

HYDROGEN PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The NHT 8250 Hydrogen pressure transmitter features a thin-film-on-steel sensor based on a special hydrogen-compatible high-performance alloy for best-in-class signal stability. The robust mechanical design with fully welded housing is built to last in harsh environments.



Applications

- H₂ fuelling stations
- Hydrogen compressors
- Fuel cells
- Vehicles with H₂ drive
- Hydrogen tanks

Features

- EC79/2009 certified by the KBA Kraftfahrt-Bundesamt
- Wetted materials made of hydrogen-compatible steel
- Completely welded sensor system without additional seals
- Excellent long-term stability
- Optional Ex zone 2 conformity

| Technical Data | | | |
|-----------------------|---|-----------------------|---|
| Measuring principle | Thin-film-on-steel | Accuracy @ 25°C typ. | ± 0.5 % FS typ. ± 0.3 % FS typ. |
| Measuring range | 0 ... 1 to 0 ... 1050 bar 0 ... 15 to 0 ... 15000 psi | Media temperature | -40°C ... +85°C |
| Output signal | 4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric | Ambient temperature | max. -40°C ... + 125°C (UL-rated Umgebungstemperatur: -20°C ... +80°C) details see section Electrical Connection |
| NLH @ 25°C (BSL) typ. | ± 0.2 % FS typ. | Approval / conformity | EC79/2009: e1*79/2009*406/2010*00047*00 Ex zone 2 conformity acc. EN60079-0, EN60079-14, EN60079-7 |

