ATEX Approved Photohelic® Switch/Gages with 24 VDC Power

3000MR or 3000MRS Series in Flame-Proof ATEX Enclosures

Using solid state technology, the Series AT23000MR and AT23000MRS ATEX Approved Photohelic® Switch/Gages combine the functions of a precise, highly repeatable differential pressure switch with a large easy-to-read analog pressure gage. Gage reading is unaffected by switch operation and will indicate accurately even if power is interrupted. AT23000MR series employ versatile electromechanical relays with low amperage ratings—ideal for dry circuits. For applications requiring high cycle rates, choose AT23000MRS models with SPST (NO) solid state relays. Easy to adjust set point indicators are controlled by knobs located on the gage face (accessible opening case after de-energizing instrument). All models provide both low and high limit control. Compatible with air and other non-combustible, non-corrosive gases, they can be used in systems with pressures to 25 psig (1.72 bar). Flame-proof ATEX enclosures are available with glass window which allows viewing of set point needles and process pressure.

Important notes for installation:
- Cables must be fitted through 1/2” NPT cable gland or ATEX conduit (not supplied with instrument).
- Make sure after cabling to close tight cover and cable gland, in order to keep IP66 for viewing of set point needles and process pressure.
- Open cover only after de-energizing instrument.
- Attention: Check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.

### Range Chart

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>3000-00</td>
<td>0 to 0.25</td>
<td>0.005</td>
<td>3000-60 Pa</td>
<td>0 to 60</td>
<td>2.0</td>
</tr>
<tr>
<td>3000-05</td>
<td>0 to 0.5</td>
<td>0.1</td>
<td>3000-125 Pa</td>
<td>0 to 125</td>
<td>5.0</td>
</tr>
<tr>
<td>3001</td>
<td>0 to 1.0</td>
<td>0.2</td>
<td>3000-250 Pa</td>
<td>0 to 250</td>
<td>5.0</td>
</tr>
<tr>
<td>3002-00</td>
<td>0 to 2.0</td>
<td>0.5</td>
<td>3000-500 Pa</td>
<td>0 to 500</td>
<td>10.0</td>
</tr>
</tbody>
</table>

### Switch Specifications

- **Service**: Air and non-combustible, compatible gases.
- **Wetted Materials**: Consult factory.
- **Housing Material**: Aluminum.
- **Finishing**: Textured epoxy coat RAL7036.
- **Accuracy**: ±2% of FS at 70°F (21.1°C), ±3% on -0, -60 Pa and ±4% on -00 models.
- **Pressure Limits**: -20 in Hg to 25 psig (-0.677 bar to 1.72 bar), MP option; 35 psig (2.41 bar), HP option; 80 psig (5.52 bar).
- **Temperature Limits**: 20 to 120°F. (-6.67 to 48.9°C). Option LT low temperature to -20°F (28.8°C). Case: -58 to 140°F (-50 to 60°C). (Note: Product temperature limits differ from case).
- **Power Requirements**: 24 VDC, regulated ±10%.
- **Electrical Wiring**: Screw terminals.
- **Mounting Orientation**: Diaphragm in vertical position.
- **Enclosure Rating**: IP66, IP65 with option OPV, overpressure relief valve.

### Process Connections
- 1/8” NPT female brass (SS optional). In presence of acetylene it is necessary to use SS.
- **Electrical Connections**: Two 1/2” NPT female. Cable gland not included.

### Switch Specifications (3000MR)

- **Switch Type**: Each setpoint has 1 Form C relay (SPDT).
- **Relay Contacts**: (resistive load) 1 Form C rated 1.0 A @ 30 VDC, 0.3 A @ 110 VDC or 0.5 A @ 125 VAC. Gold over clad silver - suitable for dry circuits.

### Switch Specifications (3000MRS)

- **Switch Type**: Each setpoint has a solid state relay.
- **Switching Voltage**: 20 to 280 VAC (47 to 63 Hz).
- **Switching Current**: 1.0 amp (AC) max., 0.01 mA (AC) min., (2) SPST NO.