

Picomag

The smart plug-and-play
flowmeter for utilities



reddot award 2018
winner

Endress+Hauser 

People for Process Automation

Flow metering in a pocket-sized format

For the reliable measurement of conductive liquids

Are you looking for space-saving flow and temperature measuring technologies? Are you faced with the need to use cost-efficient devices for your plants? Or do you have to comply with specifications or legal regulations with even more stringent process control at numerous measuring points?

Yes? Then our new Picomag offers exactly what you need!

- Reliable measuring and monitoring of industrial water, cooling water, warm water or rinsing water
- Simultaneous measurement of flow, temperature and conductivity
- Time-saving device configuration even in difficult to reach places thanks to Bluetooth connectivity
- Easy data access via intuitive SmartBlue App
- Flexible integration into all fieldbus systems via IO-Link



1 Intuitive commissioning and operation

- Wireless and secure access to all device data by use of SmartBlue App via Bluetooth
- Backup function for saving and transferring of configuration data (e.g. to other devices)
- Export configuration as PDF report

2 Optimal system integration (plug-and-play)

- Numerous configurable inputs and outputs (current, pulse, voltage or switch outputs)
- IO-Link for seamless integration into established fieldbus systems

3 Robust and compact housing

- High degree of protection (IP65/67)
- Immune against pipe vibrations: high shock and vibration resistance

4 Fast and secure diagnostics

- Clear and unambiguous displays of warning and alarm messages

5 Installation

- No inlet/outlet runs required

6 User-friendly display

- Large, clearly arranged display field (in color)
- Automatic orientation of the screen
- Display of flow rate, totalizer, temperature or conductivity (freely selectable)

7 Unique knock functionality

- To get a quick overview of the configured parameters
- To change Bluetooth status on-site



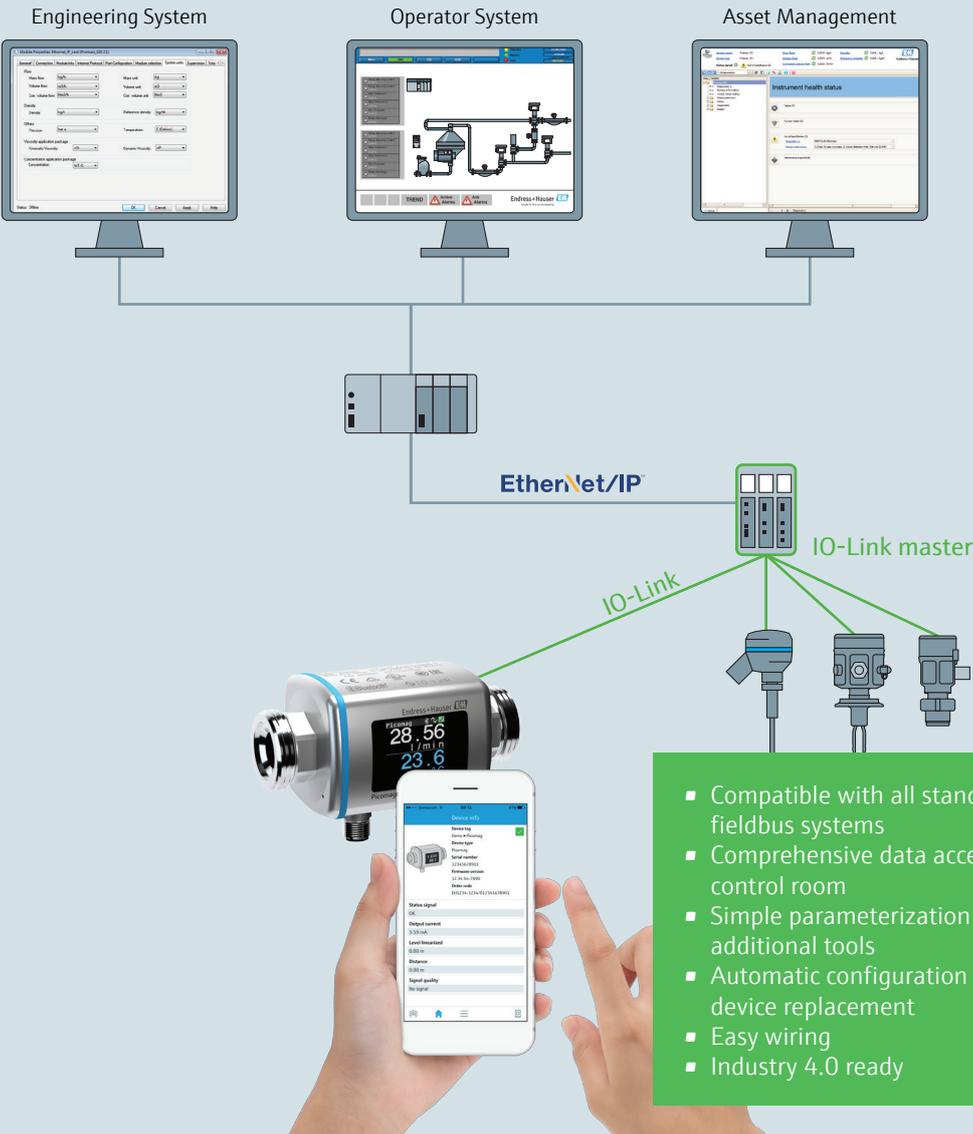
Intuitive operation in the field via Bluetooth and SmartBlue App