06/2024

Data sheet H72338h

Subject to change

Ordering information/type code

| | | | | 8250 . XX | | | | XX | XX | XX | XX | XX |
|-------------------------------|--|------------------------|----------------------|----------------------------------|------------------------------------|----------------------|-------|-----|----|----|----|----|
| Measuring range ¹⁾ | Pressure measurement range [bar] | Over pressure [bar] | Burst pressure [bar] | Pressure measurement range [psi] | Over pressure [psi] | Burst pressure [psi] | | | | | | |
| | | 0 ... 1 | 2 | 25 | 71 | 0 ... 15 | 30 | 350 | G1 | | | |
| | 0 ... 1.6 | 3.2 | 32 | 73 | 0 ... 30 | 60 | 700 | G5 | | | | |
| | 0 ... 2.5 | 5 | 50 | 75 | 0 ... 50 | 100 | 850 | G6 | | | | |
| | 0 ... 4 | 8 | 60 | 76 | 0 ... 100 | 200 | 1450 | G7 | | | | |
| | 0 ... 6 | 12 | 100 | 77 | 0 ... 150 | 300 | 2500 | G8 | | | | |
| | 0 ... 10 | 20 | 200 | 78 | 0 ... 200 | 400 | 2500 | GA | | | | |
| | 0 ... 16 | 32 | 200 | 79 | 0 ... 250 | 500 | 2500 | G9 | | | | |
| | 0 ... 25 | 38 | 300 | 80 | 0 ... 300 | 600 | 4000 | HA | | | | |
| | 0 ... 40 | 60 | 300 | 81 | 0 ... 400 | 600 | 4000 | H0 | | | | |
| | 0 ... 60 | 90 | 400 | 82 | 0 ... 500 | 750 | 4000 | H1 | | | | |
| | 0 ... 100 | 150 | 500 | 83 | 0 ... 1000 | 1500 | 5000 | H2 | | | | |
| | 0 ... 160 | 240 | 750 | 85 | 0 ... 1500 | 2250 | 7000 | H3 | | | | |
| | 0 ... 250 | 375 | 1000 | 74 | 0 ... 2000 | 3000 | 10000 | H5 | | | | |
| | 0 ... 400 | 600 | 1500 | 84 | 0 ... 3000 | 4500 | 14500 | G4 | | | | |
| | 0 ... 600 | 900 | 2000 | 86 | 0 ... 7500 | 11250 | 29000 | H6 | | | | |
| | 0 ... 700 ¹³⁾ | 1050 | 2200 | 87 | 0 ... 10000 ¹³⁾ | 19000 | 38000 | H8 | | | | |
| | 0 ... 1000 ¹³⁾ | 1300 | 2600 | 88 | | | | | | | | |
| | 0 ... 1050 ¹³⁾ | 1300 | 2600 | 92 | | | | | | | | |
| Sensor | Relative pressure, accuracy: 0.3 % | | | 33 | Relative pressure, accuracy: 0.5 % | | | 35 | | | | |
| Pressure connection | G1/4" male, seal: DIN 3869 (accessories 61/63/83) | | | | | | | | 17 | | | |
| | 1/4" NPT male | | | | | | | | 30 | | | |
| | 1/8" NPT male | | | | | | | | 43 | | | |
| | 7/16"-20UNF-2A male, SAE J1926-2 (Heavy Duty), seal: accessory 61/63 ⁹⁾ | | | | | | | | 69 | | | |
| | 9/16"-18UNF-2A male, SAE J1926-2 (Heavy Duty), seal: accessory 61 ⁹⁾ | | | | | | | | 67 | | | |
| Electrical connection | Male electrical plug, industrial standard, contact distance 9.4 mm, Mat. PA | | | | | | | | 01 | | | |
| | Male electrical plug M12x1, 4-pole, Mat. PA, IEC 61076-2-101 | | | | | | | | 32 | | | |
| | Male electrical plug M12x1, 5-pole, Mat. PA, IEC 61076-2-101 | | | | | | | | 35 | | | |
| | Male electrical connector MIL-C 26482, 6-pole, metal | | | | | | | | 02 | | | |
| | Male electrical connector Deutsch DT04-3P, 3-pole | | | | | | | | D3 | | | |
| | Male electrical connector Deutsch DT04-4P, 4-pole | | | | | | | | D4 | | | |
| | Cable IP67, Mat. PVC ³⁾ | | | | | | | | 22 | | | |
| | Cable IP67, Mat. PUR ³⁾ | | | | | | | | 24 | | | |
| | Cable IP67, Mat. EPD Raychem FDR25 ³⁾ | | | | | | | | 08 | | | |
| | Compact design: Cable Mat. PVC, IP40, 2 x 2 x 0.14 mm ² , shielded, max. traction on cable: 2 N ^{8) 10) 11)} | | | | | | | | A1 | | | |
| | JST (or compatible) Board to Cable/Wire Disconnectable Crimp style connector, BM04B-SRSS-TB, IP20, 4-pole ^{8) 11)} | | | | | | | | J4 | | | |
| Output signal | Signal output | Load resistance | I (supply) | U (supply) | | | | | | | | |
| | 4 ... 20 mA | See graphic | (= signal output) | 24 (9 ... 32) VDC | | | | | | | | 19 |
| | 0.5 ... 4.5 VDC ⁴⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 20 |
| | 0 ... 5 VDC ⁶⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 14 |
| | 0.1 ... 4.1 VDC ⁴⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 28 |
| | 0.1 ... 5.1 VDC ⁴⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 29 |
| | 0.5 ... 5 VDC ⁶⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 22 |
| | 1 ... 5 VDC ⁶⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 25 |
| | 0.5 ... 5.5 VDC ⁴⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 24 |
| | 1 ... 6 VDC ⁶⁾ | ≥ 5.0 kΩ to Us | ≤ 20 mA | 24 (9 ... 32) VDC | | | | | | | | 16 |
| | 0 ... 10 VDC | ≥ 5.0 kΩ to Us | ≤ 15 mA | 24 (15 ... 32) VDC | | | | | | | | 17 |
| | 1 ... 10 VDC | ≥ 5.0 kΩ to Us | ≤ 15 mA | 24 (15 ... 32) VDC | | | | | | | | 26 |
| | 0.1 ... 10.1 VDC | ≥ 5.0 kΩ to Us | ≤ 15 mA | 24 (15 ... 32) VDC | | | | | | | | 13 |
| | 0.5 ... 4.5 VDC ratiometric ⁴⁾ | ≥ 5.0 kΩ to Us | ≤ 10 mA | 5 (4.75 ... 5.25) VDC | | | | | | | | 23 |

