Level

Leak proof all welded heavy duty carbon steel bodies coupled with snap action or mercury switches provide reliable, long term service for compatible liquids. The use of an external magnet reduces the possibility of magnetic particle build-up inside the armature tube and subsequent loss of operation as may occur with the internal magnet repulsion design. A variety of snap action or mercury switches in SPST, SPDT, DPDT or DPST configurations will satisfy most electrical requirements. These switch assemblies are contained in NEMA-1 general purpose, NEMA-4X weatherproof, NEMA-7-9 groups B, C, D, E, F, G, explosion-proof or explosion-proof – vapor proof enclosures.

APPLICATONs
Refineries, chemical plants, power generating stations, water treatment plants, mixing systems, scrubbers, accumulators, condensate recovery, industrial tanks and vessels.

SPEcIFICATIONS
C1-40: Minimum specific gravity 0.40. Process pressure 1250 psi (86 bar) at 100°F (38°C) to 500°F (260°C).

Temperature Limits: Ambient Temperature: 212°F (100°C); Process Temperature: up to 500°F (260°C).

Switch Type: Snap action or mercury. See charts A and B.

Electrical Rating: See charts A and B.

Wiring Connections: G, WT or E enclosure, terminal block. EV enclosure, 18” (460 mm) leads.

Process Connection: Combination 1” NPT/socket weld hubs or flanges. See model chart.


Wetted Parts: C1 construction. Chamber, carbon steel. Trim, 303SS, 304SS, 316SS and 430SS.

Weight: 1251, 40 lb (18 kg); 1253, 50 lb (22.7 kg); 1254, 57 lb (25.8 kg).

Suggested Specifications
Liquid level control shall be 1251 (1253) (1254) Series with 1” combination NPT/socket weld hub (flanged) process connections. Chamber shall be welded and suitable for operation at 1250 psig (86 bar) and 500°F (260°C) with a minimum specific gravity of 0.40. Circuit shall be hermetically sealed snap action (mercury) switch (SPST) (SPDT) (DPDT). Enclosure shall be general purpose, (explosion-proof) (explosion-proof – vapor proof). Switch mechanism shall be gravity return and shall be activated by a stainless steel float.
### Model Chart – Series 1251

**Example**
- **1251 WT 7810 C1 40**

**Enclosure**
- **48XX XX**
  - Single stage. Mercury switch. See Chart A.
  - Two stage. Mercury switch. See Chart A.
  - Single stage. Snap switch. See Chart B.
  - Two stage. Snap switch. See Chart B.
  - Hermetically sealed snap switch. See Chart B.
  - Single stage. High capacity DC snap switch. Use heat fins (HF) if process temperature exceeds 350°F (177°C). Do not exceed 450°F (232°C). See Chart B.
  - Two stage. High capacity DC snap switch. Use heat fins (HF) if process temperature exceeds 350°F (177°C). Do not exceed 450°F (232°C). See Chart B.

**Circuits**
- **48XX XX**
  - Carbon steel body. Minimum specific gravity 0.40. Side/bottom process connections. Combination 1” NPT/socket weld hub. Pressure rating 1250 psig (86 bar) at 100°F (38°C) to 500°F (260°C).

**Welded Chamber Construction Combination 1” NPT/Socket Weld Hubs**
- **1251 C1 40**
  - 1” 150# flanges side/bottom process connection. Pressure rating 275 psi (19 bar) at 100°F (38°C), 150 psi (10 bar) at 500°F (260°C). Minimum specific gravity 0.40.
  - 1” 300# flanges side/bottom process connection. Pressure rating 720 psi (50 bar) at 100°F (38°C), 625 psi (43 bar) at 500°F (260°C). Minimum specific gravity 0.40.
  - 1” 600# flanges side/bottom process connection. Pressure rating 1250 psi (86 bar) at 100°F (38°C), 1250 psi (86 bar) at 500°F (260°C). Minimum specific gravity 0.40.
  - 1” 150# flanges side/side process connection. Pressure rating 275 PSI (19 bar) at 100°F (38°C), 150 psi (10 bar) at 500°F (260°C). Minimum specific gravity 0.40.
  - 1” 300# flanges side/side process connection. Pressure rating 720 psi (50 bar) at 100°F (38°C), 625 psi (43 bar) at 500°F (260°C). Minimum specific gravity 0.40.
  - 1” 600# flanges side/side process connection. Pressure rating 1250 psi (86 bar) at 100°F (38°C), 1250 psi (86 bar) at 500°F (260°C). Minimum specific gravity 0.40.

**Options**
- **C216 12**
  - 316SS chamber and trim. 430SS armature.
  - Breather and drain for E type enclosure. Recommended for high humidity or outdoor service.

### Charts A & B - Electrical Circuits and Ratings

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Switch Action</th>
<th>Electrical Ratings in Amps</th>
<th>Ordering Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chart A</strong></td>
<td>Mercury Contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP-ST</td>
<td>Open on level FALL</td>
<td>120V: 10, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>SP-ST</td>
<td>Open on level RISE</td>
<td>120V: 10, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>SP-DT</td>
<td>One Switch</td>
<td>120V: 4, 240V: 2, 440V: 1†</td>
<td></td>
</tr>
<tr>
<td>DP-ST</td>
<td>Two switches E.I.* Open on level FALL</td>
<td>120V: 10, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>DP-ST</td>
<td>Two switches E.I.* Open on level RISE</td>
<td>120V: 10, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td><strong>Chart B</strong></td>
<td>Snap Action Contacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP-DT</td>
<td>One switch</td>
<td>120V: 12, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>DP-DT</td>
<td>Two SP-DT switches</td>
<td>120V: 12, 240V: 5, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>SP-DT</td>
<td>One hermetically sealed switch</td>
<td>120V: 5, 240V: 5, 440V: 5**</td>
<td></td>
</tr>
<tr>
<td>DP-DT</td>
<td>Two hermetically sealed SP-DT switches</td>
<td>120V: 5, 240V: 5, 440V: 5**</td>
<td></td>
</tr>
<tr>
<td>SP-DT</td>
<td>One SP-DT switch</td>
<td>120V: 10, 240V: 3, 440V: 3†</td>
<td></td>
</tr>
<tr>
<td>DP-DT</td>
<td>Two SP-DT switches</td>
<td>120V: 10, 240V: 3, 440V: 3†</td>
<td></td>
</tr>
</tbody>
</table>

*Electrically Independent
†Available on special order. Change 1st digit in Ordering Code from 4 to 5 or 7 to 8
‡10 Amp inductive (Polarized) at 125 VDC
i.e. -4820 becomes -5820, -7810 becomes -8810, etc.
**Resistive

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