

INDUSTRIAL PRESSURE TRANSMITTER

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The economic pressure transmitter ECT 8472 is based on the tried and true ECT line of transmitters with the wide media temperature range from -25 to 125°C. The enhanced accuracy and the low pressure ranges down to 100 mbar in combination with a comprehensive set of features, materials and options makes the ECT 8473 pressure transmitter an ideal and versatile solution suitable for a wide variety of applications.



Applications

- Machine tools
- Hydraulics
- Water treatment

Features

- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Frontal membrane optional

| Technical Data | | | |
|---------------------|---|----------------------|---|
| Measuring principle | Thick film on ceramic | Accuracy @ 25°C typ. | ± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.) |
| Measuring range | 0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi | Media temperature | -25°C ... 125°C |
| Output signal | 4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom. | | |

06/2014

Data sheet H723261

Subject to change

ECT 0.3% (0.5%, 1.0%) 8473

Ordering information/type code

8473 . 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 ... 0.1 | 2 | 3 | 66 | 0 ... 1.5 | 30 | 45 |
| | 0 ... 0.16 | 2 | 3 | 67 | 0 ... 2 | 30 | 45 | F7 |
| | 0 ... 0.2 | 2 | 3 | 68 | 0 ... 2.5 | 30 | 45 | F8 |
| | 0 ... 0.4 | 2 | 3 | 69 | 0 ... 5 | 30 | 45 | F9 |
| | 0 ... 0.6 | 2 | 3 | 70 | 0 ... 7.5 | 30 | 45 | G0 |
| | 0 ... 1.0 | 2 | 3 | 71 | 0 ... 15 | 30 | 45 | G1 |
| | 0 ... 1.6 | 3.2 | 4.8 | 73 | 0 ... 20 | 40 | 60 | G3 |
| | 0 ... 2.5 | 5 | 7.5 | 75 | 0 ... 30 | 60 | 90 | G5 |
| | 0 ... 4 | 8 | 12 | 76 | 0 ... 50 | 100 | 150 | G6 |
| | 0 ... 6 | 12 | 15 | 77 | 0 ... 100 | 200 | 250 | G7 |
| | 0 ... 10 | 20 | 25 | 78 | 0 ... 150 | 300 | 375 | G8 |
| | 0 ... 16 | 32 | 40 | 79 | 0 ... 250 | 500 | 625 | G9 |
| | 0 ... 25 | 50 | 75 | 80 | 0 ... 400 | 800 | 1200 | H0 |
| | 0 ... 40 | 80 | 100 | 81 | 0 ... 500 | 1000 | 1250 | H1 |
| Sensor | Relative pressure, 1.4305 | | | 54 | Absolute pressure, 1.4305 ^{2) 3)} | | | 84 |
| | Relative pressure, 1.4404/1.4435 ²⁾ | | | 56 | Absolute pressure, 1.4404/1.4435 ^{2) 3)} | | | 86 |
| | Relative pressure, 1.4462 | | | 50 | Absolute pressure, 1.4462 ³⁾ | | | 80 |
| | Relative pressure, Titanium Grade 5 | | | 51 | Absolute pressure, Titanium Grade 5 ³⁾ | | | 81 |
| Pressure connection | G1/4" female | | | | | | | 10 |
| | G1/4" male | | | | | | | 17 |
| | G1/2" male ²⁾ | | | | | | | 21 |
| | 1/4"NPT male ²⁾ | | | | | | | 30 |
| | G3/4" male ^{2) 4)} | | | | | | | 52 |
| Electrical connection | Male electrical plug EN 175301-803-A, Mat. PA | | | | | | | 05 |
| | Male electrical plug M12x1, 5-pole, Mat. PA | | | | | | | 35 |
| | Male electrical plug industrial standard (contact distance 9.4mm) (Mat.: PBT) | | | | | | | 01 |
| | Male electrical plug Packard Metri Pack | | | | | | | 51 |
| | Cable IP67, Mat.: PVC (cable gland PA6-3) ^{5) 6)} | | | | | | | 22 |
| | Cable IP68 max. 3m, Medium +10°C...+35°C, max. 1 bar rel./abs. | | | | | | | 68 |
| Output | Output | Load resistance | I (supply) | U (supply) | | | | |
| | 4 ... 20 mA | (USupply-9V)/ 20mA | | 9 ... 30 VDC | 19 | | | |
| | 0 ... 5 VDC | > 2.5 kΩ | < 10 mA | 10 ... 30 VDC | 14 | | | |
| | 1 ... 6 VDC | > 5.0 kΩ | < 10 mA | 10 ... 30 VDC | 16 | | | |
| | 0 ... 10 VDC | > 5.0 kΩ | < 10 mA | 15 ... 30 VDC | 17 | | | |
| | 0.5 ... 4.5 VDC | > 5.0 kΩ | < 10 mA | 5 VDC ±0.25 V ratiometric | 23 | | | |