| Accessories | | |
|--|--|----|
| Female electrical plug M12x1, 5-pole ²⁾ | | 33 |
| Female electrical plug industrial standard (for electrical connection 01) | | 34 |
| Female electrical plug M12x1, 5-pole, metallic housing ²⁾ | | 35 |
| Seal FKM, -18°C ... +125°C | | 61 |
| Seal EPDM, -40°C ... +125°C | | 63 |
| Seal NBR, -25°C ... +100°C | | 83 |
| Special electrical connection: Pin 2 +, Pin 3 Ground, Pin 4 - (only for output signal 19 and male electrical connector 01, industrial standard) | | 90 |
| Special electrical connection: Pin 1 Out, Pin 2 +, Pin 3 Ground, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26 and male electrical connector 01, industrial standard) | | 91 |
| Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 3 Out, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole) | | 95 |
| Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26 and male electrical connector 32, M12x1, 4-pole) | | 96 |
| Special electrical connection: Pin 1 +, Pin 3 -, Pin 4 Out (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole) | | G1 |
| Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 Ground (only for output signal 19 and male electrical connector 01, industrial standard) | | 92 |
| Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 Ground (only for output signal 19 and male electrical connector 32, M12x1, 4-pole) | | E1 |
| Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26 and male electrical connector 32, M12x1, 4-pole) | | E2 |
| Special electrical connection: Pin 1 Out, Pin 2 -, Pin 3 +, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 01, industrial standard) | | E3 |
| Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 Out, Pin 4 Ground (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 01, industrial standard) | | E9 |
| Special electrical connection: Pin 1 +, Pin 2 Ground, Pin 4 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole) | | E6 |
| Special electrical connection: Pin A +, Pin C - (only for output signal 19 and male electrical connector Deutsch DT04-3P, 3-pole) | | F0 |
| Special electrical connection: Pin A +, Pin B Out, Pin C - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector Deutsch DT04-3P, 3-pole) | | F1 |
| Special electrical connection: Pin 2 +, Pin 3 - (only for output signals 19 and male electrical connector Deutsch DT04-4P, 4-pole) | | G3 |
| Special electrical connection: Pin 1 Out, Pin 2 +, Pin 3 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector Deutsch DT04-4P, 4-pole) | | G4 |
| Special electrical connection: Pin A +, Pin C Out, Pin B/D -, Pin E Ground (Pin B and D are connected) (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 02, MIL-C 26482) | | F3 |
| Special electrical connection: Pin 1 +, Pin 2 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole) | | F4 |
| Special electrical connection: Pin 1 +, Pin 3 - (only for output signal 19 and male electrical connector 32, M12x1, 4-pole) | | F5 |
| Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 -, Pin 4 Ground (only for output signals 19 and male electrical connector 32, M12x1, 4-pole) | | G2 |
| Special electrical connection: Pin 1 +, Pin 4 - (only for output signals 19 and male electrical connector 32, M12x1, 4-pole) | | G5 |
| Special electrical connection: Pin 2 -, Pin 3 +, Pin 4 Ground (only for output signals 19 and male electrical connector 32, M12x1, 4-pole) | | G8 |
| Special electrical connection: Pin 1 +, Pin 2 Out, Pin 3 Ground, Pin 4 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole) | | F6 |
| Special electrical connection: Pin 1 +, Pin 2 Out, Pin 3 - (only for output signals 13, 14, 16, 17, 20, 22, 23, 24, 25, 26, 28, 29 and male electrical connector 32, M12x1, 4-pole) | | F7 |
| Cable length 0.5 m | | EM |
| Cable length 1.0 m | | 1M |
| Cable length 2.0 m | | 2M |
| Multiple packaging ⁵⁾ | | VM |
| Type label e1 (EC79) ⁷⁾ | | HC |
| Ex Zone 2 conformity according EN60079-0, EN60079-14, EN60079-7 ¹²⁾ | | EX |
| UL-listed version ⁴⁾ | | UL |

