

IMP 26.600 G

OEM Pressure Transmitter Standard



Applications

- ▶ mechanical and plant engineering
- ▶ general industrial applications

Characteristics

- ▶ ceramic sensor
- ▶ accuracy 0.5 % FSO according to IEC 60770
- ▶ nominal pressure ranges from 0 ... 1 bar up to 0 ... 400 bar
- ▶ option: oil and grease free version



Technical Data

| Input pressure range | | | | | | | | | | | | | | | | |
|------------------------|-------|---------------------|---|-----|-----|----|----|----|----|----|-----|-----|-----|-----|-----|------|
| Nominal pressure gauge | [bar] | -1...0 ¹ | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | 400 |
| Nominal pressure abs. | [bar] | - | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 250 | 400 |
| Overpressure | [bar] | 3 | 3 | 5 | 5 | 12 | 12 | 20 | 50 | 50 | 120 | 120 | 200 | 400 | 400 | 650 |
| Burst pressure ≥ | [bar] | 4 | 4 | 7 | 7.5 | 15 | 18 | 30 | 70 | 75 | 150 | 180 | 300 | 500 | 750 | 1000 |
| Vacuum resistance | | unlimited | | | | | | | | | | | | | | |

¹ for this pressure range accuracy is ≤ 1 % FSO IEC 60770

| 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 ² | ≤ ± 0.5 % FSO | for p _N -1...0 bar: ≤ 1 % FSO |
| Permissible load | 2-wire: R _{max} = [(V _S - V _{Smin}) / 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 | |

² accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)

| Thermal effects (offset and span) / Permissible temperatures | | | |
|--|------------------------|--|------------------------|
| Thermal error | ≤ ± 0.3 % FSO / 10 K | 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 |

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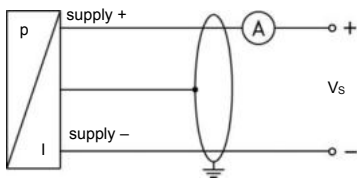
Technical Data

| 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 | |
| Option oxygen application | for p _N ≤ 25 bar: O-ring in FKM Vi 567 (with BAM-approval); permissible maximum values are 25 bar / 150° C |
| Weight | approx. 120 g |
| Current consumption | 2-wire: max. 25 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA) 3-wire ratiometric: typ. 1.5 mA |
| Operational life | 100 million load cycles |
| CE-conformity | EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ³ |

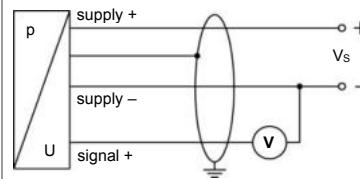
³ this directive is only valid for devices with maximum permissible overpressure > 200 bar

Wiring diagrams

2-wire-system (current)



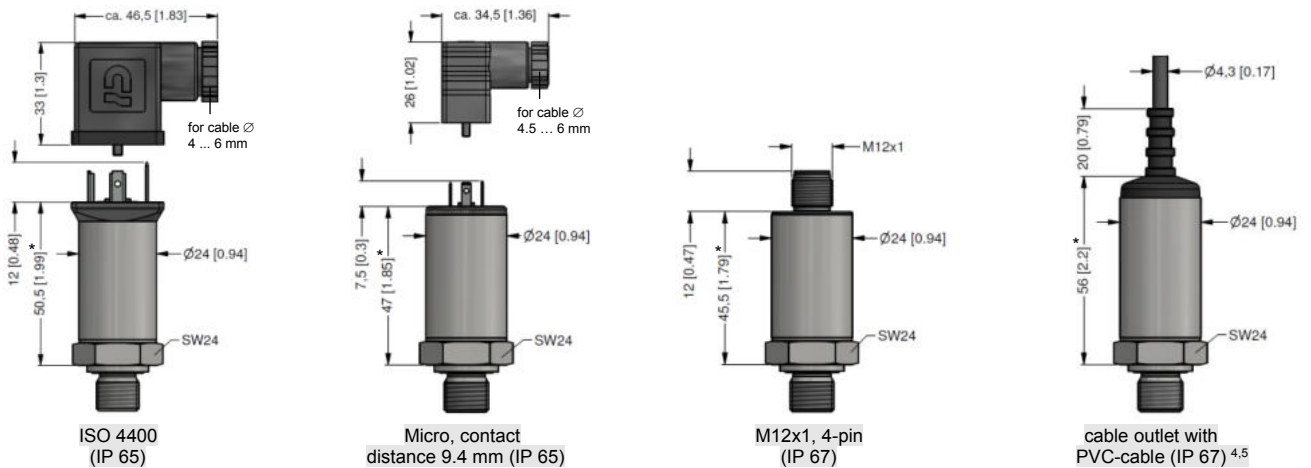
3-wire-system (voltage)



