# Proline Promag W 400 electromagnetic flowmeter

# Versatile standard flowmeter for the water and wastewater industry



Thông tin thêm và mức tính giá hiện tại: www.apsc.endress.com/5W4C

#### Lợi ích:

- 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
- Safe operation no need to open the device
- Time-saving local operation without additional software and hardware - integrated web server
- Integrated verification and build-up detection Heartbeat Technology

## Tổng quan về thông số kỹ thuật

- Max. measurement error Volume flow (standard): ±0.5 % o.r. ± 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 m3/h to 263000 m3/h (2.5gal/min to 1665 Mgal/d)
- Medium temperature range Liner material hard rubber: 0 to +80  $^{\circ}$ C (+32 to +176  $^{\circ}$ F) Liner material polyurethane: -20 to +50  $^{\circ}$ 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 material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: -20 to +50 °C (-4 to +122 m°F) Liner material PTFE: -20 to +90 °C (-4 to +194 °F) Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum

**Phạm vi ứng dụng:** With its international approvals for custody transfer as well as drinking water, Promag W serves the broadest variety of applications. It is available as both compact or remote version. Promag W 400 saves time and costs thanks to the broad functionality of its transmitter optimized for Water & Wastewater. In addition, Heartbeat Technology ensures measurement reliability and compliant verification.

# Tín năng và thông số kỹ thuật

## Liquids

#### Measuring principle

Electromagnetic

#### Product headline

Versatile standard flowmeter for the water and wastewater industry. Reliable measurement at constant accuracy with 0 x DN inlet run and no pressure loss.

Ideal for water measurement, e.g. drinking water, utility water and industrial/municipal wastewater.

#### Sensor features

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.

International drinking water approvals. Degree of protection IP68 (Type 6P enclosure). Approved for custody transfer to MI-001/OIML R49.

#### **Transmitter features**

Safe operation – no need to open the device due to display with touch control, background lighting. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology.

Transmitter housing made of durable polycarbonate or aluminium. WLAN access. Integrated data logger: measured values monitoring.

#### Nominal diameter range

DN 25 to 3000(1 to 120")

## Liquids

#### Wetted materials

Liner material hard rubber: 0 to  $+80 \,^{\circ}\text{C}$  (+32 to  $+176 \,^{\circ}\text{F}$ ) Liner material polyurethane:  $-20 \, \text{to} \, +50 \,^{\circ}\text{C}$  ( $-4 \, \text{to} \, +122 \,^{\circ}\text{F}$ )

Liner material PTFE:  $-20 \text{ to } +90 \,^{\circ}\text{C} \, (-4 \text{ to } +194 \,^{\circ}\text{F})$ 

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), Flat Spec

#### Measuring range

0.5 m3/h to 263000 m3/h (2.5gal/min to 1665 Mgal/d)

#### Max. process pressure

PN 40, Class 300, 20K

#### Medium temperature range

Liner material hard rubber: 0 to  $+80 \,^{\circ}\text{C}$  (+32 to  $+176 \,^{\circ}\text{F}$ ) Liner material polyurethane:  $-20 \, \text{to} \, +50 \,^{\circ}\text{C}$  ( $-4 \, \text{to} \, +122 \,^{\circ}\text{F}$ )

Liner material PTFE:  $-20 \text{ to } +90 \,^{\circ}\text{C} \, (-4 \text{ to } +194 \,^{\circ}\text{F})$ 

#### Ambient temperature range

Liner material hard rubber: 0 to  $+80 \,^{\circ}\text{C}$  (+32 to  $+176 \,^{\circ}\text{F}$ ) Liner material polyurethane:  $-20 \, \text{to} \, +50 \,^{\circ}\text{C}$  ( $-4 \, \text{to} \, +122 \,^{\circ}\text{F}$ )

#### Sensor housing material

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

DN 25 to 2000 (1 to 78"): Carbon steel with protective varnish

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): Polycarbonate

#### Transmitter housing material

Polycarbonat; AlSi10Mg, coated

## Liquids

#### Degree of protection

Compact version: IP66/67, type 4X 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

Transmitter remote version: IP66/67, Type 4X enclosure

#### Display/Operation

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

#### Outputs

3 ouputs:

0-20 mA/4-20 mA HART (active)

Pulse/frequency/switch output (passive)

Pulse/frequency output (passive)

Switch output (passive)

#### Inputs

Status input

#### **Digital communication**

HART, PROFIBUS DP, EtherNet/IP, Modbus RS485

#### **Power supply**

AC 100...240 V / AC/DC 24 V

#### Hazardous area approvals

cCSAus

#### Metrological approvals and certificates

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

Custody transfer according to MI-001 or OIML R49 (optional class I in combination with 0DN inlet run)

#### Pressure approvals and certificates

**CRN** 

# Liquids

#### Material certificates

3.1 material

### Hygienic approvals and certificates

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

Thông tin bổ sung www.apsc.endress.com/5W4C







# Thị phần số 1 Việt Nam về

# GIẢI PHÁP QUAN TRẮC MÔI TRƯỜNG

& ĐO LƯỜNG CÔNG NGHIỆP



## Trụ sở chính

Số 4E, đường số 6, phường An Phú, Thành Phố Thủ Đức, Thành Phố Hồ Chí Minh.

Hotline: (+84) 901 379 116



# Việt An Miền Bắc

Lô 33, khu BT4-1, dự án khu nhà ở Trung Văn, phường Trung Văn, quận Nam Từ Liêm, Hà Nội

Hotline: (+84) 901 851 116



## Việt An Miền Trung

Số 5A Mai Xuân Thưởng, phường Hòa Khê, quận Thanh Khê, Thành Phố Đà Nẵng

Hotline: (+84) 898 119 116



## **Eurowater Technology**

Số 9A, đường số 6, phường An Phú, TP. Thủ Đức, TP. Hồ Chí Minh.

Hotline: (+84) 909 788 959

## Văn phòng Hà Tĩnh

Tổ dân phố Liên Phú, phường Kỳ Liên, thị xã Kỳ Anh, Hà Tĩnh

Hotline: (+84) 938 442 414