¹⁾ Customized pressure ranges upon request

²⁾ For electrical connections 32 and 35

³⁾ Cable length see accessories

⁴⁾ Possible type code combinations for UL-listed versions see separate table

⁵⁾ The order quantity must be a multiple of 50

⁶⁾ Only measuring ranges > 16 bar

⁷⁾ Pressure connection 17 only measuring ranges ≤ 350 bar

⁸⁾ Not UL-listed

⁹⁾ Measuring range max. 630 bar according to SAE J1926-2 (Heavy Duty)

¹⁰⁾ Cable length 2m only, with accessory 2M

¹¹⁾ Upon request

¹²⁾ Only for electrical connections 32 and 35. Mandatory mating connector with metallic housing (accessory 35). Not in combination with accessory option HC.

¹³⁾ See separate table with maximum allowed load cycles

| Specifications | | |
|-------------------------------------|--|--|
| Electrical data | Output / supply voltage | 4 ... 20 mA: 24 (9...32) VDC 0.5 ... 4.5 VDC: 24 (9...32) VDC 0 ... 5 VDC: 24 (9...32) VDC 1 ... 5 VDC: 24 (9...32) VDC 1 ... 6 VDC: 24 (9...32) VDC 0 ... 10 VDC: 24 (15...32) VDC 0.1 ... 10.1 VDC: 24 (15...32) VDC 0.5 ... 4.5 VDC ratiom., 10 ... 90% U_{supply} : 5 ± 0.25 VDC |
| | Rise time | Typ. 1 ms / 10 ... 90 % nominal pressure |
| | Power-on delay time pressure transmitters | 100 ms |
| | Inverse-polarity protection, short-circuit strength @ 25°C during 5 min. | 4...20 mA: to $U_s = 32$ VDC 0.5...4.5 VDC, 0...5 VDC, 1...6 VDC, 1...6 VDC, 0...10 VDC, 0.1...10.1 VDC: to $U_s = 28$ VDC 0.5...4.5 VDC ratiometric: to $U_s = 14$ VDC |
| | | |
| Environmental conditions | Media temperature | -40°C ... +85°C |
| | Ambient temperature | max. -40°C ... + 125°C (UL-rated ambient temperature: -20°C ... +80°C) details see section Electrical Connection |
| | Protection | IP20, IP40, IP65, IP67, IP68 details see section Electrical Connection |
| | Humidity | Max. 95 % relative |
| | Vibration | 15 g RMS (20...2000 Hz) (EN60068-2-64) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C) (EN60068-2-6) |
| | Shock | 50 g / 11 ms 100 g / 6 ms Male electrical plug M12x1 (EN60068-2-27) ¹⁾ |
| EMC protection ²⁾ | Emission | EN/IEC 61000-6-3 |
| | Immunity | EN/IEC 61000-6-2 |
| Mechanical data | Sensor (wetted parts) | Nitrogen-strengthened austenitic steel, hydrogen compatible |
| | Pressure connection (wetted parts) | 1.4404 (AISI316L) |
| | Housing | 1.4301 (AISI304) |
| | Sealing | FPM/EPDM/NBR |
| | Male electrical connector | See ordering information |
| | Weight | appr. 50 g |
| | Mounting torque | 25 Nm |

