Relative pressure switch
Type 620/625

Type 620 and 625 pressure switches, with 13 pressure ranges, are suitable for liquids and gases. Body materials are available in plastic, brass and aluminium, with a choice of NBR, FPM, EPDM and silicone diaphragms.
Very high precision through finely tuned measurement stages and high long term stability. Rugged design and especially suitable for use in general industrial equipment construction, process technology and food automation.

Pressure range
-4 ... -900 mbar / 2 ... 6000 mbar

- High accuracy by 13 ideally designed pressure range increments
- Switching differences adjustable
- High long term stability with reproducibility of switching points < ± 0.3 mbar
- Customer specific switching points adjustable in factory
- Rugged industrial switch with excellent Price / performance ratio
## Technical overview

### Pressure range
- **Relative**
  - 2 ... 6000 mbar
- **Negative**
  - -4 ... -900 mbar

### Operating conditions
- **Medium**
  - Liquids and neutral gases
  - NBR based
  - FPM
  - EPDM
  - Q (Silicone)
- **Temperature**
  - NBR based: 0 ... +80 ºC
  - FPM: -10 ... +80 ºC
  - EPDM: -10 ... +80 ºC
  - Q (Silicone): -40 ... +80 ºC
  - Ambient: +65 ºC
  - Storage: -40 ... +80 ºC

### Tolerable overload
- See order code selection table

### Lowest turn-on pressure
- 2 mbar

### Lowest switching difference
- 1 mbar

### Materials
- **Case**
  - Fibreglass reinforced plastic
- **Diaphragm**
  - NBR based
  - FPM
  - EPDM
  - Silicone
- **Base type 620**
  - ABS or PA
- **Base type 625**
  - Aluminium, nickel plated brass
- **Other components**
  - A 5 CrNi 18-10, 1.4301
  - Polyacetate (only at negative)

### Electrical overview
- **Nominal voltage**
  - 250 VAC
- **Nominal current for resistive loading**
  - 1 A
  - 6 A
- **Nominal current for motor loading**
  - 0.5 A
  - 3 A
- **Contact system**
  - Changeover contact
- **Service life**
  - Mechanically 10^6 switching cycle

### Protection standard
- **Without cover**
  - IP 00
- **With cover**
  - IP 54

### Repeatability
- 4% of the switching point
- With diaphragm NBR based / Silicone minimum ±0.3 mbar
- 10% of the switching point
- With diaphragm FPM / EPDM minimum ±0.6 mbar

### Electrical connections
- **Screw terminals (Option)**
- **Tab connectors (AMP)**
  - 6.3 mm
  - with cover
- **Cable gland PG 11**

### Pressure connections
- **Type 620**
  - Inside / outside thread: M5 / M12x1
  - Connection pipe / thread: Ø 6 mm / M12x1
- **Type 625**
  - Thread with counternut: M12x1 (CuZn nickel plated), G ⅛, G ¼

### Installation arrangement
- For switching points calibrated in the factory
- Indicate installation arrangement.
- Remark: By changing the mounting position the switching points also change. The adjustment ranges are in relation with the mounting position.

### Weight
- **Type 620**
  - ~ 70 g
- **Type 625**
  - with aluminium base: ~ 100 g
  - with base brass: ~ 200 g

### Packaging
- Single packaging in cardboard
- Multiple packaging in cardboard: per 18 pcs.

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### Legend to cross-section drawing

1. Switching point setting
2. AMP tab connectors
3. Switching difference setting
4. Compression spring
5. Changeover contact
6. Contact element
7. Diaphragm

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*The permitted switching difference has to be respected
* For installation arrangement electrical connections upward
### Pressure and flow

#### Pressure range

<table>
<thead>
<tr>
<th>Pressure range</th>
<th>p max.</th>
<th>pt</th>
<th>Switching capacity 250 VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 ... 8 mbar</td>
<td>30 mbar</td>
<td>50 mbar</td>
<td>1 A</td>
</tr>
<tr>
<td>6 ... 75 mbar</td>
<td>300 mbar</td>
<td>500 mbar</td>
<td>1 A</td>
</tr>
<tr>
<td>12.5 ... 80 mbar</td>
<td>300 mbar</td>
<td>500 mbar</td>
<td>6 A</td>
</tr>
<tr>
<td>12.5 ... 200 mbar</td>
<td>300 mbar</td>
<td>500 mbar</td>
<td>1 A</td>
</tr>
<tr>
<td>25 ... 220 mbar</td>
<td>300 mbar</td>
<td>500 mbar</td>
<td>6 A</td>
</tr>
</tbody>
</table>

#### Pressure connection / pressure case

- Hose connection Ø 6 mm and M12x1: ABS, -40 °C, PA 66, ... +80 °C
- Inside thread M5 and M12x1: ABS, -40 °C, PA 66, ... +80 °C

#### Diaphragm material

- NBR-based: 0
- EPDM: 2
- FKM: 4
- Silicone: 6

#### Switching points (optional)

- Two factory set switching points: (please specify on order)  
- One factory set switching point high: (please specify on order)  
- One factory set switching point low: (please specify on order)  

### Order code selection table 620

<table>
<thead>
<tr>
<th>Order code selection table 620.</th>
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<th>X</th>
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<tr>
<td>p max.</td>
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<tr>
<td>pt</td>
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<td></td>
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<tr>
<td>Switching capacity 250 VAC</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure range</td>
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<td>Negative</td>
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<tr>
<td>Relative</td>
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### Order code selection table 625

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#### Pressure connection / pressure case

- G ¼: Aluminium, Brass
- M12x1: Aluminium, Brass
- NBR based: 0
- EPDM: 2
- FKM: 4
- Silicone: 6

#### Diaphragm material

- Two factory set switching points: (please specify on order)  
- One factory set switching point high: (please specify on order)  
- One factory set switching point low: (please specify on order)  

### Accessories

<table>
<thead>
<tr>
<th>Accessories</th>
<th>Order number</th>
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<tr>
<td>Cover of PG11 on the side</td>
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<tr>
<td>Mounting bracket with hole Ø 12.5 mm for M12</td>
<td>104259</td>
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<tr>
<td>Mounting bracket with hole Ø 14 mm for G ¼</td>
<td>106772</td>
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<tr>
<td>Connector set (Tab connectors AMP)</td>
<td>103479</td>
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<tr>
<td>Screw clamps set</td>
<td>103491</td>
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<tr>
<td>Calibration certificate</td>
<td>104551</td>
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</tbody>
</table>

*Other pressure ranges on request  
* pt = test pressure  
* Accessories supplied loose
**Dimensions in mm / Electrical connections**

**Setting ranges**

<table>
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<th>Setting range</th>
<th>2 ... 8 mbar</th>
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<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B</td>
<td></td>
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</tr>
</tbody>
</table>

- For vacuum:
  - 1: NC contact
  - 3: NO contact

**Upper switching point (mbar)**

**Distance between contacts**