

# PRESSURE TRANSMITTER WITH FLUSH WELDED STAINLESS STEEL DIAPHRAGM



DRUCK & TEMPERATUR

**Pressure ranges 0...100 up to 0...40 bar**  
**Accuracy 0,35%**

The pressure transmitter was designed for use in the food / beverage and pharmaceutical industry.  
The compact design with hygienic versions makes it possible to achieve an outstanding performance in terms of accuracy, temperature behaviour and long term stability.



## Applications

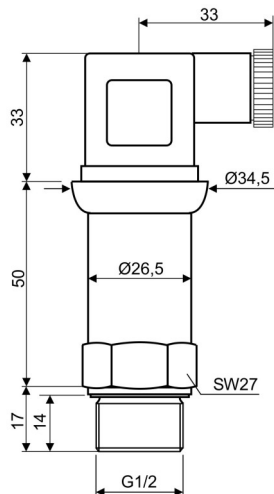
Mechanical and plant engineering  
Food and beverage industry  
Pharmaceutical industries

| Type                                                          | 3380                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |  |  |  |  | 3385                                                                 |  |  |  |  |  |  |  | Options                                                                    |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|----------------------------------------------------------------------|--|--|--|--|--|--|--|----------------------------------------------------------------------------|------|------|------|-----|-----|-----|-----|-----|----|----|-----|-----|-----|----|---|-----|---|---|---|---|---|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|---|-----|-----|----|----|----|----|----|-----|-----|-----|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Nominal pressure                                              | 0...100 mbar bar up to 0...40 bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | Vacuum range                                                               |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Input pressure range                                          | <table><tr><td>-1..0</td><td>0,10</td><td>0,16</td><td>0,25</td><td>0,4</td><td>0,6</td><td>1</td><td>1,6</td><td>2,5</td><td>4</td><td>6</td><td>10</td><td>16</td><td>25</td><td>40</td></tr><tr><td>5</td><td>0,5</td><td>1</td><td>1</td><td>2</td><td>5</td><td>5</td><td>10</td><td>10</td><td>20</td><td>40</td><td>40</td><td>80</td><td>80</td><td>105</td></tr><tr><td>7,5</td><td>1,5</td><td>1,5</td><td>1,5</td><td>3</td><td>7,5</td><td>7,5</td><td>15</td><td>15</td><td>25</td><td>50</td><td>50</td><td>120</td><td>120</td><td>210</td></tr><tr><td colspan="15">&gt; 1 bar unlimited</td></tr></table> |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | -1..0                                                                      | 0,10 | 0,16 | 0,25 | 0,4 | 0,6 | 1   | 1,6 | 2,5 | 4  | 6  | 10  | 16  | 25  | 40 | 5 | 0,5 | 1 | 1 | 2 | 5 | 5 | 10 | 10 | 20 | 40 | 40 | 80 | 80 | 105 | 7,5 | 1,5 | 1,5 | 1,5 | 3 | 7,5 | 7,5 | 15 | 15 | 25 | 50 | 50 | 120 | 120 | 210 | > 1 bar unlimited |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| -1..0                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | 0,10                                                                       | 0,16 | 0,25 | 0,4  | 0,6 | 1   | 1,6 | 2,5 | 4   | 6  | 10 | 16  | 25  | 40  |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | 0,5                                                                        | 1    | 1    | 2    | 5   | 5   | 10  | 10  | 20  | 40 | 40 | 80  | 80  | 105 |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7,5                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | 1,5                                                                        | 1,5  | 1,5  | 3    | 7,5 | 7,5 | 15  | 15  | 25  | 50 | 50 | 120 | 120 | 210 |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| > 1 bar unlimited                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nominal pressure                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Overpressure                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Burst pressure ≥                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vacuum resistance                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output signal                                                 | 4...20 mA (2-wire)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |  | 0...10 V (3-wire)                                                    |  |  |  |  |  |  |  | other on request                                                           |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Supply                                                        | 8...32 V <sub>DC</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  | 14...30 V <sub>DC</sub>                                              |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Accuracy (including non-linearity, hysteresis, repeatability) | Nominal pressure < 4 bar ≤ ± 0,50 % FSO<br>Nominal pressure ≥ 4 bar ≤ ± 0,35 % FSO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | Nominal pressure < 4 bar ≤ ± 0,25 % FSO                                    |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stability / year                                              | ≤ ± 0,1 % FSO / year at reference conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Response time(10...90%)                                       | ≤ 10 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |  |  |  |  |  | ≤ 3 ms                                                               |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Permissible load                                              | Power: R <sub>max</sub> =[(U <sub>B</sub> -U <sub>Bmin</sub> ) / 0,02 A] Ω                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |  | Power: R <sub>max</sub> = 500 Ω<br>Voltage: R <sub>min</sub> = 10 kΩ |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power consumption                                             | max. 25 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |  | max. 7 mA                                                            |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature ranges                                            | Medium: - 40...125°C with filling liquid silicone oil<br>Medium: - 10...125°C with filling liquid food compatible oil<br>Storage: -40...100°C, ambient/electronics : -40...85°C                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | Medium temperature with cooling element<br>300°C on request                |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Material                                                      | Case: 1.4404<br>Pressure connection: 1.4435<br>Diaphragm: 1.4435<br>Seals: FKM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | Compact field housing<br><br>Hastelloy®, Tantal<br>FFKM, others on request |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pressure connection                                           | G1/2 B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  | More see page 2                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shock stability                                               | 500 g/1 ms DIN EN 60068-2-27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vibration stability                                           | 20 g, 25 Hz...2kHz according to DIN EN 60068-2-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weight                                                        | Minimum 200 g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CE-mark                                                       | EMV-directive 2014/30/EU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operational life                                              | 100 millions load cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Electrical protection                                         | permanent short-circuit protection, reverse polarity protection,<br>Electromagnetic protection: emission and immunity to EN 61326                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| More options                                                  | Explosion protection or SIL2-version only 4...20 mA/2-wire                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |  |  |  |  |                                                                      |  |  |  |  |  |  |  |                                                                            |      |      |      |     |     |     |     |     |    |    |     |     |     |    |   |     |   |   |   |   |   |    |    |    |    |    |    |    |     |     |     |     |     |   |     |     |    |    |    |    |    |     |     |     |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

