Pressure sensors for water-based media

Applications
Based on the tried-and-tested pressure sensors, ifm presents a version for special applications. The new PE2 family of pressure sensors are ideally suited for water-based media due to the materials used for their wetted parts (ceramics, EPDM, stainless steel).

Further applications are ammonia circuits in refrigerating technology and monitoring of cleaning agents and other secondary processes in the food industry. The PE2 family is not suitable for oils and oil-based media due to its EPDM cell sealing.

Robust measuring cell
The ceramic measuring cell ensures excellent overload protection even in case of cavitation, and a high resistance to media.

Wetted parts: ceramics, EPDM and high-grade stainless steel
DNV-GL approval for maritime applications
Robust ceramic measuring cell
Rotatable process connection
Programmable red/green display
Operating voltage [V DC] 18...30
Current rating [mA] 250
Accuracy / deviation (in % of the span) turn down 1:1
Switch point accuracy < ± 0.4
Linearity error < ± 0.25 (BFSL)
< ± 0.5 (LS)
Repeatability < ± 0.1
Long-term stability < ± 0.05
Temperature coefficient (TEMPCO) in the temperature range -25...80 °C (in % of the span per 10 K)
Greatest TEMPCO of zero < ± 0.2
Greatest TEMPCO of the span < ± 0.2
Switching frequency [Hz] ≤ 500
Medium temperature [°C] -25...80
Shock resistance [g] 50
Vibration resistance [g] 20
Materials in contact with the medium high-grade stainless steel (1.4404 / 316L) Al2O3 (ceramics), EPDM
Communication interface IO-Link 1.1 COM2 slave; 38.4 kbaud

**Accessories**

<table>
<thead>
<tr>
<th>Design</th>
<th>Description</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPDM seal</td>
<td>for external thread</td>
<td>E30442</td>
</tr>
<tr>
<td>Angle bracket</td>
<td></td>
<td>E30421</td>
</tr>
<tr>
<td>Protective cover</td>
<td></td>
<td>E30420</td>
</tr>
<tr>
<td>Ventilation cover</td>
<td></td>
<td>E30432</td>
</tr>
<tr>
<td>USB IO-Link master</td>
<td>parameter setting and analysis of units</td>
<td>E30390</td>
</tr>
<tr>
<td>LR DEVICE</td>
<td>supplied on USB flash drive</td>
<td>QA0011</td>
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</table>

**Connection technology**

<table>
<thead>
<tr>
<th>Design</th>
<th>Description</th>
<th>Order no.</th>
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</thead>
<tbody>
<tr>
<td>Socket, M12,</td>
<td>2 m black, PUR cable</td>
<td>EVC001</td>
</tr>
<tr>
<td>Socket, M12,</td>
<td>5 m black, PUR cable</td>
<td>EVC002</td>
</tr>
<tr>
<td>Socket, M12,</td>
<td>2 m black, PUR cable</td>
<td>EVC004</td>
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<tr>
<td>Socket, M12,</td>
<td>5 m black, PUR cable</td>
<td>EVC005</td>
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</tbody>
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1) 4-digit alphanumeric display / alternating indication (red and green)
2) LEDs (display unit / switching status)
3) programming button
4) upper part of the housing can be rotated by 345°

**Dimensions**

Example PE2091

**Wiring diagram**

OUT1: switching output or IO-Link
OUT2: switching output
Colours to DIN EN 60947-5-6