

30.600 G

OEM Pressure Transmitter Low Cost

Applications

- ▶ mechanical and plant engineering
- ▶ general industrial applications

Characteristics

- ▶ ceramic sensor
- ▶ accuracy 1 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1.6 bar up to 0 ... 250 bar



Technical Data



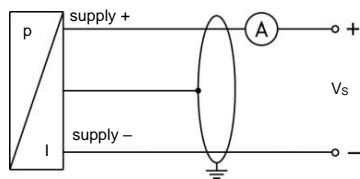
| Input pressure range | | | | | | | | | | | | | | |
|--|--|-----|--|----|--------------------------------|----|------------------------|--|-----|--------------------------|-----|-----|--|--|
| Nominal pressure gauge [bar] | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | | |
| Overpressure [bar] | 5 | 5 | 12 | 12 | 20 | 50 | 50 | 120 | 120 | 200 | 400 | 400 | | |
| Burst pressure ≥ [bar] | 7 | 7.5 | 15 | 18 | 30 | 70 | 75 | 150 | 180 | 300 | 500 | 750 | | |
| Vacuum resistance | unlimited | | | | | | | | | | | | | |
| Output signal / Supply | | | | | | | | | | | | | | |
| Standard | 2-wire: | | 4 ... 20 mA | | | | / | V _S = 8 ... 32 V _{DC} | | | | | | |
| Options | 3-wire: | | 0 ... 10 V | | | | / | V _S = 14 ... 30 V _{DC} | | | | | | |
| | 3-wire ratiometric: | | 10 ... 90 % of V _S | | | | / | V _S = 2.7 ... 5 V _{DC} | | | | | | |
| Performance | | | | | | | | | | | | | | |
| Accuracy ¹ | ≤ ± 1 % FSO | | | | | | | | | | | | | |
| Permissible load | 2-wire: | | R _{max} = [(V _S - V _{S,min}) / 0.02 A] Ω | | | | | 3-wire: | | R _{min} = 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 | | | | |
| Long term stability | ≤ ± 0.3 % FSO / year at reference conditions | | | | | | | | | | | | | |
| Measuring rate | 1 kHz | | | | | | | | | | | | | |
| ¹ 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.) | | in compensated range | | | | 0 ... 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 DIN EN 60068-2-6 | | | | | | | | | |
| Shock | 500 g / 1 msec | | | | according to DIN EN 60068-2-27 | | | | | | | | | |

| Materials | |
|-------------------------|--|
| Pressure port / housing | stainless steel 1.4301 (304) |
| Seals (media wetted) | FKM others on request |
| Diaphragm | ceramics Al ₂ O ₃ 96 % |
| Media wetted parts | pressure port, seals, diaphragm |
| Miscellaneous | |
| Weight | approx. 120 g |
| Current consumption | 2-wire: max. 25 mA 3-wire ratiometric: typ. 1.5 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA) |
| Operational life | 100 million load cycles |
| CE-conformity | EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ² |

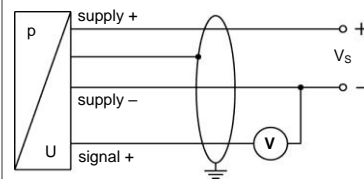
² This directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



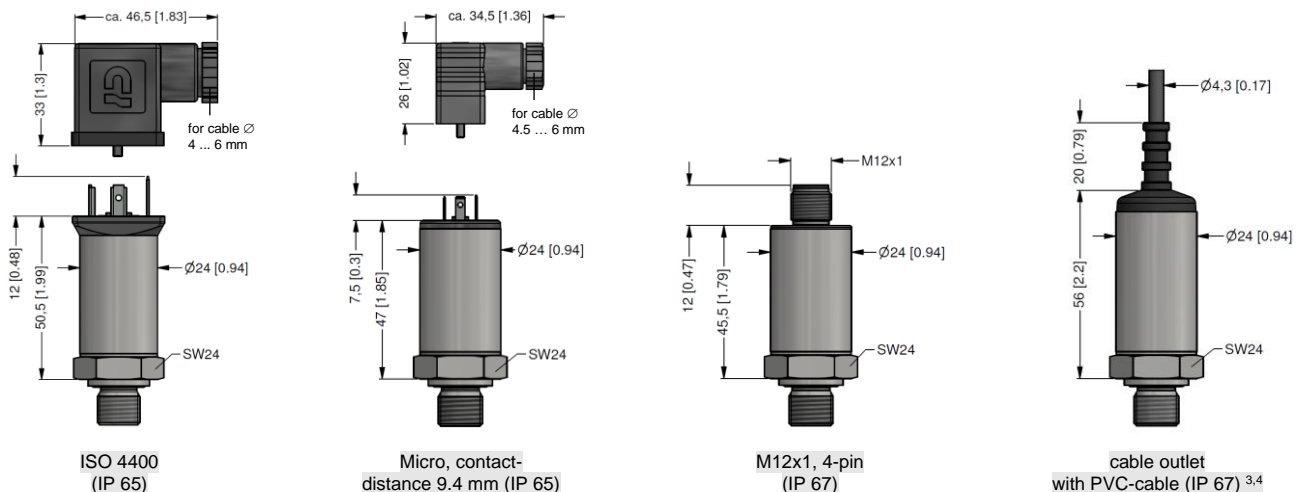
3-wire-system (voltage)



