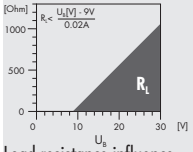
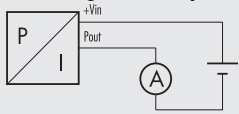
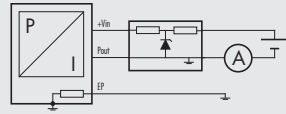
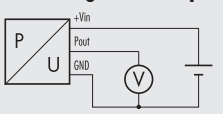




## Specifications ATM.ECO/N and ATM.ECO/N/Ex

| Pressure range                         | [bar]            | 0.1 ... 0.5                | > 0.5 ... 2                | > 2 ... 25                 |
|--|------------------|----------------------------|----------------------------|----------------------------|
| <b>Overpressure</b>                    |                  | 3 bar                      | 3 x FS<br>(min. 3 bar)     | 3 x FS                     |
| <b>Burst pressure</b>                  | [bar]            | ≥ 200                      | ≥ 200                      | ≥ 200                      |
| <b>Total Error Band</b> <sup>1)</sup>  | [± % FS]         |                            |                            |                            |
| ATM.ECO/N (typ./max.)                  | -5...50°C        | 1.0/1.5                    | 0.7/1.0                    | 0.7/1.0                    |
| (typ./max.)                            | -5...80°C        | 2.0/2.5                    | 1.0/1.5                    | 1.0/1.5                    |
| <b>Accuracy</b> <sup>2)</sup>          | [± % FS]         | ≤ 0.25<br>(optional ≤ 0.1) | ≤ 0.25<br>(optional ≤ 0.1) | ≤ 0.25<br>(optional ≤ 0.1) |
| <b>Medium temperature</b>              | -5...80°C        |                            |                            |                            |
| <b>Storage temperature</b>             | -10...80°C       |                            |                            |                            |
| <b>Response time</b>                   | <1ms/10...90 %FS |                            |                            |                            |
| <b>Long term stability (typ./max.)</b> |                  | < 0.5 %FS / < 4 mbar       | < 0.2 %FS / < 4 mbar       | < 0.1 %FS / < 0.2 %FS      |

### Electrical output

| Type ATM.ECO/N  | 4...20mA   | Type ATM.ECO/N/Ex   | 4...20mA   | Type ATM.ECO/N   | 0...5V/0...10V | <b>Load resistance</b><br> |
|---|------------|---|------------|--|----------------|---|
| <b>Supply voltage</b>   | 9...33 VDC | <b>Supply voltage</b>   | 9...30 VDC | <b>Supply voltage</b>  | 12...30 VDC    |   |
| Supply voltage influence  | < 0.05 %FS | Supply voltage influence  | < 0.05 %FS | Supply voltage influence   | < 0.05 %FS     |   |
| <b>Circuit diagram (example)</b>  |            | <b>Circuit diagram (example)</b>  |            | <b>Circuit diagram (example)</b>   |                |   |
|  |            |  |            |  |                |   |

### Ex-Approval gas / dust

|  |                  |   |           |           |
|--|------------------|---|-----------|-----------|
| <b>Approval</b>  | SEV 09 ATEX 0108 | II 1G Ex ia IIB/IIC T3...T6<br>II 1D Ex iaD 20 IP6x T145...T70°C  |           |           |
| <b>Standards</b>   |                  | EN 60079-0 / EN 60079-11 (gas)<br>EN 61241-0 / EN 61241-11 (dust) |           |           |
| <b>Temperature class</b>   |                  | <b>T6</b>   | <b>T4</b> | <b>T3</b> |
| Ambient temperature Ta   | [°C]             | -5...50   | -5...80   | -5...80   |
| Process temperature  | [°C]             | -5...50   | -5...80   | -5...80   |
| Without any information about temperature class the transmitter will be delivered for T6.<br>For detailed Ex-specifications see the assembly instruction manual. |                  |   |           |           |

### Materials

|   |  |
|---|--|
| <b>Process connection, diaphragm, housing</b> | Stainless steel 1.4435 or titanium (option)      |
| <b>Seals</b>                                  | Viton (other materials see ordering information) |