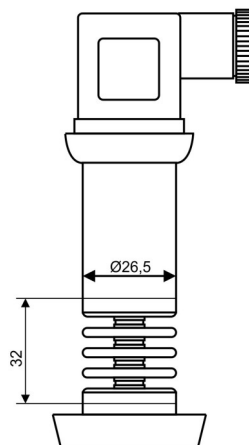
Type 3380, 3385

## Dimensional drawings

Dimensions in mm



G1/2 flush DIN 3852



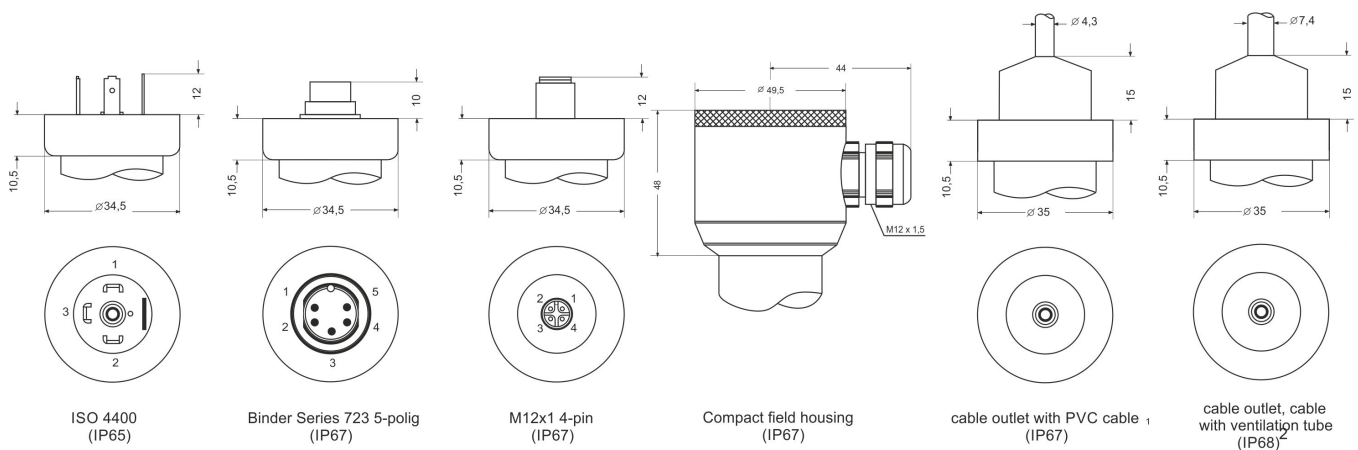
Cooling element 300°

### Optional mechanical connections

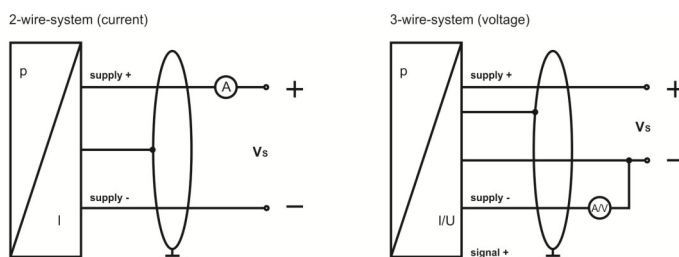
- G3/4 flush
- G1 flush
- G1/2 flush with O-ring
- G1 flush with O-ring  $P_N \leq 2$  bar
- G1 cone
- Varivent  $P_N \leq 25$  bar
- Dairy pipe DIN 11851
- Clamp DIN 32676

More threads on request

## Electrical connections



## Wiring diagram, pin configuration



| Electrical connection | ISO 4400   | Binder Serie 723, 5-pin | M12 x 1, 4-pin | Compact field housing | Cable colours        |
|-----------------------|------------|-------------------------|----------------|-----------------------|----------------------|
| Supply +              | 1          | 3                       | 1              | IN+                   | wh (white)           |
| Supply -              | 2          | 4                       | 2              | IN-                   | bn (brown)           |
| Signal + (3-wire)     | 3          | 1                       | 3              | OUT+                  | gn (green)           |
| Shield                | ground pin | 5                       | 4              | ground pin            | ye/gn (yellow/green) |