminal block</td>
<td></td>
</tr>
</tbody>
</table>

**Hazardous Location Ratings**

- ATEX see ratings chart.
- UL, CSA, CE, and ATEX see ratings chart.

**Note:** Shown without housing and cover.

**Internal terminal blocks for conductors up to 18 gauge are optional.**

**Optional NEMA 3 (IP 54) housing includes explosion-proof drain. Standard NEMA 4X (IP 56) version is without drain.**

**External Ground Connection Standard — Internal ground connection also standard — use either one.**

**Electrical Connections:**

- Conduit Connection: 3/4” female NPT.
- Process Connection: 1/8” female NPT.
- Mounting Orientation: Vertical.

**Set Point Adjustment:** Internal screw.

**Weight:** 4 lb, 2 oz (2 kg).

**Deadband:** Approximately 5% of range.

**Agency Approvals:** UL, CSA, CE, and ATEX see ratings chart.

**Options**

- Conduit Connection: 3/4 NPT
- Process Connection: 1/8 NPT
- Connection (Switch): SPDT or DPDT
- Electrical Connections: ATEX, UL, CSA, CE
- Electrical Rating: 5A @ 125/250 VAC, 30 VDC
- Hazmat Location: ATEX, UL, CSA, CE
- Wiring Protection: Explosion-proof, weatherproof

**Applications:**

- Suitable for industrial use, providing sensitivity to differential pressures as low as 10 inches of water (254 mm w.c.), yet handles total pressure of 1500 psi (103 bar).
- Suitable for various applications, including water and water-based fluids or harsher environments.
- Special overtravel feature prevents overtightening of range adjust screw, allowing effective area to further reduce friction.
- Diaphragm is allowed to "seat" allowing spring to act directly on diaphragm plate.
- Rolling diaphragm design maintains constant working pressures.
- Friction is minimized and repeatability increased by allowing range adjust screw.
- Adjustable range of 10-200 psid.
- Adjustable range 5-70 psid.
- Adjustable range 0.5-15 psid.
- Adjustable range 10-180 in. w.c.
- Adjustable range 10-200 psid.
- Adjustable range 5-70 psid.
- Adjustable range 0.5-15 psid.
- Adjustable range 10-180 in. w.c.
- Adjustable range 10-200 psid.
- Adjustable range 5-70 psid.
- Adjustable range 0.5-15 psid.

**Agency Approvals:**

- UL, CSA, CE, and ATEX

**Hazardous Location Ratings:**

- ATEX see ratings chart.