

# Proline Promag E 100 electromagnetic flowmeter

The economical flowmeter with an ultra-compact transmitter



More information and current pricing:

[www.endress.com/5E1B](http://www.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.  $\pm 1$  mm/s (0.04 in/s) Volume flow (option):  $\pm 0.2\%$  o.r.  $\pm 2$  mm/s (0.08 in/s)
- **Measuring range** 4 dm<sup>3</sup>/min to 9600 m<sup>3</sup>/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 enables 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.  $\pm 1$  mm/s (0.04 in/s)

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

#### Measuring range

4 dm<sup>3</sup>/min to 9600 m<sup>3</sup>/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

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### 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)

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### Pressure approvals and certificates

PED

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### Material certificates

3.1 material

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