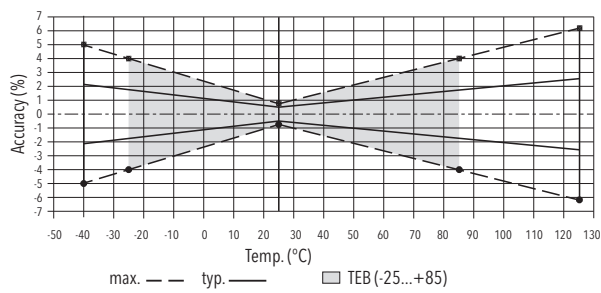
¹⁾ For electrical connections 32 and 35

²⁾ Electrical connection J4 not EMC tested

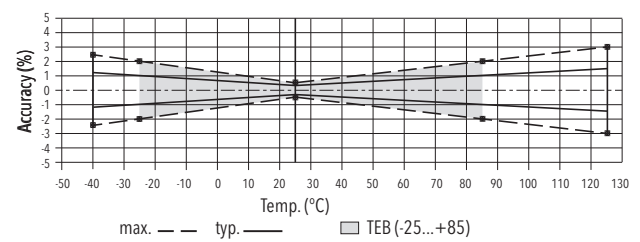
Analogue output

| | | | Sensor 35 accuracy 0.5 % | Sensor 33 accuracy 0.3 % |
|-----------|--|---------------|-----------------------------|-----------------------------|
| Accuracy | TEB @ -25 ... +85°C | [% FS typ.] | ± 1.75 | ± 1.0 |
| | Accuracy @ +25°C | [% FS typ.] | ± 0.5 | ± 0.3 |
| | NLH @ +25°C (BSL) | [% FS typ.] | ± 0.2 | ± 0.2 |
| | TC zero point and span | [% FS/K typ.] | ± 0.03 | ± 0.01 |
| | Long term stability 1 year @ +25°C | [% FS typ.] | ± 0.75 | ± 0.75 |
| Rise time | Typ. 1 ms / 10 ... 90 % nominal pressure | | | |

Measuring accuracy 0.5 %



Measuring accuracy 0.3 %



EC79/2009 Certificate

| | |
|--------------------------------------|---|
| Nominal working pressure (NWP) @15°C | 0.08 ... 70 MPa |
| Maximum allowable working pressure | 0.1 ... 100 MPa |
| Classification | Class 0, Class 1 und Class 2* |
| Pressure codes | 71 ... 88 |
| Process connection | Code 17: Up to NWP 35 MPa Codes 30, 42, 43, 68: Up to NWP 70 MPa |
| Seal | Codes 61 and 63 |

* The transmitters of class 0 were tested. Because the most highly loaded case was tested the results can be applied to the whole product family with pressure ranges from 0.8bar to 700bar.

Maximum load cycles

| Maximum allowed load cycles for measuring ranges ≥ 700 bar | |
|---|---------------------|
| Amplitude for duty, ≤ 5 Hz | Maximum load cycles |
| 0% ... 100% | 1 000 000 |
| 0% ... 110% | 100 000 |
| 0% ... 130% | 10 000 |

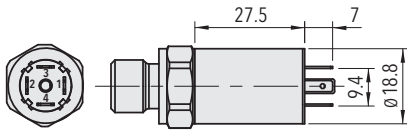
Ordering information: Possible type code combinations for UL-listed versions

| | Combination with UL |
|-----------------------|----------------------------|
| Measuring range | all ranges ≤ 700 bar |
| Sensor | all codes on datasheet |
| Pressure connection | all codes on datasheet |
| Electrical connection | all codes except A1 and J4 |
| Output signal | all codes on datasheet |
| Accessories | all codes except HC |

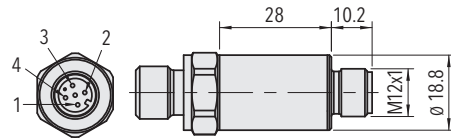
Additional information

| Documents | | |
|-----------|--------------|--|
| | Data sheet | www.trafag.com/H72338 |
| | Instructions | www.trafag.com/H73303 |
| | Flyer | www.trafag.com/H70606 |

