Promag 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: \(\pm 0.2\% \text{ o.r. } \pm 2 \text{ mm/s (0.08 in/s)}\)
- **Measuring range** 4 dm\(^3\)/min to 9600 m\(^3\)/h (1 to 44 000 gal/min)
- **Medium temperature range** \(-10\) to \(+110\,\degree\,C\) (+14 to +230 \degree\,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

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Liquids

Product headline
std_productprofile_product_usp_34654_1508938758.
Fully suitable for basic applications in the chemical and process industry.

Sensor features
Nominal diameter: max. DN 600 (24”). Ex approvals for Zone 2. Liner made of PTFE.

Transmitter features
std_productprofile_product_benefits_34656_1508940491.
std_productprofile_product_benefits_34658_1508940614.
std_productprofile_product_benefits_34657_1508940613.
std_successorproducts_product_differentiating_tech_features_35324_1
std_successorproducts_product_differentiating_tech_features_35325_1
std_successorproducts_product_differentiating_tech_features_35326_1

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

Medium temperature range
−10 to +110 °C (+14 to +230 °F)
**Liquids**

**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, Ether
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. 17025)

**Pressure approvals and certificates**
PED

**Material certificates**
3.1 material