### Qualification

|                            | Standard                  | Level  | Typical interferences       |
|----------------------------|---------------------------|--|-----------------------------|
| <b>Mechanical charges:</b> |                           |  |                             |
| EN 60068-2-6               | Vibration                 | 10g (4...2000 Hz, deflection ± 10 mmp)           |                             |
| EN 60068-2-27              | Shock                     | 100g (impulse duration 6 ms)                     |                             |
| <b>Emission:</b>           |                           |  |                             |
| EN 55022                   | Emission, class B         | < 30 dBμV/m (0.03...1 GHz)                       |                             |
| <b>Immunity:</b>           |                           |  |                             |
| EN 61000-4-2               | Generic immunity          | 8 kV contact, 15 kV air                          |                             |
| EN 61000-4-3               | Electrostatic discharge   | 10 V/m, 0.08...2.7 GHz,<br>80% AM 1 kHz, 3 s     | Cellular phones, radio sets |
| EN 61000-4-4               | Fast transients (burst)   | 4kV  | Motors, valves              |
| EN 61000-4-5               | Surge                     | Line-Line: 0.5 kV/42 Ω,<br>Line-Earth: 1 kV/42 Ω | Lightning strikes           |
| EN 61000-4-6               | Conducted radio-frequency | 10 V, 0.15...80 MHz, 80% AM 1kHz, 3s             | Cellular phones, radio sets |

<sup>1)</sup> Total Error Band incl. accuracy, temperature influences, temperature error zero and span, hysteresis and repeatability by max. signal span (16mA)

<sup>2)</sup> Zero based non-conformity according to DIN16086, including hysteresis and repeatability by ambient temperature

## Ordering information

ATM.ECO/N  
ATM.ECO/N/Ex

X . XXXX . XXXX . XX . XXX

|  |   |       |    |    |    |   |
|--|---|-------|----|----|----|---|
| <b>Type</b>  | ATM.ECO/N   |       |    |    |    |   |
|  | ATM.ECO/N/Ex  |       |    |    |    |   |
| <b>Pressure type</b>                               | Gauge   | 1     |    |    |    |   |
|  | Absolute (vacuum)   | 2     |    |    |    |   |
| <b>Pressure range</b>                              | Any pressure ranges between 0...1mH <sub>2</sub> O and 0...250mH <sub>2</sub> O available |       | XX |    |    |   |
| <b>Version</b>                                     | Closed (Fig. 1)   |       |    | 55 |    |   |
|  | Open (Fig. 2)   |       |    | 56 |    |   |
|  | G 1/4 M (Fig. 3)  |       |    | 11 |    |   |
|  | G 1/2 M (Fig. 3)  |       |    | 13 |    |   |
|  | Special versions available  |       |    | XX |    |   |
| <b>Electrical connection</b>                       | Connectable version <sup>1)</sup> (Fig. 4)  | IP 68 |    | 07 |    |   |
|  | PE cable <sup>2) 4)</sup>   | IP 68 |    | 13 |    |   |
|  | PUR cable <sup>2) 3)</sup>  | IP 68 |    | 15 |    |   |
|  | Teflon cable <sup>2)</sup>  | IP 68 |    | 21 |    |   |
|  | PUR cable, blue <sup>2) 3) 5)</sup>   | IP 68 |    | 17 |    |   |
|  | Teflon cable, blue <sup>2) 5)</sup>   | IP 68 |    | 22 |    |   |
| <b>Output signal</b>                               | 4...20mA  |       |    |    | 05 |   |
|  | 0...5V DC (no Ex version)   |       |    |    | 46 |   |
|  | 0...10V DC (no Ex version)  |       |    |    | 47 |   |
| <b>Accuracy</b>                                    | ≤ ± 0.25 % FS   |       |    |    |    | 1 |
|  | ≤ ± 0.1 % FS  |       |    |    |    | 2 |
| <b>Temperature range<sup>6)</sup></b>              | -5...50°C compensated (allowed medium temperature -5...50°C)                              |       |    |    |    | 4 |
|  | -5...80°C compensated (allowed medium temperature -5...80°C)                              |       |    |    |    | 5 |
| <b>Temperature class<sup>7)</sup> (Ex version)</b> | T6 (Ta: -5...50°C) -5...50°C compensated (allowed medium temperature -5...50°C)           |       |    |    |    | 3 |
|  | T4 (Ta: -5...80°C) -5...80°C compensated (allowed medium temperature -5...80°C)           |       |    |    |    | 5 |
| <b>Options</b>                                     | Version titanium  |       |    |    |    | K |
|  | Ballast weight  |       |    |    |    | B |
|  | Special oil filling in the TD: ASEOL Food   |       |    |    |    | G |
|  | Halocarbon  |       |    |    |    | H |
|  | Seals: Viton (standard)   |       |    |    |    | U |
|  | EPDM  |       |    |    |    | S |
|  | Kalrez  |       |    |    |    | T |