| Accessories | | |
|---|--|----|
| O-Ring FKM (-20°C ... +125°C) | | 61 |
| O-Ring CR ≤ 100 bar (-25°C ... +100°C) ⁷⁾ | | 62 |
| O-Ring EPDM (-25°C ... +125°C) | | 63 |
| Pressure peak damping element Ø 1.0 mm (for pressure connections 17 and 30) | | 40 |
| Pressure peak damping element Ø 0.3 mm (for pressure connections 17 and 30) | | 43 |
| Pressure peak damping element Ø 0.5 mm (for pressure connections 17 and 30) | | 45 |
| Female electrical connector EN 175301-803-A (DIN 43650-A) | | 58 |
| Female electrical plug M12x1, 5-pole | | 33 |
| Female electrical connector industrial standard | | 34 |
| Special electrical connection: Pin 1 + , Pin 2 - (Only for output 4...20mA and male electrical plug EN175301-803-A / DIN43650-A) | | 92 |
| Special electrical connection: Pin 1 out , Pin 2 -, Pin 3 + (Only for output 0...5VDC, 1...6VDC, 0...10VDC, 0.5...4.5VDC and male electrical plug EN175301-803-A / DIN43650-A) | | 98 |
| Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (Only for output 0...5VDC, 1...6VDC, 0...10VDC, 0.5...4.5VDC and male electrical plug EN175301-803-A / DIN43650-A) | | 97 |
| Special electrical connection: Pin 1 + , Pin 2 - (Only for male electrical plug Packard Metri Pack 3-pol.) | | 99 |
| Cable length 1.5 m | | 1M |
| Cable length 3.0 m | | 3M |
| Cable length 5.0 m | | 5M |

¹⁾ Extended overpressure as well as customized pressure ranges upon request

²⁾ Please ask us

³⁾ Only for ranges: ≥ 400 mbar or 5 psi

⁴⁾ Not for sensors 54 and 84

⁵⁾ Cable length see accessories

⁶⁾ More materials and cables with venting tubes for low pressure ranges upon request

⁷⁾ Not for pressure connection G3/4" frontal membrane



Identical construction for refrigeration:
Data sheet No. H72323

ECT 0.3% (0.5%, 1.0%) 8473

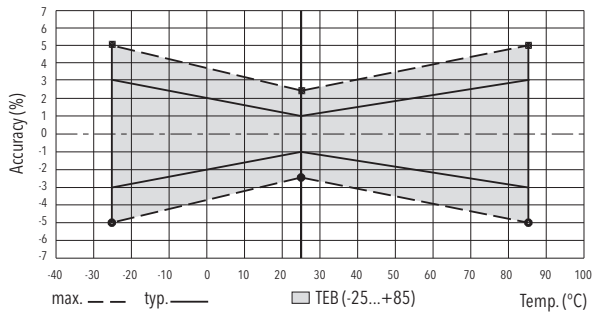
| Specifications | | |
|---------------------------------|-------------------------------|--|
| Electrical Data | Output / supply voltage | 4...20 mA: 24 (9...30) VDC 0...5 VDC: 24 (10...30) VDC 1...6 VDC: 24 (10...30) VDC 0...10 VDC: 24 (15...30) VDC 0.5...4.5 VDC: 5 VDC ratiometric |
| | Rise time | Typ. 1 ms/ 10...90% nominal pressure |
| | Switch-on-delay | Max. 1.5 s |
| Environmental Conditions | Media temperature | -25°C ... 125°C |
| | Ambient temperature | -25°C ... 85°C |
| | Protection ¹⁾ | Min. IP65 |
| | Humidity | Max. 95% relative |
| | Vibration | 4g (10...2000 Hz) |
| | Shock | 50g/ 8 ms |
| EMC Protection | Emission | EN/IEC 61000-6-3 |
| | Immunity | EN/IEC 61000-6-2 |
| Mechanical Data | Sensor | Ceramic, Al ₂ O ₃ (96%) |
| | Housing / Pressure connection | 54/84: 1.4305 (AISI303) 56/86: 1.4404/1.4435 (AISI316L) 50/80: 1.4462 (AISI318LN) 51/81: Titanium Grade 5 |
| | Sealing | FKM 70 Sh CR, EPDM |
| | Male electrical plug | See ordering information |
| | Weight | ~ 110 g |
| | Mounting torque | 15...20 Nm |

