Relative and differential pressure switch type 604

Pressure range
0.2 ... 3 – 50 mbar

The type 604 pressure switch is used as a Δp flow switch in ventilation ducts for the control of filters and fans, and in primary and secondary control systems for the control of air dampers. The 604 pressure monitoring switches are also ideally suited to protect heating coils from overheating and for monitoring industrial air cooling circuits.

- Easy to install
- Combi-bracket for vertical or horizontal installation
- User friendly snap cover
- Case geometry allows easy cable lead-in
- Cable strain relief integrated in PG11
- High adjustment accuracy through individual laser etched scale
- Long-term stability of switching points through trapezoidal bead diaphragm
- Multi-layer gold plated contact
Technical overview

Pressure range
Relative and differential 0.2 ... 3 mbar to 50 mbar

Operating conditions
Medium Air and neutral gases
Temperature Medium / ambient -30 ... +85 °C
Storage -40 ... +85 °C
Tolerable overload on one side -30 ... +75 °C 75 mbar
-30 ... +85 °C 50 mbar

Materials in contact with the medium
Sensor Silicon LSR 1)
Case PC 10% GF
Cover PC

Electrical overview
Switching load 2)
Resistive load 5 A at 250 VAC
4 A at 30 VDC
Inductive 3) 0.8 A at 250 VAC
0.7 A at 30 VDC
Contact system Changeover switch
Service life mechanical > 106 switching cycles

Protection standard
Without 3 IP 00
With cover IP 54 / IP 65

Repeatability
Setting range 0.2 ... 3 mbar ± 0.025 mbar
0.5 ... 5 mbar ± 0.05 mbar
1 ... 10 mbar ± 0.05 mbar
5 ... 20 mbar ± 0.05 mbar
10 ... 50 mbar ± 0.15 mbar

Electrical connection
Screw terminals
AMP connectors 6.3 mm
4.8 mm

Pressure connections
Pipe Ø 6.2 mm
Inside thread G 1/8

Installation arrangement
Recommendation (Factory set) Vertical, pressure connections facing downwards
Horizontal, cover facing downwards – Switching points approx. 11 Pa lower than on scale
Horizontal, cover facing upwards – Switching points approx. 11 Pa higher than on scale

Tests / Admissions
UL MHK2/2 or XAAK2/2
DVGW acc. to DIN EN 1854
Low voltage directive 2014/35/EU
Gas appliance directive 2016/426/EU

Weight
Without bracket ~ 93 g
With combi-bracket type C ~ 143 g

Packaging (Please state on order)
Single packaging in cardboard
Multiple packaging in cardboard 20 / 30 / 40 / 50 / 60 / 100 / 320 pcs

Setting ranges

![Setting ranges](image-url)
### Compact A/C set (standard)

<table>
<thead>
<tr>
<th>Setting range (mbar)</th>
<th>Connection set</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2 ... 3 mbar</td>
<td>Fig. 1 (Metal)</td>
<td>604.9000001</td>
</tr>
<tr>
<td>0.5 ... 5 mbar</td>
<td>Fig. 1 (Metal)</td>
<td>604.9100001</td>
</tr>
<tr>
<td>1 ... 10 mbar</td>
<td>Fig. 1 (Metal)</td>
<td>604.9200001</td>
</tr>
<tr>
<td>0.2 ... 3 mbar</td>
<td>Fig. 2 (Plastic)</td>
<td>604.9000002</td>
</tr>
<tr>
<td>0.5 ... 5 mbar</td>
<td>Fig. 2 (Plastic)</td>
<td>604.9100002</td>
</tr>
<tr>
<td>1 ... 10 mbar</td>
<td>Fig. 2 (Plastic)</td>
<td>604.9200002</td>
</tr>
<tr>
<td>10 ... 50 mbar</td>
<td>Fig. 2 (Plastic)</td>
<td>604.9500002</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection kit for vent duct (metal), 90° angled including tube 2 m long (Fig. 1)</td>
<td>104312</td>
</tr>
<tr>
<td>Connection kit for vent duct (plastic), straight including tube 2 m long (Fig. 2)</td>
<td>100064</td>
</tr>
<tr>
<td>Bracket type A</td>
<td>100295</td>
</tr>
<tr>
<td>Bracket type B</td>
<td>100098</td>
</tr>
<tr>
<td>Combi-bracket type C</td>
<td>100106</td>
</tr>
<tr>
<td>Attachment ring</td>
<td>110005</td>
</tr>
<tr>
<td>Attachment ring close</td>
<td>110006</td>
</tr>
<tr>
<td>Special screws for fastening bracket to switch (3 screws per switch required)</td>
<td>102976</td>
</tr>
<tr>
<td>Fastening clip for bracket A, B, C or direct mounting</td>
<td>100294</td>
</tr>
<tr>
<td>Calibration certificate (at factory set switching points)</td>
<td>104551</td>
</tr>
</tbody>
</table>

