

Proline Promag W 800 electromagnetic flowmeter

Long-lasting battery-powered magmeter with
secure system integration and communication



Benefits:

- Long-lasting battery-powered magmeter with secure system integration and communication
- With corrosion protection for underground installation or permanent underwater use
- Flexible engineering – sensor with fixed or lap-joint process connections
- Improved plant availability – sensor compliant with industry-specific requirements
- Secure data storage and transmission – worldwide encrypted communication over the mobile network
- Convenient commissioning and operation – device access via Bluetooth using intuitive SmartBlue app
- Integrated verification – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Volume flow: $\pm 0.5\%$ o.r. ± 2 mm/s ($\pm 0.5\%$ o.r. ± 0.08 in/s)
- **Measuring range** 9 dm³/min to 22500 m³/h (2.5 to 100000 gal/min)
- **Medium temperature range** Liner material hard rubber: 0 to +70 °C (+32 to +158 °F) Liner material polyurethane: -20 to +50 °C (-4 to +122 °F) Liner material PTFE: -20 to 70°C (-4 to +158 °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Liner: polyurethane; PTFE; hard rubber
Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)

Field of application: Promag W 800 is ideal for off-grid applications in the water industry, even flow measurement in direct underground

installation or underwater. Promag 800 covers basic functionality, Promag 800 Advanced offers the full performance spectrum. The battery-powered transmitter provides worldwide transmission of measured data without additional energy supply. Heartbeat Technology enables measurement reliability and compliant verification.

Features and specifications

Liquids

Measuring principle

Electromagnetic

Product headline

Battery-powered flowmeter with EN ISO 12944 corrosion protection & intelligent energy efficient mode.

For direct underground installation or permanent underwater use.

Certified sensor for the most demanding water and wastewater applications.

Sensor features

Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross section constriction. Maintenance-free – no moving parts.

International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).

Transmitter features

Secure data storage and transmission – worldwide encrypted communication over the mobile network. Convenient commissioning and operation – device access via Bluetooth using intuitive SmartBlue app. Integrated verification – Heartbeat Technology.

Transmitter housing made of durable polycarbonate. Battery lifetime up to 15 years. Measuring intervals can be adapted individually.

Nominal diameter range

DN 25 to 900 (1 to 36")

Liquids

Wetted materials

Liner: polyurethane; PTFE; hard rubber

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

Measured variables

Volume flow

Max. measurement error

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Measuring range

9 dm³/min to 22500 m³/h (2.5 to 100000 gal/min)

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PN 40, Class 300, 20K

Medium temperature range

Liner material hard rubber: 0 to +70 °C (+32 to +158 °F)

Liner material polyurethane: -20 to +50 °C (-4 to +122 °F)

Liner material PTFE: -20 to 70°C (-4 to +158 °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 25 to 300 (1 to 12"): AlSi10Mg, coated

DN 350 to 900 (14 to 36"): Carbon steel with protective varnish

Transmitter housing material

Polycarbonat

Degree of protection

Compact version: IP66/67, type 4X enclosure and IP68, type 6P enclosure

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP68, type 6P enclosure, with protective varnish according to EN ISO 12944 C5-M/Im1/Im2/Im3

Liquids

Display/Operation

4-line backlit display with touch control (operation from outside)
Configuration via local display and operating tools possible; Remote data access via mail and SMS

Outputs

3x Pulse/switch output (passive); Modbus RS485

Inputs

Status input

Digital communication

LTE Cat M1; LTE Cat NB1; LTE Cat NB2; GPRS; EGPRS

Power supply

Internal:

Batteries per DC 3.6 V External:

AC 85 to 265 V (47 to 63 Hz) / DC 19 to 30 V

Hazardous area approvals

CSA, GP

Product safety

CE Marking, EAC Marking, UKCA Marking

Metrological approvals and certificates

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

Custody transfer according to MI-001

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

CRN, PED

Hygienic approvals and certificates

Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920



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