

Promass 80H



More information and current pricing:

www.be.endress.com/80H

Benefits:

- Maximum safety for chemically aggressive fluids – corrosion-resistant wetted parts
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Cost-effective – dedicated design for standard applications
- Safe operation – display provides easy readable process information
- Fully industry compliant – IEC/EN/NAMUR

Specs at a glance

- **Max. measurement error** Mass flow (liquid): $\pm 0.15\%$ Volume flow (liquid): $\pm 0.15\%$ Mass flow (gas, Tantalum only): $\pm 0.5\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** Tantalum: -50 to $+150 \text{ }^\circ\text{C}$ (-58 to $+302 \text{ }^\circ\text{F}$) Zirconium: -50 to $+200 \text{ }^\circ\text{C}$ (-58 to $+392 \text{ }^\circ\text{F}$)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Measuring tube: Tantalum 2.5W; 702 (UNS R60702) Connection: Tantalum; 702 (UNS R60702)

Field of application: The chemically resistant single-tube design of the Promass H provides highly accurate measurement of liquids and gases in applications requiring highest corrosion resistance. Combined with the proven Promass 80 transmitter with push buttons, Promass 80H offers a cost effective solution for these kind of applications.

Features and specifications

Liquids

Measuring principle

Coriolis

Liquids

Product headline

The chemically resistant single-tube flowmeter with a compact or remote transmitter. Highly accurate measurement of liquids and gases in applications requiring highest corrosion resistance.

Sensor features

Maximum safety for chemically aggressive fluids – corrosion-resistant wetted parts. Fewer process measuring points – multivariable measurement (flow, density, temperature). Spacesaving installation – no in/outlet run needs. Measuring tube made of Tantalum, Zirconium. Nominal diameter: DN 8 to 50 ($\frac{3}{8}$ to 2").

Transmitter features

Cost-effective – dedicated design for standard applications. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display with push buttons. Device in compact or remote version.

Nominal diameter range

DN 8 to 50 ($\frac{3}{8}$ to 2")

Wetted materials

Measuring tube: Tantalum 2.5W; 702 (UNS R60702)
Connection: Tantalum; 702 (UNS R60702)

Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow, reference density

Max. measurement error

Mass flow (liquid): ± 0.15 %
Volume flow (liquid): ± 0.15 %
Mass flow (gas, Tantalum only): ± 0.5 %
Density (liquid): ± 0.0005 g/cm³

Measuring range

0 to 70 000 kg/h (0 to 2570 lb/min)

Liquids

Max. process pressure

PN 40, Class 300, 20K

Medium temperature range

Tantalum: -50 to +150 °C (-58 to +302 °F)

Zirconium: -50 to +200 °C (-58 to +392 °F)

Ambient temperature range

Standard: -20 to +60 °C (-4 to +140 °F)

Option: -40 to +60 °C (-40 to +140 °F)

Sensor housing material

1.4301 (304), corrosion resistant

Transmitter housing material

Powder-coated die-cast aluminium

1.4301 (304), sheet

CF3M (316L), cast

Degree of protection

IP67, type 4X enclosure. Remote transmitter: IP67, type 4X enclosure

Display/Operation

2-line backlit display with push buttons

Configuration via local display and operating tools possible

Outputs

3 outputs:

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

Pulse/frequency/switch output (passive)

Inputs

Status input

Digital communication

HART

PROFIBUS PA

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, IECEx, FM, CSA, NEPSI

Other approvals and certificates

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

PED, CRN

Product safety

CE, C-tick, EAC marking

Functional safety

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

Metrological approvals and certificates

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

Pressure approvals and certificates

PED, CRN

Material certificates

3.1 material

Gas

Measuring principle

Coriolis

Product headline

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Gas

Sensor features

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Ambient temperature range

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Density

Measuring principle

Coriolis

Characteristic / Application

Balanced single-tube system, "Fit-and-Forget" installation

Design:

Easy to clean, hygienic, careful handling of the medium
- chemically resistant material

Ambient temperature

-20...+65°C
(-4...+140°F)

Density

Process temperature

-50...+200°C
(-58...+392°F)

Process pressure

PN 40
CI 150...300
JIS 10...20K

Wetted parts

Zirconium 702/R60702

Output

4...20 mA
Pulse/Frequency
Status

Certificates / Approvals

ATEX
FM
CSA

Density/Concentration

Measuring principle

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