<sup>1)</sup> Connector with required cable has to be ordered separately (KART100)

<sup>2)</sup> Please specify the required cable length

<sup>3)</sup> For medium temperature > 50°C a PE or teflon cable must be used

<sup>4)</sup> Food approved

<sup>5)</sup> Cable types ATM.ECO/N/Ex

<sup>6)</sup> Temperature range for ATM.ECO/N

<sup>7)</sup> Temperature class for ATM.ECO/N/Ex

## Dimensions

Fig. 1 Closed version

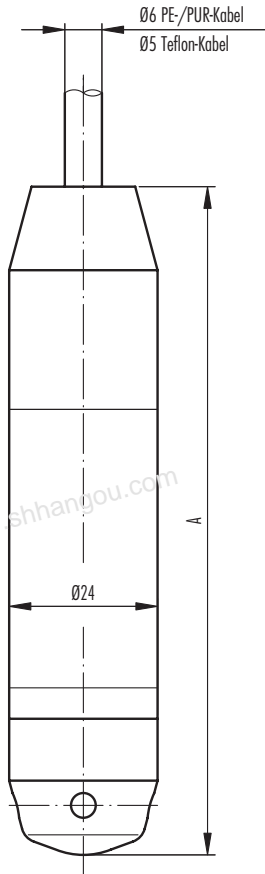


Fig. 2 Open version

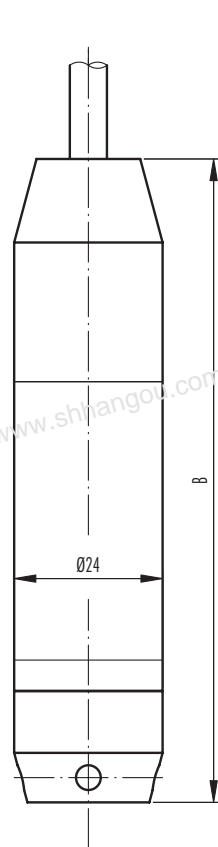


Fig. 3 With process connection

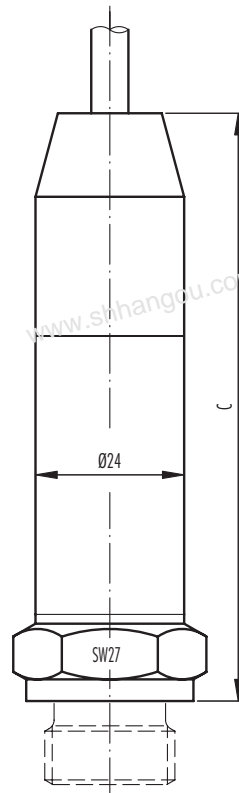
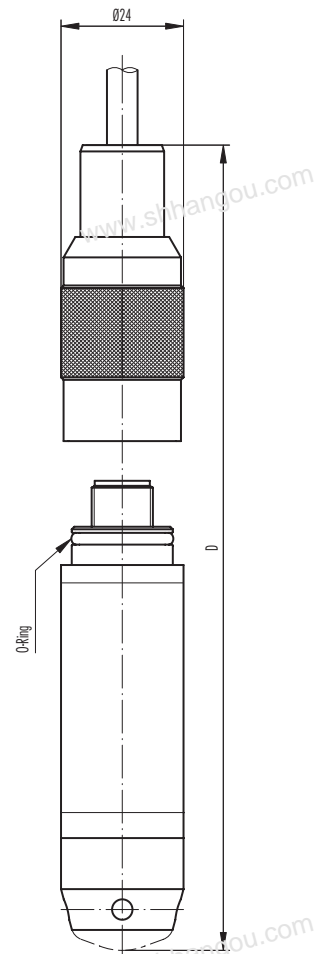


Fig. 4 Electrical connection, connectable



|                        | A [mm] | B [mm] | C [mm]      | D [mm] | Weight [g] |
|------------------------|--------|--------|-------------|--------|------------|
| without ballast weight | 88     | 84     | on request* | 119*   | ca. 145    |
| with ballast weight    | 175    | 171    | on request* | 201*   | ca. 405    |

\*C: Depending on process connection

| Colour | 2-wire       | 3-wire |
|--------|--------------|--------|
| white  | +Vin         | +Vin   |
| yellow | Pout         | GND    |
| brown  |              | Pout   |
| grey   | EP (only Ex) |        |

Specifications may change without notice.

10.00.0308.A

09/2009

| Switzerland  | Germany  | Italy  | France  | Great Britain  |
|--|--|--|---|--|
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