

Proline Promag E 100 electromagnetic flowmeter

The economical flowmeter with an ultra-compact transmitter



More information and current pricing:

www.us.endress.com/5E1B

Benefits:

- Cost-effective sensor – ideal solution for basic requirements
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- Maintenance-free – no moving parts
- Space-saving transmitter – full functionality on the smallest footprint
- Time-saving local operation without additional software and hardware – integrated web server
- 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 to 44 000 gal/min)
- **Medium temperature range** -10 to $+110$ °C ($+14$ to $+230$ °F)
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Liner: PTFE Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum

Field of application: The proven sensor for economical measurement of conductive liquids, Promag E, serves various basic applications in the chemical and process industry. Its ultra-compact transmitter delivers full performance on the smallest footprint and enables seamless system integration, making Promag E 100 the preferred choice for skid builders, equipment manufacturers and system integrators. Heartbeat Technology ensures compliance and process safety at all times.

Features and specifications

Liquids

Measuring principle

Electromagnetic

Product headline

The economical flowmeter with an ultra-compact transmitter.
Fully suitable for basic applications in the chemical and process industry.

Sensor features

Cost-effective sensor – ideal solution for basic requirements. Energy - saving flow measurement – no pressure loss due to cross section constriction. Maintenance - free – no moving parts.

Nominal diameter: max. DN 600 (24"). Ex approvals for Zone 2. Liner made of PTFE.

Transmitter features

Space-saving transmitter – full functionality on the smallest footprint. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Robust, ultra-compact transmitter housing. Local display available.

Nominal diameter range

DN 15 to 600 (½ to 24")

Wetted materials

Liner: PTFE

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

Measured variables

Volume flow, conductivity, mass flow

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 to 44 000 gal/min)

Liquids

Max. process pressure

PN 40, Class 150, 20K

Medium temperature range

-10 to +110 °C (+14 to +230 °F)

Ambient temperature range

-10 to +60 °C (+14 to +140 °F)

Sensor housing material

DN 15 to 300 (½ to 12"): AlSi10Mg, coated

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

Transmitter housing material

AlSi10Mg, coated

Degree of protection

IP67, type 4X enclosure

Display/Operation

4 - line backlit display available (no local operation)

Configuration via web browser and operating tools possible

Outputs

4 - 20 mA HART (active)

Pulse/frequency/switch output (passive)

Inputs

None

Digital communication

HART, PROFIBUS DP, Modbus RS485, EtherNet/IP, PROFINET

Power supply

DC 20 to 30 V

Hazardous area approvals

ATEX, IECEx, cCSAus, INMETRO, EAC

Liquids

Product safety

CE, C-Tick

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

Material certificates

3.1 material

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