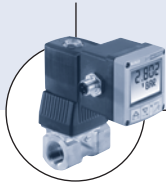


Pressure transmitter



- Ceramic measurement cell
- Two-wire version
- Compact, stable construction for the highest operational reliability
- Media stop system if bursting pressure exceeded

Type 8314 can be combined with...



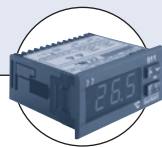
Type 8624

PI controller



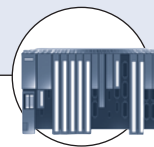
Type 2712

Continuous control valve



Type 0911

Process indicator



PLC

The compact pressure transmitter Type 8314 meets the highest requirements with regard to mechanical loading, EMC characteristics and operational reliability and is particularly suitable for demanding industrial applications.

| General data | |
|-------------------------------|---|
| Body material | Stainless steel 1.4305 AISI 303 |
| Wetted parts materials | Ceramics (Al ₂ O ₃), stainless steel 1.4305 (1.4404 AISI 316L on request), FKM seal, PPS |
| Electrical connection | M12 x 1 plug |
| Process connection | G 1/4" external to DIN 3852 Form E |
| Installation | as required, preferably with pressure connection in downward position |
| Measurement principle | Ceramic technology |
| Measurement procedure | Relative pressure measurement |
| Measuring range | 0 up to 1, 4, 6, 10, 16, 40 or 100 bar |
| Overload | 3 x full scale at 0 ... 4 bar 2.5 x full scale at 6 ... 100 bar |
| Bursting pressure | 3 x full scale at 0 ... 4 bar 2.5 x full scale at 6 ... 100 bar patented media stop system to prevent escape of media if the bursting pressure range is exceeded (≥ 4 bar nominal pressure) |
| Fluid temperature | -15 up to +125°C |
| Accuracy | Sum of linearity, hysteresis and reproductibility: $\leq 0.3\%$ of F.S.* Balancing accuracy of zero point and full scale: $\leq 0.3\%$ of F.S.* |
| Long term stability | 0.5% of F.S. / 10 year |
| Dynamic response | Suitable for static and dynamic measurements response time < 2 ms, typ. 1ms |

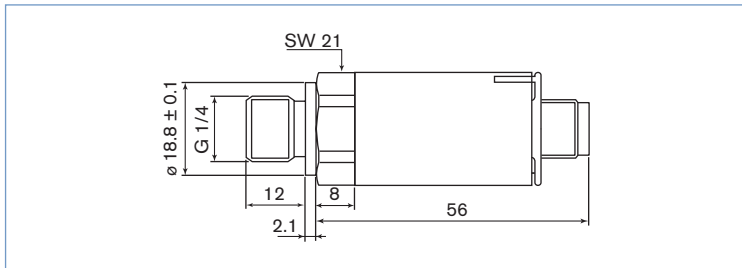
| Electrical data | |
|------------------------------------|--|
| Power supply (U) | 8 up to 33 V DC, unregulated |
| Output signal (two-wire) | Standard 4 up to 20 mA signal |
| Load in Ω | $< (U - 8 V) / 0.02 A$ |
| Protected connection | Short-circuit proof & protected against reverse polarity |

| Environment | |
|------------------------------|--|
| Ambient temperature | -15 up to + 85°C |
| Temperat. coefficient | $< 0.015\%$ of F.S.* / C° (Coef. zero point and sensitivity) |

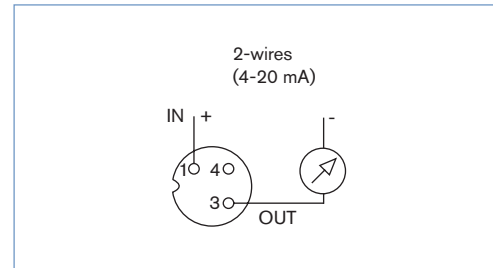
| Standard and approvals | |
|-------------------------------|---------------------------------|
| Protection class | IP67 |
| Interference emission | Acc. to EN 50081-1 and EN 55022 |
| Interference stability | Acc. to EN 50082-2 |

* F.S. = full scale

Dimensions [mm]



Electrical connections



Ordering chart transmitter Type 8314 and accessories

Transmitter

| Process connection | Pressure range [bar] | Item no. |
|--------------------|----------------------|----------|
| G 1/4 | 0 to 1 | 550 364 |
| | 0 to 4 | 550 365 |
| | 0 to 6 | 552 954 |
| | 0 to 10 | 550 366 |
| | 0 to 16 | 552 955 |
| | 0 to 40 | 550 367 |
| | 0 to 100 | 550 368 |

i Further versions on request

- Pressure**
Other measuring ranges
- Port connection**
NPT 1/4"
- Electrical connection**
connectors
- Additional**
electrical outputs

Accessories

| Description | Item no. |
|---|----------|
| 5-pin M12 female cable connector with plastic threaded locking ring | 917 116 |
| 5-pin M12 female connector moulded on cable (2 m, shielded) | 438 680 |

EMC acc. to harmonised standards for interference resistance EN 50082-2, IEC 61000-6-2 and EN 61326-1, interference radiation EN 50081-1, EN 55022, CISPR 22, EN 61326-1

| Interference stability | Test Norm / Test condition | Effects |
|--|---|-------------|
| Electro-static discharge ESD | EN 61000-4-2 15 kV air, 89 kV contact discharge | No effects |
| High frequency electro-magnetic irradiation | EN 61000-4-3 200 V/m, 80 ... 100 MHz | No effects |
| Line related high frequency coupling | EN 61000-4-6 30 V, 0.15 ... 80 MHz | No effects |
| Fast transients (Bursts) | EN 61000-4-4 / 4 kV | No effects |
| Magnetic fields | EN 61000-4-8 / 30 A/m, 50 Hz | No effects |
| Surge voltage | EN 61000-4-5 / Line-Line, Line-Case 500V, 12 Ohm, 9 µF Radiometric Line-Line 500V, 2 Ohm, 18 µF | No failure |
| Insulation voltage | 500 V DC (optional 1000 V DC) 350 V AC (optional 700 V AC) | No effects |
| Interference transmitted | Test standard / Test condition | Effects |
| Line - related interference | EN 55022 | |
| Interference | 0.15 ... 30 MHz | No emission |
| Radiation from body | 30 ... 1000 MHz, 10 meter | No emission |
| Test / Admissions | | |
| Shock acc. IEC 28-2-27 | 75G, 11 ms half sine wave, all three directions. Free fall from 1 m on concrete (6x) | |
| Constant shock acc. IEC 68-2-29 | 40G for 6 ms, 1000 x all three directions | |
| Vibration acc. IEC 68-2-6 | 20G, 9...200 Hz, 2...9 Hz with ampl. +/- 15 mm, 1 Octave/min all three directions, 50 constant load | |

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In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

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