

# Proline Promag 55S electromagnetic flowmeter

The flowmeter with outstanding abrasion resistance and integrated solids content diagnostics



More information and current pricing:

[www.cz.endress.com/55S](http://www.cz.endress.com/55S)

## Benefits:

- Superb signal stability due to unique signal processing
- Maximum safety – industry-optimized measuring electrodes and linings
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- Maintenance-free – no moving parts
- Highest performance – with integrated solids measurement for demanding fluids
- Highest safety – integrated electrode cleaning
- Automatic recovery of data for servicing

## Specs at a glance

- **Max. measurement error** Volume flow:  $\pm 0.5\%$  o.r.  $\pm 1$  mm/s (0.04 in/s) Option:  $\pm 0.2\%$  o.r.  $\pm 2$  mm/s (0.08 in/s)
- **Measuring range** 0.06 dm<sup>3</sup>/min to 600 m<sup>3</sup>/h (0.015 gal/min to 2650 gal/min)
- **Medium temperature range** 0 to +60 °C (+32 to +140 °F), 0 to +80 °C (+32 to +176 °F), -20 to +50 °C (-4 to +122 °F), -20 to +180 °C (-4 to +356 °F), -20 to +150 °C (-4 to +266 °F)
- **Max. process pressure** PN 40, Cl. 300, JIS 20 K
- **Wetted materials** Liner: Polyurethane, Hard rubber, PFA, PTFE, Natural rubber Electrodes: 1.4435/304L, Alloy C-22, Tantalum, Platinum, Duplex 1.4465, Tungsten carbide, Titanium

**Field of application:** Promag S is the specialist for inhomogeneous, abrasive and corrosive fluids. The robust sensor design, featuring industry-optimized liners, enables its use in most challenging

surroundings and metering jobs such as sewage treatment, pulp and paper production or in the primaries and metals industry. Due to its high-performance transmitter, Promag 55S not only measures flow reliably, but also calculates solids content at low maintenance requirements.

## Features and specifications

### Liquids

#### Measuring principle

Electromagnetic

#### Product headline

The flowmeter with outstanding abrasion resistance and integrated solids content diagnostics.

Superb signal stability due to unique signal processing.

Ideal for the most demanding applications with high solids content and high abrasion.

#### Sensor features

Maximum safety – industry-optimized measuring electrodes and linings.

Energy - saving flow measurement – no pressure loss due to cross section constriction. Maintenance - free – no moving parts.

Intensified coil system. Large range of liners. Solids content up to 80 % by weight.

#### Transmitter features

Highest performance – with integrated solids measurement for demanding fluids. Highest safety – integrated electrode cleaning.

Automatic recovery of data for servicing.

4-line backlit display with touch control. Two switch outputs. HART, PROFIBUS PA/DP, FOUNDATION Fieldbus.

#### Nominal diameter range

DN 15...600

1/2"...24"

## Liquids

### Wetted materials

Liner: Polyurethane, Hard rubber, PFA, PTFE, Natural rubber

Electrodes: 1.4435/304L, Alloy C-22, Tantalum, Platinum, Duplex 1.4465, Tungsten carbide, Titanium

### Measured variables

Volume flow, electrical conductivity, mass flow

### Max. measurement error

Volume flow:  $\pm 0.5\%$  o.r.  $\pm 1$  mm/s (0.04 in/s)

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

### Measuring range

0.06 dm<sup>3</sup>/min to 600 m<sup>3</sup>/h (0.015 gal/min to 2650 gal/min)

### Max. process pressure

PN 40, Cl. 300, JIS 20 K

### Medium temperature range

0 to +60 °C (+32 to +140 °F), 0 to +80 °C (+32 to +176 °F), -20 to +50 °C (-4 to +122 °F), -20 to +180 °C (-4 to +356 °F), -20 to +150 °C (-4 to +266 °F)

### Ambient temperature range

-40 to +60 °C (-40 to +140 °F)

### Sensor housing material

Aluminum coated AlSi10Mg, carbon steel with protective varnish

### Transmitter housing material

Powder-coated die-cast aluminum

### Degree of protection

Standard: IP 67 (Type 4X enclosure) for transmitter and sensor

Optional: IP 68 (Type 6P enclosure) for remote version of Promag S sensor

## Liquids

### Display/Operation

Liquid-crystal display: illuminated, four lines with 16 characters per line  
Onsite operation with three optical sensor keys

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### Outputs

4...20mA  
(active/passive) Pulse-/ Frequency output (active/passive)  
Two status outputs

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### Inputs

Status  
Current input

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### Digital communication

HART, PROFIBUS DP/PA, FOUNDATION Fieldbus

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### Power supply

AC 20 to 260 V  
DC 20 to 64 V

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### Hazardous area approvals

ATEX, FM, CSA, UK Ex

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### Product safety

CE, C-tick, EAC marking

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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

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

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