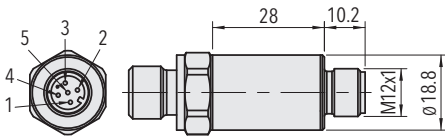
Dimensions



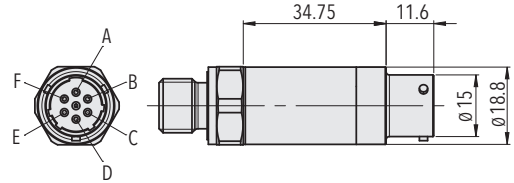
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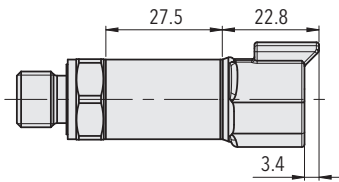
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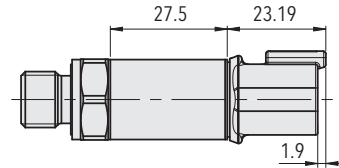
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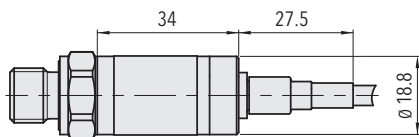
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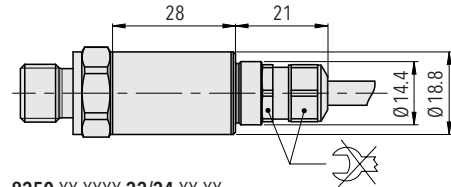
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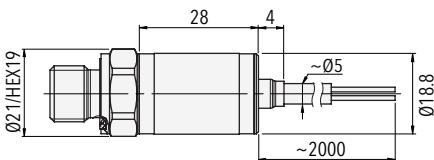
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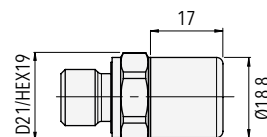
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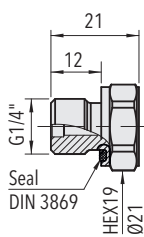
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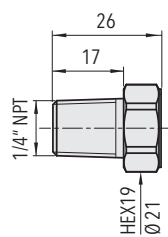
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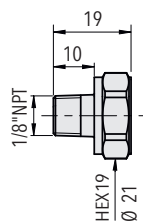
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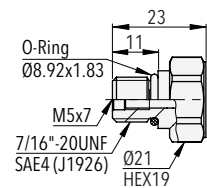
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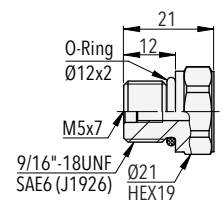
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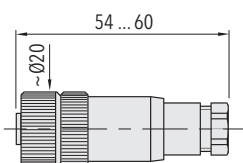
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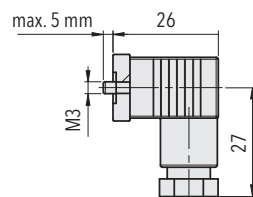
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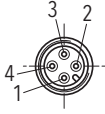
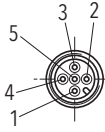

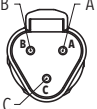

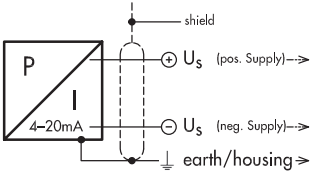
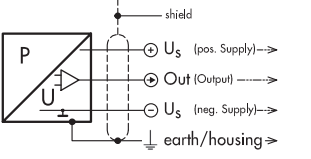


