



## 30.600 G

### OEM Pressure Transmitter Low Cost

#### Applications

- ▶ mechanical and plant engineering
- ▶ general industrial applications

#### Characteristic

- ▶ ceramic sensor
- ▶ accuracy:  
0.5 % FSO BFSL  
(1 % FSO IEC 60770)
- ▶ nominal pressure ranges from  
0 ... 1.6 bar up to 0 ... 250 bar



#### Technical Data

| Input pressure range   |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
|--|---|-----|--|--|----|--------------------------|--|---------------------|-----|-----|------------------------|------------------|--|--|
| Nominal pressure gauge [bar]   | 1.6   | 2.5 | 4  | 6  | 10 | 16                       | 25   | 40                  | 60  | 100 | 160 <sup>1</sup>       | 250 <sup>1</sup> |  |  |
| Overpressure [bar]   | 4   | 4   | 10   | 10                                       | 20 | 40                       | 40   | 100                 | 100 | 200 | 400                    | 400              |  |  |
| Burst pressure [bar]   | 7   | 7   | 15   | 15                                       | 35 | 70                       | 70   | 150                 | 150 | 250 | 450                    | 450              |  |  |
| Vacuum resistance  | unlimited                                   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| <sup>1</sup> for this pressure range accuracy is ≤ 2 % FSO IEC 60770 (≤ 1 % FSO BFSL)                            |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Output signal / Supply   |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Standard   | 2-wire:                                     |     | 4 ... 20 mA  |  | /  |                          | V <sub>S</sub> = 8 ... 32 V <sub>DC</sub>  |                     |     |     |                        |                  |  |  |
| Options  | 3-wire:                                     |     | 0 ... 10 V   |  | /  |                          | V <sub>S</sub> = 14 ... 30 V <sub>DC</sub> |                     |     |     |                        |                  |  |  |
|  | 3-wire ratiometric:                         |     | V <sub>sig</sub> = 0.5 ... 4.5 V <sub>S</sub>                        |  | /  |                          | V <sub>S</sub> = 5 ± 0.5 V <sub>DC</sub>   |                     |     |     |                        |                  |  |  |
| Performance  |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Accuracy   | IEC 60770 <sup>2</sup> : ≤ ± 1 % FSO        |     |  |  |    |                          |  | BFSL: ≤ ± 0.5 % FSO |     |     |                        |                  |  |  |
| Permissible load   | 2-wire:                                     |     | R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S min</sub> ) / 0.02] Ω |  |    |                          |  |                     |     |     |                        |                  |  |  |
|  | 3-wire:                                     |     | R <sub>min</sub> = 10 kΩ   |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Influence effects  | supply:                                     |     | 0.05 % FSO / 10 V  |  |    |                          |  |                     |     |     |                        |                  |  |  |
|  | load:                                       |     | 0.05 % FSO / kΩ  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Response time  | 2-wire:                                     |     | ≤ 10 msec  |  |    |                          |  |                     |     |     |                        |                  |  |  |
|  | 3-wire:                                     |     | ≤ 3 msec   |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Measuring rate   | 1 kHz                                       |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| <sup>2</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability) |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Thermal effects (Offset and Span) / Permissible temperatures   |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Thermal error  | ≤ ± 0.5 % FSO / 10 K (typ.)                 |     |  | permissible temperatures: -25 ... 85 °C  |    |                          |  |                     |     |     |                        |                  |  |  |
| Permissible temperatures   | medium: -25 ... 125 °C                      |     |  | electronics / environment: -25 ... 85 °C |    |                          |  |                     |     |     | storage: -40 ... 85 °C |                  |  |  |
| Electrical protection  |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Short-circuit protection   | permanent                                   |     |  |  |    | 3-wire ratiometric: none |  |                     |     |     |                        |                  |  |  |
| Reverse polarity protection  | no damage, but also no function             |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Electromagnetic protection   | emission and immunity according to EN 61326 |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Mechanical stability   |   |     |  |  |    |                          |  |                     |     |     |                        |                  |  |  |
| Vibration  | 10 g, 25 Hz ... 2 kHz                       |     |  |  |    | according to IEC 68-2-6  |  |                     |     |     |                        |                  |  |  |
| Shock  | 500 g / 1 msec                              |     |  |  |    | according to IEC 68-2-27 |  |                     |     |     |                        |                  |  |  |

