

# DMP 331

Industrial Pressure Transmitter

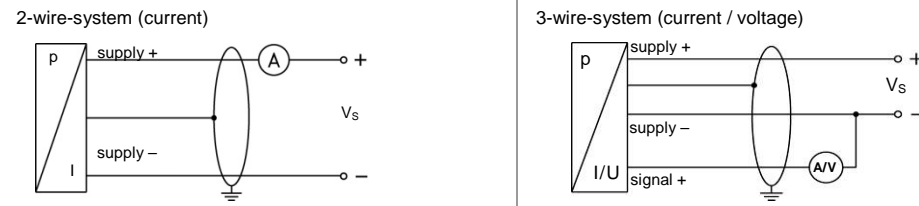
Technical Data

| Miscellaneous             |   |
|---------------------------|---|
| Option SIL <sup>3</sup> 2 | according to IEC 61508 / IEC 61511                                      |
| Current consumption       | signal output current: max. 25 mA      signal output voltage: max. 7 mA |
| Weight                    | approx. 200 g   |
| Installation position     | any <sup>4</sup>  |
| Operational life          | > 100 x 10 <sup>6</sup> pressure cycles                                 |
| CE-conformity             | EMC Directive: 2004/108/EC  |
| ATEX Directive            | 94/9/EG   |

<sup>3</sup> only for 4 ... 20 mA / 2-wire, not in combination with the accuracy 0.1%

<sup>4</sup> Pressure transmitters are calibrated in a vertical position with the pressure connection down. If this position is changed on installation there can be slight deviations in the zero point for pressure ranges  $P_N \leq 1$  bar.

### Wiring diagrams

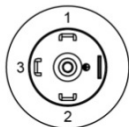
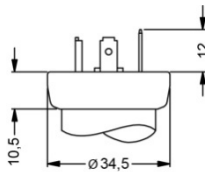


### Pin configuration

| Electrical connection | ISO 4400   | Binder 723 (5-pin) | M12x1 / metal (4-pin) | field housing | cable colours (DIN 47100) |
|-----------------------|------------|--------------------|-----------------------|---------------|---------------------------|
| Supply +              | 1          | 3                  | 1                     | IN +          | wh (white)                |
| Supply -              | 2          | 4                  | 2                     | IN -          | bn (brown)                |
| Signal + (for 3-wire) | 3          | 1                  | 3                     | OUT+          | gn (green)                |
| Shield                | ground pin | 5                  | 4                     | ⊥             | ye/gn (yellow / green)    |

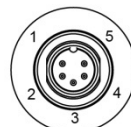
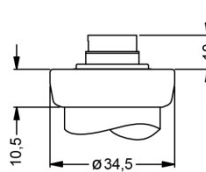
### Electrical connections (dimensions in mm)

#### standard

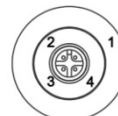
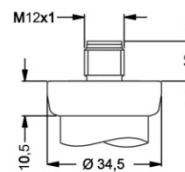


ISO 4400 (IP 65)

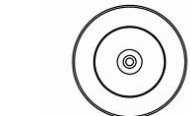
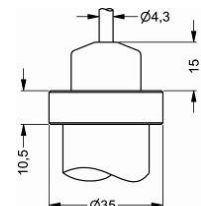
#### option



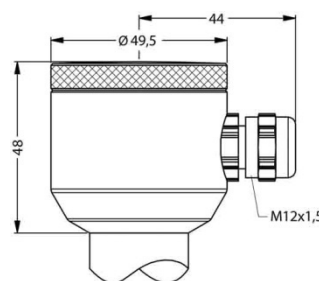
Binder Series 723 5-pin (IP 67)



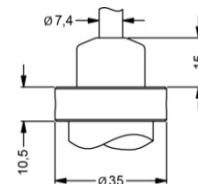
M12x1 4-pin (IP 67)



cable outlet with PVC cable (IP 67)<sup>5</sup>



compact field housing (IP 67)



cable outlet, cable with ventilation tube (IP 68)<sup>6</sup>

⇒ universal field housing stainless steel 1.4404 (316 L) with cable gland M20x1.5 (ordering code 880) and other versions on request

<sup>5</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C)

<sup>6</sup> different cable types and lengths available, permissible temperature depends on kind of cable

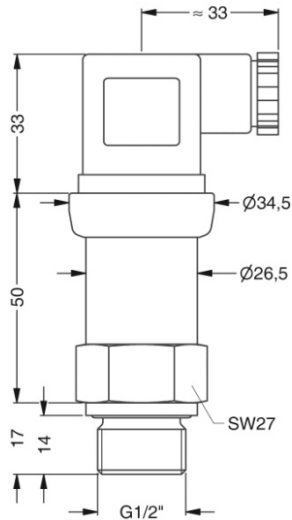
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Technical Data