### Order code selection table

<table>
<thead>
<tr>
<th>Version</th>
<th>Standard version</th>
<th>UL version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2 ... 3 mbar</td>
<td>20 ... 300 Pa</td>
<td>0.08 ... 1.2 inH(_2)O</td>
</tr>
<tr>
<td>0.5 ... 5 mbar</td>
<td>50 ... 500 Pa</td>
<td>0.2 ... 2 inH(_2)O</td>
</tr>
<tr>
<td>1 ... 10 mbar</td>
<td>100 ... 1000 Pa</td>
<td>0.4 ... 4 inH(_2)O</td>
</tr>
<tr>
<td>5 ... 20 mbar</td>
<td>500 ... 2000 Pa</td>
<td>2 ... 8 inH(_2)O</td>
</tr>
<tr>
<td>10 ... 50 mbar</td>
<td>1000 ... 5000 Pa</td>
<td>4 ... 20 inH(_2)O</td>
</tr>
</tbody>
</table>

### Scale

- Scale in mbar
- Scale in Pa
- Scale in in\(_2\)O
- Scale in inWC

### Pressure connections

| Pressure connections | | |
|----------------------|------------------|------------------|------------------|
| Pipe Ø 0.6 mm without pressure tip orifice | 5 |
| Pipe Ø 0.6 mm with pressure tip orifice on P2 | 1 |
| Inside thread G \(\frac{1}{8}\) without pressure tip orifice | 2 |
| Inside thread G \(\frac{1}{8}\) with pressure tip orifice on P2 | 3 |

### Electronical connection

- Screw terminals
- AMP connector 6.3 mm
- AMP connector 4.8 mm

### Cover / Bracket

- With cover combi bracket type C IP 54 | 0 |
- With cover bracket type A IP 54 | 1 |
- With cover bracket type B IP 54 | 2 |
- Without cover combi bracket type C | 3 |
- Without cover bracket type A | 4 |
- Without cover bracket type B | 5 |
- Without cover without bracket | 6 |
- With cover combi bracket type C IP 65 | 7 |
- With cover bracket type A IP 65 | 8 |
- With cover bracket type B IP 65 | 9 |
- With cover without bracket IP 65 | A |

### Connection kit

- With connection set (metal), 90° angled incl. tube 2 m long (Fig. 1) | 1 |
- With connection set (plastic), straight incl. tube 2 m long (Fig. 2) | 2 |

### Switching points (optional)

- Two factory set switching points (please specify on order) | W |
- One factory set switching point high (please specify on order) | R |
- One factory set switching point low (please specify on order) | U |

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**Note:** For customer specific calibration without scale and with fixed scale
Dimensions in mm / Electrical connections

**Flow area**

1) Hole for PT screws KA25

**Bracket type A**

**Bracket type B**

**Combi-bracket type C**

**Fastening clip (mounted)**

**Mounting adaptor ring close (mounted)**

**Mounting adaptor ring (mounted)**

1 feeder (COM)
2 NC contact
3 NO contact

4 x hole PT - screw d₁ = 3.0 mm
4 x hole PT - screw d₁ = 3.0 mm