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Electrical connection


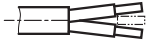

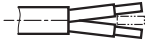
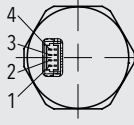
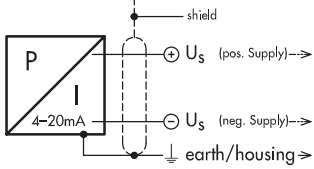
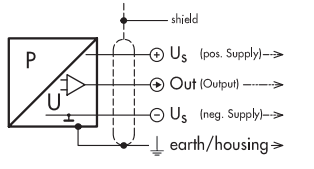
| | | Protection / electrical connection | | | | | | | | | | | | | | | | |
|------------------------------|--|---|-----------|-----------|---|-----------|-----------|-----------|-----------|--|---|---|-----------|---|-----------|---|---|---|
| | | IP65 ^{1) 2)} | | | IP67 ^{1) 2)} | | | | | IP67 ^{1) 2)} | | IP67, IP68 ^{1) 3)} | | IP67, IP68 ^{1) 3)} | | | | |
| Industrial standard | | | | | M12x1 | | | | | MIL-C 26482 | | DT04-3P 3-pole | | DT04-4P 4-pole | | | | |
| Contact distance | | 9.4 mm | | | 4-pole | | | | | 5-pole | | | | | | | | |
| | | 01 | | | 32 | | | | | 35 | | 02 | | D3 | | D4 | | |
| | |  | | |  | | | | |  | |  | |  | |  | | |
| Ambient temperature | | -40°C ... +80°C | | | -40°C ... +125°C | | | | | -40°C ... +125°C | | | | | | | | |
| UL-rated ambient temperature | | -20°C ... +80°C | | | -20°C ... +80°C | | | | | -20°C ... +80°C | | | | | | | | |
| Output signal |  <p>8250.XX.XXXX.XX.19</p> | 90 | 92 | E1 | E6 | F4 | F5 | G2 | G5 | G8 | | | | F0 | G3 | | | |
| | | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 4 | A | A | A | 2 | 2 | |
| | | 1 | 4 | 2 | 3 | 2 | 4 | 2 | 3 | 2/3 | 4 | 2 | 1 | B | B | C | 1 | 3 |
| | | 4 | 3 | 4 | 4 | 4 | 2 | | | 4 | 4 | 5 | E | | | 3 | | |
| |  <p>8250.XX.XXXX.XX.13/14/16/17/20/22/23/24/25/26/28/29</p> | 91 | E3 | E9 | 95 | 96 | E2 | F6 | F7 | G1 | | | F3 | F1 | G4 | | | |
| | | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | A | A | A | 2 | 2 | |
| | | 2 | 1 | 1 | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 4 | B | C | C | 4 | 1 | |
| | | 3 | 4 | 2 | 2 | 3 | 4 | 3 | 2 | 4 | 3 | 3 | C/D | B/D | B | 1 | 3 | |
| | | 4 | 3 | 4 | 4 | 4 | 2 | 2 | 4 | 3 | 5 | E | E | | C | 3 | | |

¹⁾ Provided female electrical plug is mounted according to instructions

²⁾ Ventilation via male electric plug/cable end

³⁾ IP68, 100 mbar, 4h

Electrical connection

| | Protection / electrical connection | | | | |
|------------------------------|--|---|--|---|---|
| | IP67, IP68 ^{1) 2)} | IP67, IP68 ^{1) 2)} | IP67 ¹⁾ | IP40 | IP20 |
| | Cable 22 | Cable 24 | Cable 08 | Cable A1 | JST SH series J4 |
| |  |  |  |  |  |
| Ambient temperature | -5°C ... +60°C | -40°C ... +70°C | -40°C ... +125°C | -5°C ... +60°C | -40°C ... +85°C |
| UL-rated ambient temperature | -5°C ... +60°C | -20°C ... +70°C | -20°C ... +80°C | Not UL-listed | Not UL-listed |
| Output signal |  <p>8250.xx.XXXX.xx.19</p> | | | | |
| |  <p>8250.xx.XXXX.xx.13/14/16/17/20/22/ 23/24/25/26/28/29</p> | | | | |
| | white brown yellow | white brown yellow | red black green | white brown yellow | 1 2 4 |
| | white green brown yellow | white green brown yellow | red white black green | white green brown yellow | 1 3 2 4 |

¹⁾ Ventilation via male electric plug/cable end

²⁾ IP68, 20 bar, 30 min.