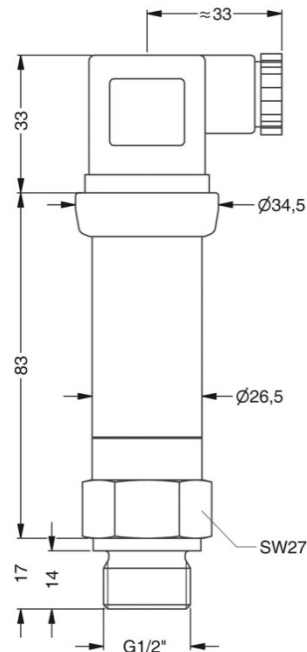
## Mechanical connections (dimensions in mm)

### standard



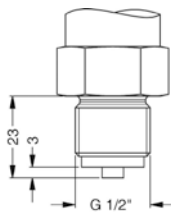
G1/2" DIN 3852  
with ISO 4400

### SIL- and SIL-IS-version

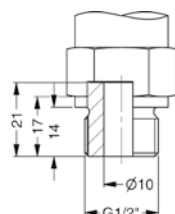


G1/2" DIN 3852  
with ISO 4400

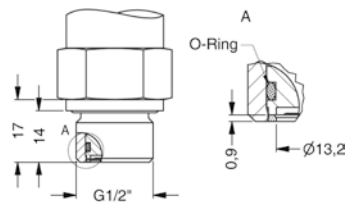
### option



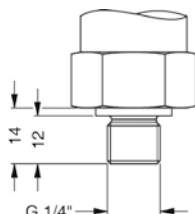
G1/2" EN 837



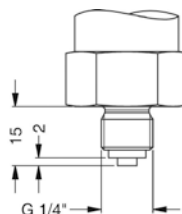
G1/2" open port



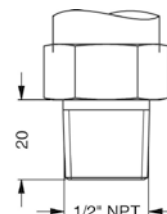
G1/2" DIN 3852  
with flush sensor



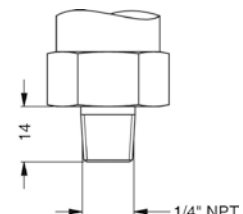
G1/4" DIN 3852



G1/4" EN 837



1/2" NPT



1/4" NPT

⇒ metric threads and other versions on request

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Ordering code DMP 331

DMP 331

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|                              |   |                    |   |   |   |    |   |   |   |         |
|------------------------------|---|--------------------|---|---|---|----|---|---|---|---------|
| <b>Pressure</b>              |   |                    |   |   |   |    |   |   |   |         |
|                              | gauge   | 1                  | 1 | 0 |   |    |   |   |   |         |
|                              | absolute <sup>1</sup>                           | 1                  | 1 | 1 |   |    |   |   |   |         |
| <b>Input</b>                 |   |                    |   |   |   |    |   |   |   |         |
|                              | [bar]   |                    |   |   |   |    |   |   |   |         |
|                              | 0.10  | 1                  | 1 | 0 | 0 | 0  |   |   |   |         |
|                              | 0.16  | 1                  | 1 | 6 | 0 | 0  |   |   |   |         |
|                              | 0.25  | 1                  | 2 | 5 | 0 | 0  |   |   |   |         |
|                              | 0.40  |                    | 4 | 0 | 0 | 0  |   |   |   |         |
|                              | 0.60  |                    | 6 | 0 | 0 | 0  |   |   |   |         |
|                              | 1.0   |                    | 1 | 0 | 0 | 1  |   |   |   |         |
|                              | 1.6   |                    | 1 | 6 | 0 | 1  |   |   |   |         |
|                              | 2.5   |                    | 2 | 5 | 0 | 1  |   |   |   |         |
|                              | 4.0   |                    | 4 | 0 | 0 | 1  |   |   |   |         |
|                              | 6.0   |                    | 6 | 0 | 0 | 1  |   |   |   |         |
|                              | 10  |                    | 1 | 0 | 0 | 2  |   |   |   |         |
|                              | 16  |                    | 1 | 6 | 0 | 2  |   |   |   |         |
|                              | 25  |                    | 2 | 5 | 0 | 2  |   |   |   |         |
|                              | 40  |                    | 4 | 0 | 0 | 2  |   |   |   |         |
|                              | 60  |                    | 6 | 0 | 0 | 2  |   |   |   |         |
|                              | -1 ... 0  |                    | X | 1 | 0 | 2  |   |   |   |         |
|                              | customer  |                    | 9 | 9 | 9 | 9  |   |   |   | consult |
| <b>Output</b>                |   |                    |   |   |   |    |   |   |   |         |
|                              | 4 ... 20 mA / 2-wire                            |                    |   |   |   | 1  |   |   |   |         |
|                              | 0 ... 20 mA / 3-wire                            |                    |   |   |   | 2  |   |   |   |         |
|                              | 0 ... 10 V / 3-wire                             |                    |   |   |   | 3  |   |   |   |         |
|                              | Intrinsic safety 4 ... 20 mA / 2-wire           |                    |   |   |   | E  |   |   |   |         |
|                              | SIL2 4 ... 20 mA / 2-wire                       |                    |   |   |   | 1S |   |   |   |         |
|                              | SIL2 with intrinsic safety 4 ... 20 mA / 2-wire |                    |   |   |   | ES |   |   |   |         |
|                              | customer  |                    |   |   |   | 9  |   |   |   | consult |
| <b>Accuracy</b>              |   |                    |   |   |   |    |   |   |   |         |
