

Promag 53E



More information and current pricing:

www.th.endress.com/53E

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
- Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics
- Easy calculation – bidirectional totalizers
- Automatic recovery of data for servicing

Specs at a glance

- **Max. measurement error** Volume flow: $\pm 0.2\%$ o.r. ± 2 mm/s (0.08 in/s)
- **Measuring range** 4 dm³/min to 9600 m³/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: Promag E is a streamlined sensor for basic chemical applications. It is the most economical solution for our chemical customers. Combined with the Promag 53 transmitter with touch control, four line display and extended functionality like software options for filling and dosing, electrode cleaning or advanced diagnostics, Promag 53E offers highest accuracy in the most complex and demanding measuring tasks. Promag 53E is available as compact or remote version.

Features and specifications

Liquids

Measuring principle
Electromagnetic

Liquids

Product headline

The economical flowmeter with flexible system integration.
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

Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics. Easy calculation – bidirectional totalizers. Automatic recovery of data for servicing.

4-line backlit display with touch control. Device as compact or remote version. HART, PROFIBUS PA/DP, Modbus RS485, FF, EtherNet/IP.

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

Max. measurement error

Volume flow: ± 0.2 % o.r. ± 2 mm/s (0.08 in/s)

Measuring range

4 dm³/min to 9600 m³/h (1 to 44 000 gal/min)

Max. process pressure

PN 40, Class 150, 20K

Liquids

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

Sensor connection housing: AlSi10Mg, coated

Transmitter housing material

Powder - coated die - cast aluminum

Degree of protection

Compact version: IP67, type 4X enclosure

Sensor remote version (standard): IP67, type 4X enclosure

Sensor remote version (option): IP68, type 6P enclosure

Transmitter remote version: IP67, type 4X enclosure

Display/Operation

4 - line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Outputs

4 modular outputs:

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

Pulse/frequency (passive)

Relay output

Switch output (passive)

Inputs

2 modular inputs:

Status input

0 - 20 mA (aktiv)/4 - 20 mA (aktiv/passiv)

Digital communication

HART, PROFIBUS PA/DP, FOUNDATION Fieldbus, MODBUS RS485,
EtherNet/IP

Liquids

Power supply

DC 16 to 62 V

AC 85 to 260 V (45 to 65 Hz)

AC 20 to 55 V (45 to 65 Hz)

Hazardous area approvals

ATEX, cCSAus

Product safety

CE, C-tick, EAC marking

Metrological approvals and certificates

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Pressure approvals and certificates

PED

Material certificates

3.1 material

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