Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. © 2016 Norgren, Inc.

Pneumatic electronic pressure switch

- Port size: 1/8 NPT, G 1/8
- System pressure (unit bar, psi, Mpa, kgf/cm², mmHg, lnHg or mmH₂O) selectable
- RoHS compliant

High accuracy and resolution
- Switching status indicated by LED
- Output: 2 x PNP
- IP65

Technical features

**Medium:**
For filtered, lubricated or non lubricated compressed air, neutral and incombustible gases
- Pressure range: -14.5 to 145 psi (-1 to 10 bar)
- -14.5 to 14.5 psi (-1 to 1 bar)
**Display:**
3 1/2 digit LED
- **Mounting position:** Optional

Repeatability (switch output):
≤ ±0.2% of full scale ±1 digit - without temperature sensitivity
**Response time:**
±2.5 ms
- **Shock proof:**
100g (980 m/s²), xyz
- **Vibration proof:**
88g, 10 - 55 Hz, xyz

**Degree of protection acc. to DIN 40050:**
- IP65 (with mounted dust proof protector)
- **Weight:**
3 oz. (83g)
- **Temperature sensitivity:**
≤ 2% of full scale (FS) of detected pressure 77°F (25°C)
- **Ambient/Media temperature:**
32°F to 122°F (0°C to 50°C)

Storage temperature:
-4°F to 140°F (-20°C to 60°C)
- No condensation or freezing
- Air supply must be dry enough to avoid ice formation at temperature below + 35°F (+2°C)

**Materials:**
Body: PC

Electrical parameters

**Electrical connection:**
M12 x 1
- **Power supply:**
12 to 24 VDC
- 24 VDC (PNP) maximum
- **Residual voltage:**
≤ 1 V (load current 80 mA)

- **Permissible residual ripple:**
10% or less (P-P)
- **Current consumption:**
≤ 50 mA
- **Load current:**
80 mA maximum (with output short circuit protection)

- **Switching mode:**
PNP
- **Indicator:**
Green LED (OUT1), Red LED (OUT2)

**Insulation resistance:**
50 MΩ min at 500 VDC (between case and lead wire)

Electromagnetic compatibility:
According to EN 61326-1

Technical data

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Switching pressure range (psi)</th>
<th>Output signal</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/8</td>
<td>-14.5 to 145</td>
<td>-1 to 10</td>
<td>2 x PNP</td>
<td>0860810000000000</td>
</tr>
<tr>
<td>1/8 NPT</td>
<td>-14.5 to 145</td>
<td>-1 to 10</td>
<td>2 x PNP</td>
<td>0860811000000000</td>
</tr>
<tr>
<td>G 1/8</td>
<td>-14.5 to 14.5</td>
<td>-1 to 1</td>
<td>2 x PNP</td>
<td>0860020000000000</td>
</tr>
<tr>
<td>1/8 NPT</td>
<td>-14.5 to 14.5</td>
<td>-1 to 1</td>
<td>2 x PNP</td>
<td>0860021000000000</td>
</tr>
</tbody>
</table>

*1) Short-term pressure peaks are not allowed to exceed the limit value during operation. Operative utilization of the limit value is not permitted. The limit value corresponds to the maximum testing pressure.

Accessories

- **Mounting bracket (wall mounting)**
- **Mounting bracket (bottom mounting)**
- **Panel adapter**
- **Front protective lid**
- **Mounting (DIN rail clip)**

| 0860000000000000 | 0860001000000000 | 0860002000000000 | 0860003000000000 | 0860007000000000 |

** The Panel mounting kit consists of two part numbers: 0860002000000000 and 0860003000000000. BOTH numbers must be ordered for the mounting kit to function.
Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. © 2016 Norgren, Inc.

**51D Pneumatic electronic pressure switch**

### Electrical connection M12 x 1

<table>
<thead>
<tr>
<th>PIN-No.</th>
<th>Signal</th>
<th>Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+ UB</td>
<td>brown</td>
</tr>
<tr>
<td>2</td>
<td>Out 2</td>
<td>white</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>blue</td>
</tr>
<tr>
<td>4</td>
<td>Out 1</td>
<td>black</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PIN-No</th>
<th>Signal</th>
<th>Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Load</td>
<td></td>
</tr>
</tbody>
</table>

**PNP**

Switch main circuit

- + (brown)
- OUT 1 (black)
- OUT 2 (white)
- - (blue)

12 to 24 VDC.

### Pressure switch

1. Switch OUT 1, green LED
2. Switch OUT 2, red LED
3. Dustproof protector
4. Connector M12 x 1
5. Inlet port
6. Alternative inlet port G1/8 plugged
7. Thread for mounting screw

### Mounting bracket (wall mounting)

### Mounting bracket (bottom mounting)

### Panel mounting kit

1. Front protective lid
2. Panel adapter
3. Safety adaptors
Drawing - Mounting (DIN rail clip)

Warning
Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes. System designers and end users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end user is responsible for verifying that all requirements for the application are met.

Proposition 65
This product may contain chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Warranty
The products described herein are warranted subject to seller’s Standard Terms and Condition of Sale, available at seller’s website.