

Submersible level transmitters for corrosive media

ATM/NC



Version: 25.06.2014

Technical Specifications

Pressure measuring range (mH₂O)

| | 1 ... 5 | > 5 ... 20 | > 20 ... 250 |
|-------------------------------------|----------------------|----------------------|-----------------------|
| Overpressure | 3 bar | 3 x FS (≥ 3 bar) | 3 x FS |
| Burst pressure | > 200 bar | > 200 bar | > 200 bar |
| Accuracy, (1), (± % FS) | ≤ 2.0 | ≤ 1.0 | ≤ 0.5 |
| Accuracy, (1), (3), (± % FS) | < 0.5% | < 0.5% | < 0.5% |
| Thermal shift, (± % FS/°C) | | | |
| Zero point 0...70°C | ≤ 0.06 | ≤ 0.03 | ≤ 0.015 |
| Zero point -25...85°C | ≤ 0.08 | ≤ 0.04 | ≤ 0.02 |
| Span 0...70°C | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 |
| Span -25...85°C | ≤ 0.02 | ≤ 0.02 | ≤ 0.02 |
| Long term stability, (2) | < 0.5% FS / < 4 mbar | < 0.2% FS / < 4 mbar | < 0.1% FS / < 0.2% FS |

(1) Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature

(2) 1 year (typ. / max.)

(3) Only if diaphragm is made in titanium

Temperature range

| | |
|------------------------------|-------------|
| Operating temperature | -5...80 °C |
| Process temperature | -5...80 °C |
| Storage temperature | -10...80 °C |

Electrical specifications

| | 4 ... 20 mA | 0 ... 20 mA | 0 ... 5 V / 0 ... 10 V |
|----------------------------|-------------|-------------|------------------------|
| Power supply | 9...33 V DC | 9...33 V DC | 15...30 V DC |
| Supply influence | < 0.1% FS | < 0.1% FS | < 0.1% FS |
| Current consumption | | | 3 mA |
| Circuit diagram | | | |
| Load resistance | | | $R_L > 10k\Omega$ |
| Load influence | < 0.1% FS | < 0.1% FS | < 0.1% FS |

Qualifications

| | Description | Level | Typical interferences |
|---------------------|-------------------------|------------------------------|--------------------------------|
| EN 61000-4-2 | Electrostatic discharge | 4 kV contact 8 kV air | |
| EN 61000-4-3 | Irradiated RF | 10V/m (0.08...1 GHz) | Radio sets, wireless phones |
| EN 61000-4-4 | Transients (burst) | 2 kV | Motors, valves |
| EN 61000-4-6 | Conducted RF | 10 V (0.15...80 MHz, 3 s) | Frequency converters |

Physical specifications

| Materials | |
|------------------|--|
| Transducer | Stainless steel (316L / 1.4435) with teflon protection, titanium (Gr. 2) |
| Housing | PVDF |
| Seals | Viton (Standard), EPDM, Kalrez |
| Cable | PUR, FEP, PE |

Equipment

Overview

| 10.00.0091 | Accessories overview |
|------------|----------------------|

Additional documents

Operating and safety instructions

| | Article number |
|------------|----------------|
| 10.88.0092 | DMM029 |

Ordering information

| | | X. XXXX. | XXXX. | XX. | XXX |
|---------------------------------|---|----------|-------|-----|-----|
| Type | | | | | |
| | ATM/NC | 30 | | | |
| Pressure type | | | | | |
| | Gauge | 1 | | | |
| | Absolute (vacuum) | 2 | | | |
| Pressure measuring range | | | | | |
| | 100 mbar...25 bar | | XX | | |
| Process connection | | | | | |
| | Open, TD in titanium (Fig. 1) | | 90 | | |
| | Open, TD 316L with FEP foil (Fig. 1) | | 91 | | |
| Electrical connection | | | | | |
| | PE cable, IP 68, black (2), (3) | | | 13 | |
| | PUR cable, IP 68, black (2), (3) | | | 15 | |
| | FEP cable, IP 68, black (2) | | | 21 | |
| Output signal | | | | | |
| | 0... 5 V DC | | | 46 | |
| | 0...10 V DC | | | 47 | |
| | 0...20 mA | | | 00 | |
| | 4...20 mA | | | 05 | |
| | 4...20mA with surge protection | | | 08 | |
| | 0...10 V DC with surge protection | | | 49 | |
| | 0...5 V DC with surge protection | | | 50 | |
| | Customized | | | 99 | |
| Accuracy | | | | | |
| | $\leq \pm 2.0$ % FS for $p < 500$ mbar (4) | | | | 6 |
| | $\leq \pm 1.0$ % FS for $p \leq 2$ bar | | | | 5 |
| | $\leq \pm 0.5$ % FS for $p > 2$ bar | | | | 0 |
| Temperature range | | | | | |
| | -5...50 °C compensated (allowed process temperature: -5...50 °C) | | | | 4 |
| | -5...80 °C compensated (allowed process temperature: -5...80 °C), (5) | | | | 5 |
| Option 1 | | | | | |
| Option 2 | | | | | |
| Option 3 | | | | | |
| | Seals: Viton (standard) | | | | U |
| | Seals: EPDM | | | | S |
| | Seals: Kalrez, (6) | | | | T |
| | Protective cap in brass | | | | W |
| | Protective cap in POM | | | | W |
| | Humidity filter element for gauge versions (only for PUR and PE cable) | | | | Z |

(1) mH2O, mWS, mWC etc. available

(2) Please specify the required cable length and medium

(3) For operating temperature > 50°C, PE or FEP cable must be used

(4) $< \pm 0.5$ % FS if diaphragm is made in titanium

(5) Only if diaphragm is made in titanium

(6) Available only with FEP cable

Technical drawings

Dimensions

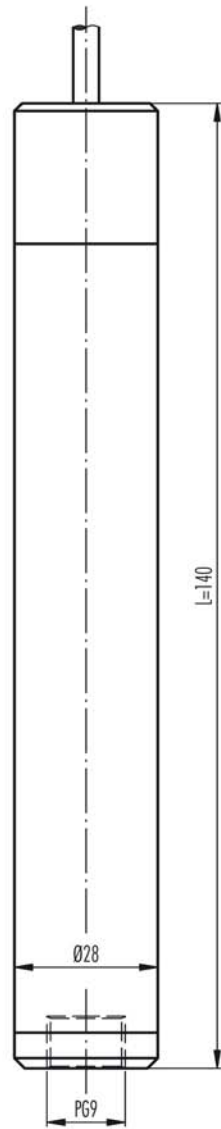


Fig. 1

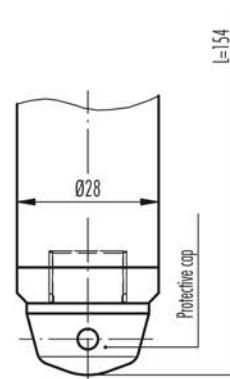


Fig. 2

| Colour | 2-Wire | 3-Wire |
|--------|--------|--------|
| white | +Vin | +Vin |
| yellow | Pout | GND |
| brown | | Pout |

Specifications may change without notice.

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