Pin configuration

| Electrical connection | ISO 4400 | Micro (contact distance 9.4 mm) | M12x1 (4-pin), metal | cable colours (IEC 60757) |
|-----------------------|------------|---------------------------------|----------------------|---------------------------|
| Supply + | 1 | 1 | 1 | WH (white) |
| 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)

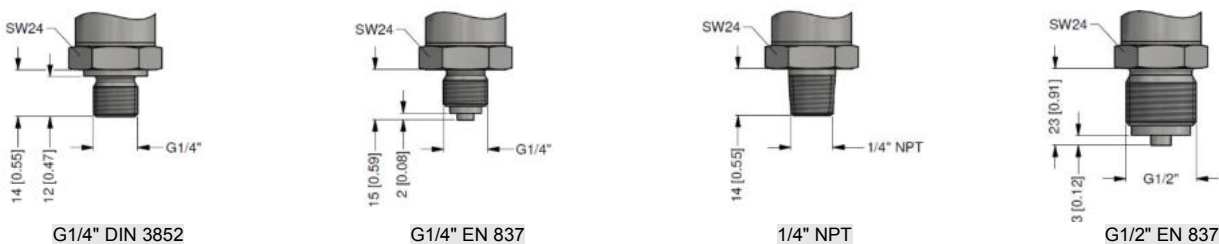


* pressure range p_N = 400 bar: total length increases by 12 mm

⁴ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

⁵ different cable types and lengths available, permissible temperature depends on kind of cable

Mechanical connection (dimensions mm / in)



Ordering code IMP 26.600 G

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| | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|--|---------|
| Input | | | | | | | | | | | |
| | [bar] | | | | | | | | | | |
| | 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 | | | | | | |
| | 100 | 1 | 0 | 0 | 3 | | | | | | |
| | 160 | 1 | 6 | 0 | 3 | | | | | | |
| | 250 | 2 | 5 | 0 | 3 | | | | | | |
| | 400 | 4 | 0 | 0 | 3 | | | | | | |
| | -1 ... 0 | X | 1 | 0 | 2 | | | | | | |
| | customer | 9 | 9 | 9 | 9 | | | | | | consult |
| Pressure | | | | | | | | | | | |
| | gauge | | | | R | | | | | | |
| | absolute | | | | A | | | | | | |
| 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 | | | | | | | | | | | |
| | 0.5 % FSO | | | | 5 | | | | | | |
| P _N : -1...0 bar | 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 | | | | |
| | G1/4" EN 837 | | | | 4 | 0 | 0 | | | | |
| | 1/4" NPT | | | | N | 4 | 0 | | | | |
| | G1/2" EN 837 | | | | 2 | 0 | 0 | | | | |
| | customer | | | | 9 | 9 | 9 | | | | consult |
| Seal | | | | | | | | | | | |
| | FKM | | | | | | 1 | | | | |
| | EPDM | | | | | | 3 | | | | |
| | customer | | | | | | 9 | | | | consult |
| Special version | | | | | | | | | | | |
| | standard | | | | | | 0 | 0 | 0 | | |
| | oxygen application ² | | | | | | 0 | 0 | 7 | | |
| | oil and grease free | | | | | | 0 | 0 | 8 | | |
| | customer | | | | | | 9 | 9 | 9 | | consult |

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

² oxygen application with FKM seal up to 25 bar possible