Are you looking for space-saving flow and temperature measurement technology? Do you prefer to use cost-efficient devices in your plants? Do you need to follow specifications or regulatory requirements for process monitoring at numerous measuring points? Yes? Then Picomag is the ideal device for your application:

- Robust compact design
- Secure commissioning and configuration via Bluetooth
- Cost-efficient operation without maintenance
- Efficient online ordering

Click to navigate
Product overview

Picomag is available with various nominal diameters. The compact size also makes it perfect for installation in skids.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Max. flow rate</th>
<th>Installation length</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN 15 (½&quot;&quot;)</td>
<td>25 l/min (6.6 gal/min)</td>
<td>110 mm (4.33 in)</td>
<td>External thread G½&quot;</td>
</tr>
<tr>
<td>DN 20 (¾&quot;&quot;)</td>
<td>50 l/min (13.2 gal/min)</td>
<td>110 mm (4.33 in)</td>
<td>External thread G¾&quot;</td>
</tr>
<tr>
<td>DN 25 (1&quot;&quot;)</td>
<td>100 l/min (24.6 gal/min)</td>
<td>110 mm (4.33 in)</td>
<td>External thread G1&quot;</td>
</tr>
</tbody>
</table>
Product overview

Picomag is available with various nominal diameters. The compact size also makes it perfect for installation in skids.

<table>
<thead>
<tr>
<th>Small</th>
<th>Large</th>
<th>Accessories</th>
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</thead>
<tbody>
<tr>
<td>DN 15 to 25 (½ to 1&quot;)</td>
<td>DN 50 (2&quot;)</td>
<td></td>
</tr>
</tbody>
</table>

Click to navigate

DN 50 (2")
Max. flow rate: 750 l/min (198 gal/min)
Installation length: 200 mm (7.87 in)
Connection: External thread G2"
Picomag is available with various nominal diameters. The compact size also makes it perfect for installation in skids.

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</table>

- **G"–R"**
- **G"–G" internal thread**
- **G"–Tri-clamp**
- **G"–NPT"**
- **On request**
- **G"–Victaulic**
- **Ground terminal**
- **M12 Cable**
- **Seal**
Auto-rotatable display field

The display field rotates automatically depending on the installation position and flow direction. This means that the values are always easy to read.
SmartBlue App

For commissioning in the field

The app allows for configuration as well as comprehensive access to device data. The connection is established via Bluetooth.

- Simple and fast navigation through device and diagnostic functions
- Wireless configuration/data retrieval:
  - Configuration of display, outputs, flow direction, units, etc.
  - Requesting diagnostics messages, etc.
- Available for Android and iOS
- Range: up to 10 meters

SmartBlue App (iOS)

SmartBlue App (Android)

How to
IO-Link

For seamless integration into your plant

Thanks to the IO-Link connection, Picomag can be integrated seamlessly into any communication and process automation system:

- Compatible with all standard fieldbus systems
- Comprehensive data access via the control room
- Simple parameterization without additional tools
- Automatic configuration after device replacement
- Easy wiring
- Industry 4.0 ready

How to
Adapter sets and cable connectors
For easy installation and electrical connection

In addition to the standard thread connection, there are other adapter sets that can be used to install Picomag in pipes with a wide variety of process connections.

1. Pipe
2. Seal (not included in delivery)
3. Adapter (available adapters)
4. Seal (included in delivery)
5. Measuring device connection
Adapter sets and cable connectors

For easy installation and electrical connection

The cable connector (M12, A-coded) allows Picomag to be connected to your process control system quickly and easily.

A = Connection socket
B = Connection plug
1 = Supply voltage L+
   (DC 19 to 30 V, max. 2 W)
2 = Output 2 (configurable)
3 = Supply voltage L–
4 = Output 1 (configurable)
Application areas and examples

Picomag enables a reliable flow/temperature measurement of all conductive liquids

Example 1 – Metal industry
Measuring and monitoring cooling water (industrial ovens)

Example 2 – Food industry
Monitoring cold/warm water (process cooling/heating)

Example 3 – Beverage industry
Measuring and monitoring rinsing water (cleaning containers)

Application and measurement task
Various industrial ovens are cooled using a cooling circuit with water flowing through multiple cooling lines.

