**MODEL Q-16**

**DATA SHEET**

**THE Q-16. MAXIMUM RELIABILITY, MINIMUM COST.**

The Q-16 is the newest addition to Harwil’s heavy-duty line of flow switches. The switch is used to signal, start, or stop electronically operated equipment when flow or no-flow conditions occur. The Q-16 benefits from 40 years of flow switch development experience for every conceivable application.

Harwil’s patented elastomeric sealing system is superior to the metal bellows that are subject to metal fatigue and corrosion. This seal system has been field-proven for over a decade.

The Q-16 can be used in pipes 1 inch and larger, with set points as low as 4 GPM (3.8 LPM) to over 500 GPM (1,893 LPM) in larger pipe sizes. The Q-16 uses a 15 amp SPDT micro switch that can control a ½ horsepower motor.

**MULTIPLE QUICK-CHANGE PADDLES**

**PATENTED EPDM SEAL, SUPERIOR TO METAL BELLows**

**INDUSTRY-LEADING 3 YEAR WARRANTY**

**FIELD ADJUSTABLE SET POINTS**

**FIELD ADJUSTABLE PADDLES**

**DIRECT REPLACEMENT FOR MOST PADDLE-TYPE FLOW SWITCHES**

**BEST FLOW SENSITIVITY AMONG PADDLE-TYPE FLOW SWITCHES**

**HIGH PRESSURE (200 PSI) AND TEMPERATURE (250˚F)**

**STAINLESS STEEL PADDLES AND SHAFT**

**NEMA 4 ENCLOSURE**

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**VITAL STATS.**

<table>
<thead>
<tr>
<th>Process Connection</th>
<th>1” NPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Temp (°F / °C)</td>
<td>32˚–250°F (0˚–121˚C)</td>
</tr>
<tr>
<td>Pressure</td>
<td>200 psi</td>
</tr>
<tr>
<td>Enclosure</td>
<td>NEMA 4</td>
</tr>
<tr>
<td>Conduit Opening</td>
<td>½” Conduit</td>
</tr>
<tr>
<td>Pipe Size</td>
<td>1”–6”</td>
</tr>
<tr>
<td>Warranty</td>
<td>3 year</td>
</tr>
</tbody>
</table>

**TYPICAL USES.**

The Q-16 was designed for any fluid that is not corrosive to brass, stainless steel, or EPDM. Examples include:

- Cooling Tower Water
- Glycol Solutions
- Irrigation
- Process Water
- Wastewater
- Other Non-hazardous fluids

A low-voltage, low-current model is available for microprocessor or control signal applications.

**INDUSTRY IDEAS**

Typical industries include:

- **BOILERS** - Verify critical flow in tube-boilers or boiler feeds.
- **CHILLERS** - Protect coils from freezing at low flow.
- **WATER TREATMENT** - Verify flow for chemical feed, UV, ozone
- **IRRIGATION** - Protect pumps and verify flow for fertilizer injection.

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**THE “Q” STANDS FOR VOLUMETRIC FLOW RATE**
MODEL Q-16
DATA SHEET (PAGE 2)

FLOW RANGE. Water calibrated at 70°F (21°C)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1”</td>
<td>ON: 4, OFF: 2</td>
<td>ON: 8</td>
<td>OFF: 7</td>
</tr>
<tr>
<td>1½”</td>
<td>ON: 7, OFF: 5</td>
<td>ON: 13</td>
<td>OFF: 11</td>
</tr>
<tr>
<td>2”</td>
<td>ON: 12, OFF: 7</td>
<td>ON: 27</td>
<td>OFF: 26</td>
</tr>
<tr>
<td>2½”</td>
<td>ON: 18, OFF: 12</td>
<td>ON: 35</td>
<td>OFF: 32</td>
</tr>
<tr>
<td>3”</td>
<td>ON: 27, OFF: 19</td>
<td>ON: 52</td>
<td>OFF: 49</td>
</tr>
<tr>
<td>4”</td>
<td>ON: 63, OFF: 50</td>
<td>ON: 123</td>
<td>OFF: 120</td>
</tr>
<tr>
<td>5”</td>
<td>ON: 125, OFF: 100</td>
<td>ON: 238</td>
<td>OFF: 232</td>
</tr>
<tr>
<td>6”</td>
<td>ON: 190, OFF: 158</td>
<td>ON: 350</td>
<td>OFF: 338</td>
</tr>
</tbody>
</table>

Consult the factory for larger pipes and additional switch points.

INSTALLATION DIMENSIONS

THE “Q” STANDS FOR VOLUMETRIC FLOW RATE

ELECTRICAL SWITCH CHARACTERISTICS

SINGLE-POLE, DOUBLE-THROW (SPDT)
15A, 1/2 HP @ 125/250 VAC
1/2A @ 125 VDC, 1/4A @ 250 VDC

DRY CIRCUIT OPTION
Switch can interface with microprocessor based controllers and related computer circuits.

WETTED MATERIALS
Body: Brass
Shaft: 304 Stainless
Paddles: 316 Stainless
Seal: EPDM

THE “Q” STANDS FOR VOLUMETRIC FLOW RATE