¹⁾ Provided female connector is mounted according to instructions

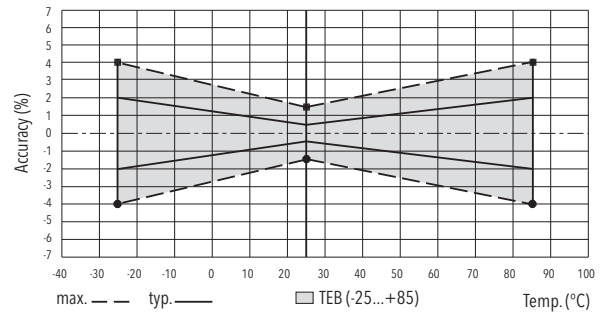
| Accuracy | | | | |
|------------------------------------|---------------|-------------|-----------|------------|
| Pressure measuring range | bar | > 0 ... 0.4 | 0 ... 0.2 | 0 ... 0.1 |
| | psi | > 0 ... 5 | 0 ... 0.4 | 0 ... 0.16 |
| | | | 0 ... 2.5 | 0 ... 1.5 |
| | | | 0 ... 5 | 0 ... 2 |
| TEB @ -25...+85°C | [% FS typ.] | ± 1.0 | ± 2.0 | ± 3.0 |
| Accuracy @ +25°C | [% FS typ.] | ± 0.3 | ± 0.5 | ± 1.0 |
| NLH @ +25°C (BSL) | [% FS typ.] | ± 0.2 | ± 0.3 | ± 0.3 |
| TC zero point and span | [% FS/K typ.] | ± 0.02 | ± 0.02 | ± 0.02 |
| Long term stability 1 year @ +25°C | [% FS typ.] | ± 0.2 | ± 0.2 | ± 0.2 |

| Additional information | | |
|------------------------|--------------|--|
| Documents | Data sheet | www.trafag.com/H72326 |
| | Instructions | www.trafag.com/H73324 |
| | Flyer | www.trafag.com/H70662 |

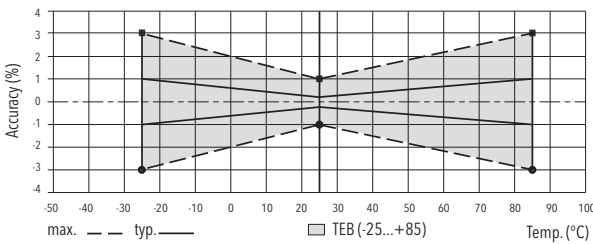
Measuring accuracy 1.0%



Measuring accuracy 0.5%



Measuring accuracy 0.3%



Electrical Connection

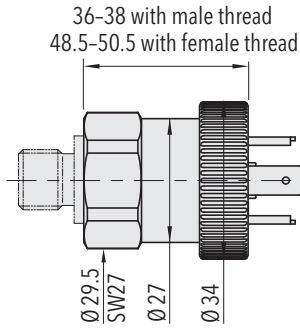
| | | Protection / electrical connection | | | | |
|---------------|---|--|-------------------------------|-------------------------------|--------------------------------|--|
| | | IP65*) | IP67/IP68 max. 3m | IP67*) | IP67*) | IP65 |
| | | Industrial standard EN175301-803A **) | Cable**) 22/68 | M12x1 **) 35 | Packet Metri Pak **) 51 | Industrial standard EN175301-803A **) 01 |
| | | | | | | |
| Output signal | <p>8473.xx.xxxx.xx.19</p> | Standard 2 1 ⊕ | 92 1 2 ⊕ | white brown ⊕ | 99 4 1 5 | 1 2 3 ⊕ |
| | <p>8473.xx.xxxx.xx.14/16/17/23</p> | Standard 2 3 1 ⊕ | 98 3 1 2 ⊕ | 97 1 3 2 ⊕ | white green brown ⊕ | 99 2 4 3 5 |

