

# Proline Promag W 300 electromagnetic flowmeter

Specialist for demanding water and wastewater applications with a compact, easily accessible transmitter



## Benefits:

- Reliable measurement at constant accuracy with 0 x DN inlet run and no pressure loss
- Flexible engineering – sensor with fixed or lap-joint process connections
- Application fitness – EN ISO 12944 corrosion protection for underground or underwater installation
- Improved plant availability – sensor compliant with industry-specific requirements
- Full access to process and diagnostic information – numerous, freely combinable I/Os and Ethernet
- Reduced complexity and variety – freely configurable I/O functionality
- Integrated verification – Heartbeat Technology

More information and current pricing:

[www.endress.com/5W3B](http://www.endress.com/5W3B)

## 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), Flat Spec
- **Measuring range** 0.5 m<sup>3</sup>/h to 263000 m<sup>3</sup>/h (2.5gal/min to 1665 Mgal/d)
- **Medium temperature range** Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: -20 to +50 °C (-4 to +122 °F) Liner material PTFE: -20 to +90 °C (-4 to +194 °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Liner: Polyurethane; Hard rubber, PTFE Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum

**Field of application:** The premium device for water and wastewater measurement Promag W 300 was designed for reliable use in hazardous areas and under harsh conditions. Its compact transmitter offers high flexibility in terms of operation and system integration: access from one side, remote display and improved connectivity options. Heartbeat Technology enables measurement reliability and compliant verification.

## Features and specifications

### Liquids

#### Measuring principle

Electromagnetic

#### Product headline

Specialist for demanding water and wastewater applications with a compact, easily accessible transmitter.

Reliable measurement at constant accuracy with 0 x DN inlet run and no pressure loss.

Dedicated to the measurement of industrial or municipal water and wastewater .

#### Sensor features

Flexible engineering – sensor with fixed or lap-joint process connections.

Long-term operation – robust and completely welded sensor. Improved plant availability – sensor compliant with industry-specific requirements.

International drinking water approvals.

#### Transmitter features

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

#### Nominal diameter range

DN 25 to 3000(1 to 120")

## Liquids

### Wetted materials

Liner: Polyurethane; Hard rubber, PTFE

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

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### Measured variables

Volume flow, conductivity, mass flow

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### 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), Flat Spec

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### Measuring range

0.5 m<sup>3</sup>/h to 263000 m<sup>3</sup>/h (2.5gal/min to 1665 Mgal/d)

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### Max. process pressure

PN 40, Class 300, 20K

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### Medium temperature range

Liner material hard rubber: 0 to +80 °C (+32 to +176 °F)

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

Liner material PTFE: -20 to +90 °C (-4 to +194 °F)

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### 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)

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### Sensor housing material

DN 25 to 300 (1 to 12"): AlSi10Mg, coated

DN 25 to 2400 (1 to 90"): Carbon steel with protective varnish

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): Polycarbonate; 1.4409 (CF3M) similar to 316L

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### Transmitter housing material

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; stainless steel for hygienic transmitter design

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## Liquids

### Display/Operation

4-line backlit display with touch control (operation from outside)  
Configuration via local display and operating tools possible  
Remote display available

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### Outputs

3 outputs:  
4-20 mA HART (active/passive)  
4-20 mA WirelessHART  
4-20 mA (active/passive)  
Pulse/frequency/switch output (active/passive)  
Double pulse output (active/passive)  
Relay output

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### Inputs

Status input 4-20 mA input

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### Digital communication

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus  
RS485, PROFINET, PROFINET over Ethernet-APL, Ethernet/IP, OPC-UA

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### Power supply

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

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### Hazardous area approvals

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

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### Product safety

CE, C-tick, EAC marking

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### Functional safety

Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

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## Liquids

### **Metrological approvals and certificates**

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

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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### **Marine approvals and certificates**

LR approval, DNV approval, ABS approval, BV approval

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### **Pressure approvals and certificates**

CRN, PED

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### **Material certificates**

3.1 material

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### **Hygienic approvals and certificates**

ACS, KTW/W270, NSF 61, WRAS BS 6920

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