- Nominal diameters: DN 40 to 50 (1½ to 2")
- Nominal pressure: max. 20 bar (290 psi)
- Temperature of water discharge: 40 to 48 °C (104 to 118 °F)

Solution and advantages with Picomag

- Picomag can be used to monitor flow and water temperature simultaneously:
  - Flow → Leak detection
  - Temperature → Cooling performance monitoring
- Compact design → Cooling lines can be installed close together
Application areas and examples

Picomag enables a reliable flow/temperature measurement of all conductive liquids

Example 1 – Metal industry
Measuring and monitoring cooling water (industrial ovens)

Example 2 – Food industry
Monitoring cold/warm water (process cooling/heating)

Example 3 – Beverage industry
Measuring and monitoring rinsing water (cleaning containers)

Application and measurement task
A wide range of machines and systems for processing foodstuffs have a double jacket in which the cooling/heating water is measured.

Solution and advantages with Picomag
- Compact size → space-saving installation in the machine
- Simultaneous measurement of flow and temperature → Adherence to the optimal processing temperature
Application areas and examples

Picomag enables a reliable flow/temperature measurement of all conductive liquids

Example 1 – Metal industry
Measuring and monitoring cooling water (industrial ovens)

Example 2 – Food industry
Monitoring cold/warm water (process cooling/heating)

Example 3 – Beverage industry
Measuring and monitoring rinsing water (cleaning containers)

Application and measurement task
Applications for cleaning containers (bottles, crates, etc.) and tunnel pasteurization use water or leach solutions as rinsing water.

Solution and advantages with Picomag
The water supply and drainage are measured precisely in order to guarantee efficient use of water in the rinsing systems.
# Technical data and dimensions

## Technical data

<table>
<thead>
<tr>
<th>Measuring principle</th>
<th>Electromagnetic flow measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid</td>
<td>Suited for conductive liquids (≥20 μS/cm)</td>
</tr>
<tr>
<td>Display</td>
<td>1.4&quot; TFT color display, auto-rotatable (dependent on orientation)</td>
</tr>
</tbody>
</table>
| Operation                  | - SmartBlue App for smartphone or tablet  
- IO-Link for operation via process control system |
| Material                   | Housing: stainless steel; Measuring tube: PEEK;  
Process connection: stainless steel;  
Display: polycarbonate; Seals: FKM |
| Power supply               | DC 18 to 30 V |
| Process temperature        | -10 to +70 °C (14 to +158 °F) |
| Degree of protection       | IP65/67 (Type 4 enclosure) |
| In-/outputs (selectable)   | 2 freely selectable in-/outputs; current outputs (4–20 mA), pulse/switch output, voltage output (2 to 10 V), IO-Link, status inputs (e.g. for a totalizer reset) |

## Dimensions DN 15 to 25 (½ to 1"

| Nominal diameter            | DN 15 (½"), DN 20 (¾"), DN 25 (1"), DN 50 (2") |
| Measured variable           | Volume flow, temperature |
| Process connections         | Standard: external thread (G½", G¾", G1", G2")  
Optional: adapter sets for internal (G) and external (R, NPT) threads, Tri-clamp, Victaulic |
| Measuring range             | - DN 15: max. 25 l/min (6.6 gal/min)  
- DN 20: max. 50 l/min (13.2 gal/min)  
- DN 25: max. 100 l/min (26.4 gal/min)  
- DN 50: max. 750 l/min (198 gal/min) |
| Process pressure            | 16 bar (232 psi) |
| Max. measured error         | Flow: ±2% o.r. ± 0.5% o.f.s. (of full scale)  
Temperature: ±2.5 °C (±4.5 °F) |
| Repeatability               | Flow: ±0.2% o.f.s.  
Temperature: ±0.5 °C (±0.9 °F) |
| Approvals                   | Drinking water approval (in prep.),  
UL listed (Underwriters Laboratories Inc.) |

## Dimensions DN 50 (2"

Subject to modification

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The Picomag measuring system fulfills the EMC requirements according to IEC/EN 61326. It also conforms to the requirements of the EU and ACMA directives and thus carries the mark.
Technical data and dimensions

**mm (inch)**

<table>
<thead>
<tr>
<th>Technical data</th>
<th>Dimensions DN 15 to 25 (½ to 1&quot;)</th>
<th>Dimensions DN 50 (2&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110 (4.33)</td>
<td>73 (2.87)</td>
<td>56 (2.20)</td>
</tr>
<tr>
<td>M12 × 1</td>
<td>40.5 (1.59)</td>
<td>69.5 (2.74)</td>
</tr>
</tbody>
</table>
Technical data and dimensions

**Dimensions DN 50 (2")**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value (mm)</th>
<th>Value (inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>200</td>
<td>7.87</td>
</tr>
<tr>
<td>Height</td>
<td>113</td>
<td>4.45</td>
</tr>
<tr>
<td>Thickness</td>
<td>58</td>
<td>2.28</td>
</tr>
<tr>
<td>Diameter</td>
<td>86</td>
<td>3.39</td>
</tr>
</tbody>
</table>

Click to navigate