Type 402 pressure transmitters are ideally suited to measuring fine air flow in air conditioning systems, and fine pressures in the environmental / medical technology sectors. Individually ranged sensors ensure optimum accuracy and long term stability of measurement. Location is quick and easy, either via a mounting plate or directly onto a PCB.

- Attractive price / performance ratio
- Excellent synergy of diaphragm technology and ceramic elements
- Special adapter for top-hat rail mounting
- Direct pcb mounting with simple snap-on system

Pressure range
0 ... 3 – 50 mbar
## Technical Overview

### Pressure range
- Relative and differential
  - 0 ... 3 ... 50 mbar

### Operating conditions
- **Medium**: Air and neutral gases
- **Temperature**
  - Storage: 0 ... +70 ºC
  - Medium / ambient: 30 ... +70 ºC
- **Tolerable overload**: 100 mbar
- **Rupture pressure**: at room temperature: 200 mbar
  - at 50 ºC: 150 mbar

### Materials in contact with the medium
- **Case construction**: Polycarbonate (PC) / Polyamide (PA)
- **Diaphragm**: Silicone
- **Sensor**: Ceramic Al₂O₃ (96%)

### Electrical overview
- **Output**: 0.5 ... 4.5 V
- **Power supply**: 10.2 ... 33.0 VDC
- **Load**: > 15 kOhm (to GND)
- **Current consumption**: < 8 mA
- **Polarity reversal protection**: Connector and pcb version mechanically protected
- **Electromagnetic compatibility**: The product is designed exclusively for installation in equipment. The customer is responsible for CE conformity.

### Dynamic response
- **Response time**: < 10 ms
- **Load cycle**: < 10 Hz

### Protection standard
- **IP**: 65

### Electrical connections
- **Solderable pin in circuit board**: 3 pole
- **Connector RAST 2.5**: Mounted and soldered

### Pressure connection
- **Size B 6.2 mm**:

### Mounting instruction
- **Installation arrangement**: Diaphragm vertical
- **Pressure connection facing downward**: Pressure connection P1 upwards
- **Snap fitting**: Adapter
- **Mounting bracket**:

### Weight
- ~ 28 g

### Packaging
- **Single packaging in cardboard boxes**:
- **Multiple packaging in cardboard boxes with blister pack inserts**: (25 pcs)

### Accuracy

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>0 ... 3 mbar</th>
<th>0 ... 5 mbar</th>
<th>0 ... 10 mbar</th>
<th>0 ... 30 mbar</th>
<th>0 ... 50 mbar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance zero point</td>
<td>% fs</td>
<td>± 0.9</td>
<td>± 0.9</td>
<td>± 0.9</td>
<td>± 0.9</td>
<td>± 0.9</td>
</tr>
<tr>
<td>Tolerance full scale</td>
<td>% fs</td>
<td>± 1.1</td>
<td>± 1.3</td>
<td>± 1.3</td>
<td>± 0.7</td>
<td>± 0.7</td>
</tr>
<tr>
<td>Resolution</td>
<td>% fs</td>
<td>± 0.1</td>
<td>± 0.1</td>
<td>± 0.1</td>
<td>± 0.1</td>
<td>± 0.1</td>
</tr>
<tr>
<td>Total of linearity, hysteresis and repeatability</td>
<td>% fs</td>
<td>± 1.0</td>
<td>± 1.0</td>
<td>± 0.6</td>
<td>± 0.6</td>
<td>± 0.6</td>
</tr>
<tr>
<td>Long term stability acc. to DIN EN 60770</td>
<td>% fs</td>
<td>± 1.0</td>
<td>± 1.0</td>
<td>± 1.0</td>
<td>± 1.0</td>
<td>± 1.0</td>
</tr>
<tr>
<td>TC zero point</td>
<td>% fs/10K</td>
<td>± 0.2</td>
<td>± 0.2</td>
<td>± 0.2</td>
<td>± 0.2</td>
<td>± 0.2</td>
</tr>
<tr>
<td>TC zero point</td>
<td>max. % fs/10K</td>
<td>± 0.4</td>
<td>± 0.4</td>
<td>± 0.4</td>
<td>± 0.4</td>
<td>± 0.4</td>
</tr>
<tr>
<td>TC sensitivity</td>
<td>typ. % fs/10K</td>
<td>± 0.3</td>
<td>± 0.3</td>
<td>± 0.2</td>
<td>± 0.2</td>
<td>± 0.2</td>
</tr>
<tr>
<td>TC sensitivity</td>
<td>max. % fs/10K</td>
<td>± 0.6</td>
<td>± 0.5</td>
<td>± 0.4</td>
<td>± 0.4</td>
<td>± 0.4</td>
</tr>
</tbody>
</table>

**Test conditions**: 25 ºC, 45% RH, power supply 12 VDC

TC z.p./TC s. 0 ... +70 ºC

Note: % fs = % full scale; mbar = millibars; 10K = 10,000 ohms; TC = Temperature coefficient.
Order code selection table

<table>
<thead>
<tr>
<th>Pressure range</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>0...3 mbar</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>0...5 mbar</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>0...10 mbar</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>0...30 mbar</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>0...50 mbar</td>
<td>9</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

▲ Full scale signal at these pressure

Adjusting position

- Diaphragm vertical
- Diaphragm horizontal

Diaphragm

- Silicone

Output / power supply

- 0.5…4.5 V
- 10.2…33 VDC

Electrical connection

- Connector version Rast 2.5
- Connector version, mounted and soldered on adapter plate
- Connector with cable

Pressure connection

- Pipe Ø 6.2 mm

Accessories (supplied loose)

- Fixing screw for wall thickness 1 – 2 mm
- Fixing screw for wall thickness 4.1 – 6 mm
- Connector Rast 2.5 with cable (110 cm)
- Base plate for rail mounting suitable for bearing rail TS 35
- Bracket
- Calibration certificate
- AMP connector

<table>
<thead>
<tr>
<th>Manufacturer’s Part No.</th>
<th>Colour</th>
<th>for flexible wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-829868-3</td>
<td>grey</td>
<td>7 x 0.20 mm = 0.22 mm² or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 x 0.20 mm = 0.35 mm²</td>
</tr>
<tr>
<td>1-966194-3</td>
<td>beige</td>
<td>7 x 0.25 mm = 0.35 mm²</td>
</tr>
</tbody>
</table>

Mounting Bracket

Base plate for rail mounting suitable for bearing rail TS 35

Other pressure range on request

For changing diaphragm position from horizontal to vertical, approx. -0.13 mbar.

To be ordered separately from original manufacturer. Further information can be found in the manufacturer specification No. 114-18049.
Dimensions in mm / Electrical connections

Connector version

Fixing holes for PT fillister head screw 2.5

Print version

Fixing holes for PT fillister head screw 2.5