*) Provided female connector is mounted according to instructions

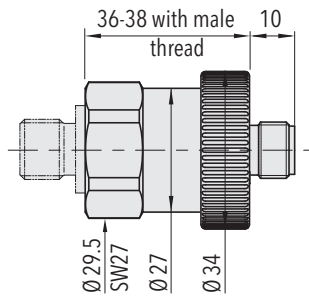
**) Ventilation via male electric plug/cable end

***) Only cable versions or female plug with shield connection

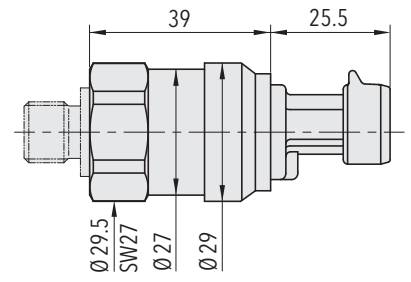
Dimensions



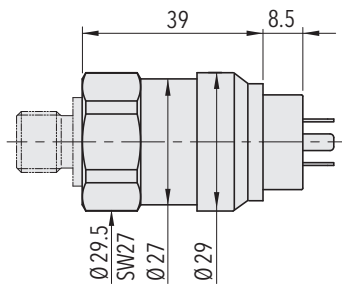
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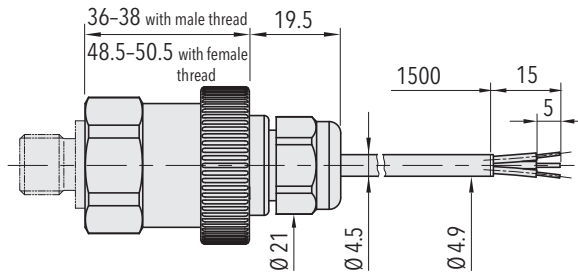
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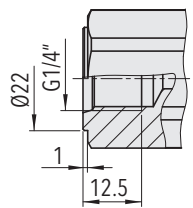
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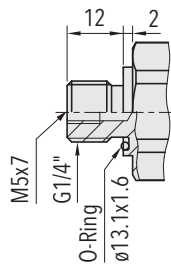
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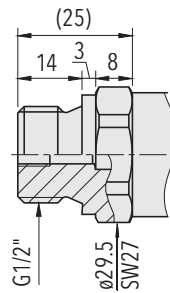
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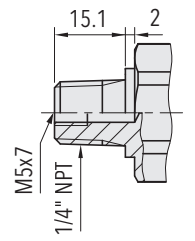
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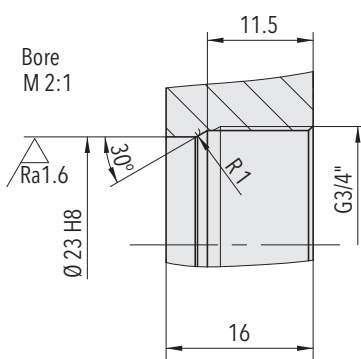
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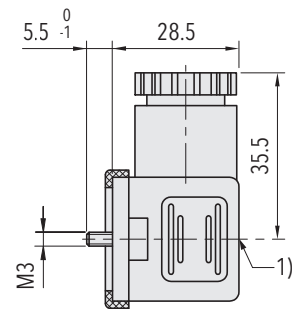
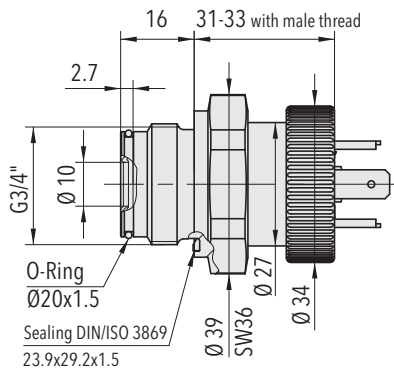
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8473.XX.XX30.XX.XX.XX

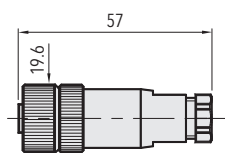


8473.XX.XX52.XX.XX.XX

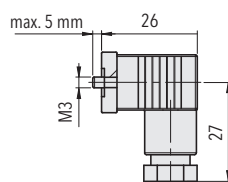


1) Tightening torque 50...60Ncm

8473.XX.XXXX.XX.XX.58



8473.XX.XXXX.XX.XX.33



8473.XX.XXXX.XX.XX.34