- Wireless configuration and data retrieval for difficult to access installation sites
- Simple and fast navigation through device and diagnostic functions via SmartBlue App
- Available for Android and iOS
- Range up to 10 meters



SmartBlue App
Available for iOS and Android

Optimum system integration via IO-Link



Engineering System Operator System Asset Management

EtherNet/IP

IO-Link master

IO-Link

- 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

Technical Data

Picomag	
Measuring principle	Electromagnetic flow measurement
Fluid	Suited for conductive liquids ($\geq 10 \mu\text{S/cm}$)
Display	1.4" TFT color display, auto-rotatable (dependent on orientation)
Operation	<ul style="list-style-type: none"> ■ SmartBlue App for smartphone or tablet (Bluetooth) ■ IO-Link for operation via process control system
Material	Housing: 1.4404/316L, 1.4409/CF3M Process connection: 1.4404/316L Measuring tube: PEEK Display: polycarbonate Electrodes: 1.4435/316L Seals: FKM
Power supply	DC 18 to 30 V
Process temperature	-10 to +70 °C (14 to +158 °F), temporarily up to +85 °C (+185 °F)
Degree of protection	IP65/67 (Type 4 enclosure)
In-/outputs	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)
Communication	Via Bluetooth or IO-Link
Nominal diameter	DN 15 (½"), DN 20 (¾"), DN 25 (1"), DN 50 (2")
Measured variables	Volume flow, temperature, conductivity (temperature-compensated)
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	<ul style="list-style-type: none"> ■ DN 15 (½"): 0.05 to 25 l/min (0.01 to 6.6 gal/min) ■ DN 20 (¾"): 0.1 to 50 l/min (0.03 to 13.2 gal/min) ■ DN 25 (1"): 0.2 to 100 l/min (0.05 to 26.4 gal/min) ■ DN 50 (2"): 1.5 to 750 l/min (0.4 to 198.1 gal/min)
Inlet/outlet run	Not required (0 × DN)
Process pressure	16 bar (232 psi)
Max. measured error	Flow: $\pm 0.8\%$ o.r. $\pm 0.2\%$ o.f.s. (of full scale); temperature: ± 2.5 °C (± 4.5 °F)
Repeatability	Flow: $\pm 0.2\%$ o.f.s.; temperature: ± 0.5 °C (± 0.9 °F); conductivity: $\pm 5\%$ o.r. $\pm 5 \mu\text{S/cm}$
Approvals	Drinking water approval (in prep.), UL listed (Underwriters Laboratories Inc.)
	Subject to modification

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 **CE** and the  mark.

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