

Proline Promag P 10 electromagnetic flowmeter

Flowmeter for basic process applications with
easy-to-use operation concept



Benefits:

- Diverse applications – wide variety of wetted materials
- Energy-saving flow measurement – no pressure loss due to cross section constriction
- Maintenance-free – no moving parts
- Optimum usability – operation with mobile devices and SmartBlue app or display with touch screen
- Simple, time-saving commissioning – guided parameterization in advance and in the field
- Integrated verification – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Volume flow (standard): $\pm 0.5\%$ o.r. ± 1 mm/s (0.04 in/s) Volume flow (option): $\pm 0.2\%$ o.r. ± 2 mm/s (0.08 in/s)
- **Measuring range** 4 dm³/min to 9600 m³/h (1 gal/min to 44 000 gal/min)
- **Medium temperature range** Liner material PFA: -20 to +150 °C (-4 to +302 °F) Liner material PTFE: -40 to +130 °C (-40 to +266 °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Liner: PFA; PTFE Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium

Field of application: Promag P is dedicated to chemical and process applications with corrosive liquids and high medium temperatures. With its straightforward hard- and software design, Promag P 10 simplifies every step in its life cycle from engineering to servicing at usual Endress+Hauser quality. Heartbeat Technology enables safe processes.

Features and specifications

Liquids

Measuring principle

Electromagnetic

Product headline

Flowmeter for basic process applications with easy-to-use operation concept.

Dedicated to chemical and process applications with corrosive liquids.

Sensor features

Diverse applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross section constriction. Maintenance-free – no moving parts.

Nominal diameter: max. DN 600 (24"). All common Ex approvals. Liner made of PTFE or PFA.

Transmitter features

Optimum usability – operation with mobile devices and SmartBlue app or display with touch screen. Simple, time-saving commissioning – guided parameterization in advance and in the field. Integrated verification – Heartbeat Technology.

System integration with HART, Modbus RS485. Flexible operation with app and optional display.

Nominal diameter range

DN 15 to 600 (½ to 24")

Wetted materials

Liner: PFA; PTFE

Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium

Measured variables

Volume flow, conductivity, mass flow

Liquids

Max. measurement error

Volume flow (standard): $\pm 0.5\%$ o.r. ± 1 mm/s (0.04 in/s)

Volume flow (option): $\pm 0.2\%$ o.r. ± 2 mm/s (0.08 in/s)

Measuring range

4 dm³/min to 9600 m³/h (1 gal/min to 44 000 gal/min)

Max. process pressure

PN 40, Class 300, 20K

Medium temperature range

Liner material PFA: -20 to $+150$ °C (-4 to $+302$ °F)

Liner material PTFE: -40 to $+130$ °C (-40 to $+266$ °F)

Ambient temperature range

Flange material carbon steel: -10 to $+60$ °C ($+14$ to $+140$ °F)

Flange material stainless steel: -40 to $+60$ °C (-40 to $+140$ °F)

Sensor housing material

DN 15 to 300 ($\frac{1}{2}$ to 12"): AlSi10Mg, coated

DN 350 to 600 (14 to 24"): Carbon steel with protective varnish

Transmitter housing material

AlSi10Mg, coated

Degree of protection

Standard: IP66/67, Type 4X enclosure

Display/Operation

2.4" LCD display with touch & auto rotate; Configuration and operation via SmartBlue App (Bluetooth) possible

Outputs

4-20 mA HART (active/passive), Pulse/frequency/switch output

Modbus RS485, 4-20 mA

Digital communication

HART, MODBUS RS485

Liquids

Power supply

DC 24 V

AC 100 to 230 V

AC 100 to 230 V / DC 24 V (non-hazardous area)

Hazardous area approvals

ATEX, IECEx, cCSAus, EAC, NEPSI, INMETRO, IND Ex, KC, JPN, UK Ex

Metrological approvals and certificates

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Hygienic approvals and certificates

Driking water approvals: ACS; NSF61, WRAS



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