|                              | standard for P <sub>N</sub> ≥ 0.4 bar           | 0.35 %             |   |   |   | 3  |   |   |   |         |
|                              | standard for P <sub>N</sub> < 0.4 bar           | 0.5 %              |   |   |   | 5  |   |   |   |         |
|                              | option 1 for P <sub>N</sub> ≥ 0.4 bar           | 0.25 %             |   |   |   | 2  |   |   |   |         |
|                              | option 2  | 0.1 % <sup>2</sup> |   |   |   | 1  |   |   |   |         |
|                              | customer  |                    |   |   |   | 9  |   |   |   | consult |
| <b>Electrical connection</b> |   |                    |   |   |   |    |   |   |   |         |
|                              | Male and female plug ISO 4400                   |                    |   |   |   | 1  | 0 | 0 |   |         |
|                              | Male plug Binder series 723 (5-pin)             |                    |   |   |   | 2  | 0 | 0 |   |         |
|                              | Cable outlet with PVC cable <sup>3</sup>        |                    |   |   |   | T  | A | 0 |   |         |
|                              | Cable outlet <sup>4</sup>                       |                    |   |   |   | T  | R | 0 |   |         |
|                              | Male plug M12x1 (4-pin) / metal                 |                    |   |   |   | M  | 1 | 0 |   |         |
|                              | Compact field housing                           |                    |   |   |   | 8  | 5 | 0 |   |         |
|                              | stainless steel 1.4305                          |                    |   |   |   | 9  | 9 | 9 |   |         |
|                              | customer  |                    |   |   |   |    |   |   |   | consult |
| <b>Mechanical connection</b> |   |                    |   |   |   |    |   |   |   |         |
|                              | G1/2" DIN 3852                                  |                    |   |   |   | 1  | 0 | 0 |   |         |
|                              | G1/2" EN 837                                    |                    |   |   |   | 2  | 0 | 0 |   |         |
|                              | G1/4" DIN 3852                                  |                    |   |   |   | 3  | 0 | 0 |   |         |
|                              | G1/4" EN 837                                    |                    |   |   |   | 4  | 0 | 0 |   |         |
|                              | G1/2" DIN 3852 with flush sensor                |                    |   |   |   | F  | 0 | 0 |   |         |
|                              | G1/2" DIN 3852 open pressure port               |                    |   |   |   | H  | 0 | 0 |   |         |
|                              | 1/2" NPT  |                    |   |   |   | N  | 0 | 0 |   |         |
|                              | 1/4" NPT  |                    |   |   |   | N  | 4 | 0 |   |         |
|                              | customer  |                    |   |   |   | 9  | 9 | 9 |   | consult |
| <b>Seals</b>                 |   |                    |   |   |   |    |   |   |   |         |
|                              | FKM   |                    |   |   |   |    |   | 1 |   |         |
|                              | EPDM  |                    |   |   |   |    |   | 3 |   |         |
|                              | without (welded version) <sup>5</sup>           |                    |   |   |   |    |   | 2 |   |         |
|                              | customer  |                    |   |   |   |    |   | 9 |   | consult |
| <b>Special version</b>       |   |                    |   |   |   |    |   |   |   |         |
|                              | standard  |                    |   |   |   |    |   | 0 | 0 | 0       |
|                              | customer  |                    |   |   |   |    |   | 9 | 9 | 9       |
|                              |   |                    |   |   |   |    |   |   |   | consult |

<sup>1</sup> absolute pressure possible from 0.4 bar  
<sup>2</sup> not in combination with SIL  
<sup>3</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C), others on request  
<sup>4</sup> cable with ventilation tube (code TR0 = PVC cable), different cable types and lengths available, price without cable  
<sup>5</sup> welded version only with pressure ports according to EN 837

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