Pin configuration

| Electrical connection | ISO 4400 | Micro (contact distance 9.4 mm) | M12x1 (4-pin), metal | |
|-----------------------|------------|---------------------------------|----------------------|---------------------------|
| | | | | cable colours (IEC 60757) |
| Supply + | 1 | 1 | 1 | |
| Supply - | 2 | 2 | 2 | BN (brown) |
| Signal + (for 3-wire) | 3 | 3 | 3 | GN (green) |
| Shield | ground pin | ground pin | 4 | GYNE (green-yellow) |

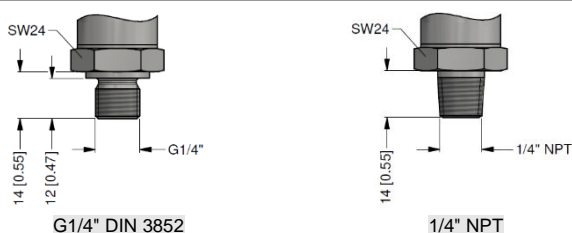
Electrical connections (dimensions mm / in)



³ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

⁴ different cable types and lengths available, permissible temperature depends on kind of cable

Mechanical connection (dimensions mm / in)



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Ordering code 30.600 G

30.600 G - [] - [] - [] - [] - [] - [] - 2 - [] - [] - []

| Input | | [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 | |
| Pressure | | | | | | | | | | | | | | | | | | | |
| | gauge | | | | R | | | | | | | | | | | | | | |
| Output | | | | | | | | | | | | | | | | | | | |
| | 4 ... 20 mA / 2-wire | | | | 1 | | | | | | | | | | | | | | |
| | 0 ... 10 V / 3-wire | | | | 3 | | | | | | | | | | | | | | |
| | 10 ... 90% of V_S / 3-wire ratiometric | | | | R | | | | | | | | | | | | | | |
| | customer | | | | 9 | | | | | | | | | | | | | consult | |
| Accuracy | | | | | | | | | | | | | | | | | | | |
| | 1.0 % FSO | | | | | 8 | | | | | | | | | | | | | |
| | customer | | | | | 9 | | | | | | | | | | | | consult | |
| Electrical connection | | | | | | | | | | | | | | | | | | | |
| | male and female plug ISO 4400 | | | | | 1 | 0 | 0 | | | | | | | | | | | |
| | male and female plug Micro | | | | | C | 1 | 0 | | | | | | | | | | | |
| | male plug M12x1 (4-pin), metal | | | | | M | 2 | 0 | | | | | | | | | | | |
| | cable outlet with PVC cable ¹ | | | | | T | M | 0 | | | | | | | | | | | |
| | customer | | | | | 9 | 9 | 9 | | | | | | | | | | consult | |
| Mechanical connection | | | | | | | | | | | | | | | | | | | |
| | G1/4" DIN 3852 | | | | | | | | 3 | 0 | 0 | | | | | | | | |
| | 1/4" NPT | | | | | | | | N | 4 | 0 | | | | | | | | |
| | customer | | | | | | | | 9 | 9 | 9 | | | | | | | consult | |
| Seal | | | | | | | | | | | | | | | | | | | |
| | FKM | | | | | | | | | | | | | | | 1 | | | |
| | customer | | | | | | | | | | | | | | | 9 | | consult | |
| Special version | | | | | | | | | | | | | | | | | | | |
| | standard | | | | | | | | | | | | | | | | 0 | 0 | 0 |
| | customer | | | | | | | | | | | | | | | | 9 | 9 | 9 |

¹ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)