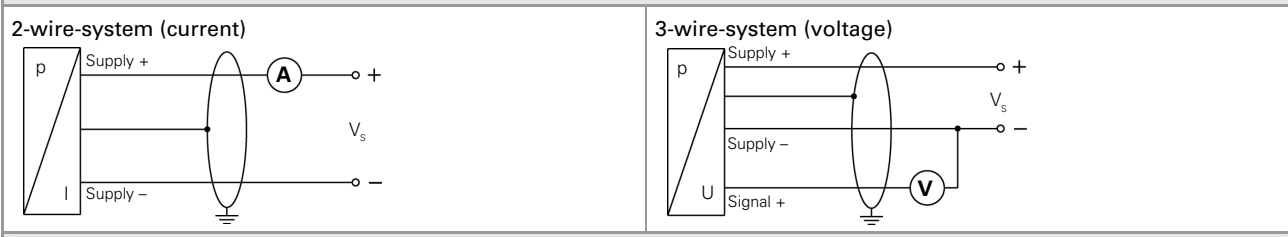
# 30.600 G

OEM Pressure Transmitter

Technical Data

| <b>Materials</b>        |  |
|-------------------------|--|
| Pressure port / housing | stainless steel 1.4301 (304)   |
| Seals (media wetted)    | FKM others on request  |
| Diaphragm               | ceramics Al <sub>2</sub> O <sub>3</sub> 96 %   |
| Media wetted parts      | pressure port, seals, diaphragm  |
| <b>Miscellaneous</b>    |  |
| Weight                  | approx. 120 g  |
| Current consumption     | 2-wire: max. 25 mA      3-wire ratiometric: typ. 1.5 mA<br>3-wire voltage: typ. 5 mA (short circuit current: max. 20 mA) |
| Long term stability     | ≤ ± 0.3 % FSO / year   |
| Operational life        | > 100 x 10 <sup>6</sup> cycles   |
| CE-conformity           | EMC Directive: 2004/108/EC      Pressure Equipment Directive: 97/23/EC (module A) <sup>3</sup>                           |

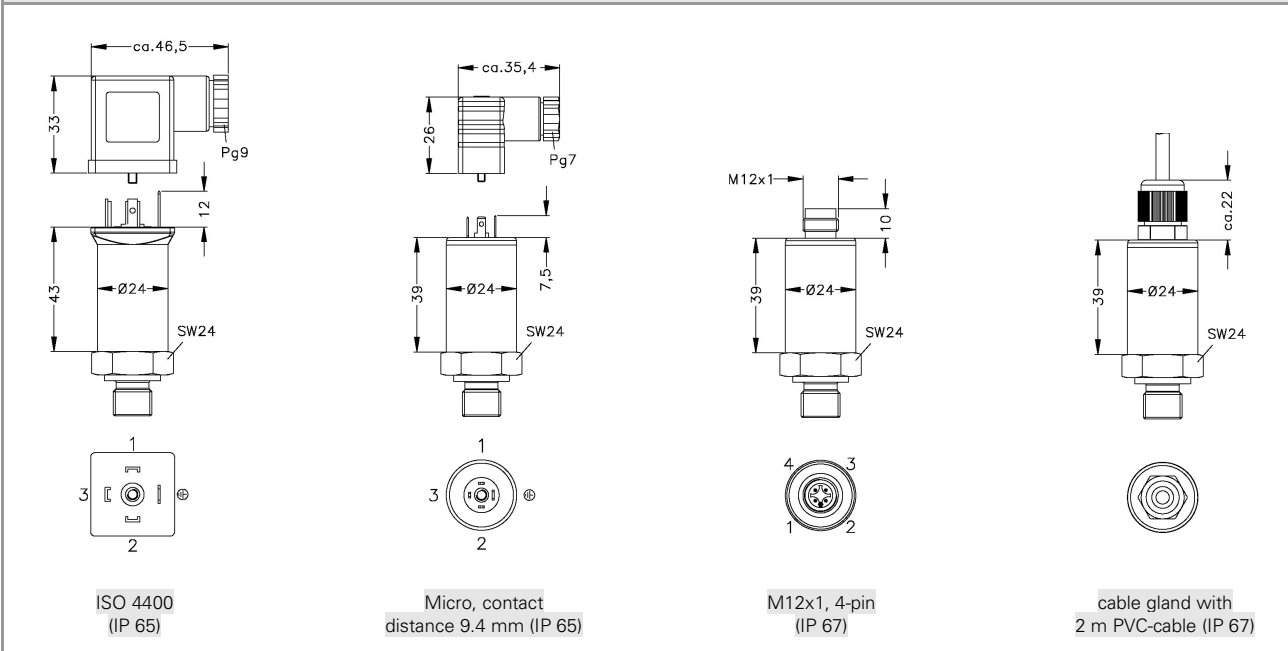
<sup>3</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar



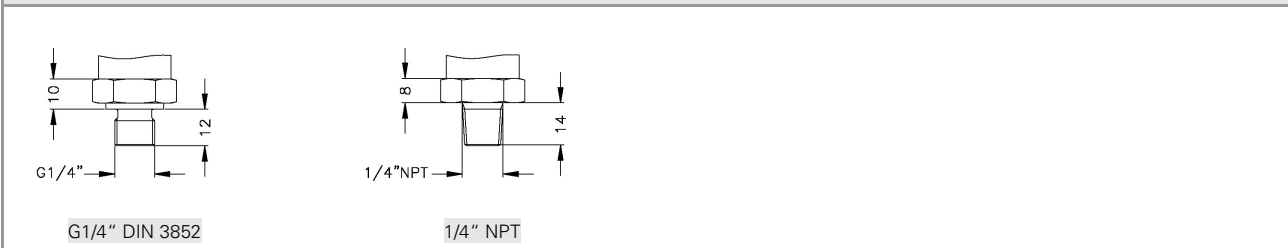
**Pin configuration**

| Electrical connection | ISO 4400   | Micro (contact distance 9.4 mm) | M12x1 (4-pin), plastic | cable colour (DIN 47100) |
|-----------------------|------------|---------------------------------|------------------------|--------------------------|
| Supply +              | 1          | 1                               | 1                      | white                    |
| Supply -              | 2          | 2                               | 2                      | brown                    |
| Signal + (for 3-wire) | 3          | 3                               | 3                      | green                    |
| Shield                | ground pin | ground pin                      | 4                      | yellow / green           |

**Electrical connections (dimensions in mm)**



**Mechanical connection (dimensions in mm)**



This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

**Ordering code 30.600 G**

**30.600 G** - [ ] [ ] [ ] [ ] - [ ] - [ ] [ ] - [ ] [ ] [ ] - [ ] [ ] [ ] - [ ] - [ ] [ ] [ ]

|                              |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|------------------------------|------------------------------------|---|---|---|---|---|---|---|--|--|--|--|--|--|---------|---------|---------|
| <b>Input</b>                 | [bar]                              |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 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 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 100                                | 1 | 0 | 0 | 3 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 160                                | 1 | 6 | 0 | 3 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 250                                | 2 | 5 | 0 | 3 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | customer                           | 9 | 9 | 9 | 9 |   |   |   |  |  |  |  |  |  | consult |         |         |
| <b>Pressure</b>              | gauge                              |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              |                                    |   |   |   | R |   |   |   |  |  |  |  |  |  |         |         |         |
| <b>Output</b>                |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 4 ... 20 mA / 2-wire               |   |   |   | 1 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 0 ... 10 V / 3-wire                |   |   |   | 3 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 0.5 ... 4.5 V / 3-wire ratiometric |   |   |   | R |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | customer                           |   |   |   | 9 |   |   |   |  |  |  |  |  |  |         | consult |         |
| <b>Accuracy</b>              |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | 1,0 % FSO <sup>1</sup>             |   |   |   | 8 |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | customer                           |   |   |   | 9 |   |   |   |  |  |  |  |  |  |         | consult |         |
| <b>Electrical connection</b> |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | Male and female plug ISO 4400      |   |   |   | 1 | 0 | 0 |   |  |  |  |  |  |  |         |         |         |
|                              | Male and female plug Micro         |   |   |   | C | 1 | 0 |   |  |  |  |  |  |  |         |         |         |
|                              | Male plug M12x1 (4-pin)            |   |   |   | M | 0 | 0 |   |  |  |  |  |  |  |         |         |         |
|                              | Cable gland with 2 m PVC cable     |   |   |   | 4 | 0 | 0 |   |  |  |  |  |  |  |         |         |         |
|                              | customer                           |   |   |   | 9 | 9 | 9 |   |  |  |  |  |  |  |         | consult |         |
| <b>Mechanical connection</b> |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | G1/4" DIN 3852                     |   |   |   |   | 3 | 0 | 0 |  |  |  |  |  |  |         |         |         |
|                              | 1/4" NPT                           |   |   |   |   | N | 4 | 0 |  |  |  |  |  |  |         |         |         |
|                              | customer                           |   |   |   |   | 9 | 9 | 9 |  |  |  |  |  |  |         | consult |         |
| <b>Seals</b>                 |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | FKM                                |   |   |   |   |   |   |   |  |  |  |  |  |  | 1       |         |         |
|                              | customer                           |   |   |   |   |   |   |   |  |  |  |  |  |  | 9       | consult |         |
| <b>Special version</b>       |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         |         |
|                              | standard                           |   |   |   |   |   |   |   |  |  |  |  |  |  | 0       | 0       | 0       |
|                              | customer                           |   |   |   |   |   |   |   |  |  |  |  |  |  | 9       | 9       | 9       |
|                              |                                    |   |   |   |   |   |   |   |  |  |  |  |  |  |         |         | consult |

<sup>1</sup> with nominal pressure P<sub>N</sub> ≥ 160 bar is accuracy ≤ 2 % FSO

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