

## Promass 83H



Thông tin thêm và mức tính giá hiện tại:

[www.apsc.endress.com/83H](http://www.apsc.endress.com/83H)

### Lợi ích:

- 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
- Quality – software for filling & dosing, density & concentration, advanced diagnostics
- Flexible data transfer options – numerous communication types
- Automatic recovery of data for servicing

### Tổng quan về thông số kỹ thuật

- **Max. measurement error** Mass flow (liquid):  $\pm 0.1$  % Volume flow (liquid):  $\pm 0.1$  % Mass flow (gas, Tantalum only):  $\pm 0.5$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** Tantalum:  $-50$  to  $+150$  °C ( $-58$  to  $+302$  °F) Zirconium:  $-50$  to  $+200$  °C ( $-58$  to  $+392$  °F)
- **Max. process pressure** PN 40, Class 300, 20K
- **Wetted materials** Measuring tube: Tantalum 2.5W; 702 (UNS R60702) Connection: Tantalum; 702 (UNS R60702)

**Phạm vi ứng dụng:** The chemically resistant single-tube design of the Promass H is destined for applications requiring highest corrosion resistance. Combined with the Promass 83 transmitter with touch control, four line display and extended functionality like software options for filling and dosing, concentration measurement or advanced diagnostics, Promass 83H offers premium accuracy in measurement of liquids and gases.

### Tín năng và thông số kỹ thuật

## Liquids

### Measuring principle

Coriolis

### Product headline

The chemically resistant single - tube flowmeter with extended transmitter functionality. Highly accurate measurement of liquids and gases in applications requiring highest corrosion resistance.

### Sensor features

Maximum safety for chemically aggressive fluids – corrosionresistant 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

Quality – software for filling & dosing, density & concentration, advanced diagnostics. Flexible data transfer options – numerous communication types. Automatic recovery of data for servicing. 4 - line backlit display with touch control. 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, concentration

### Max. measurement error

Mass flow (liquid):  $\pm 0.1$  %  
Volume flow (liquid):  $\pm 0.1$  %  
Mass flow (gas, Tantalum only):  $\pm 0.5$  %  
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## Liquids

**Measuring range**

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**Max. process pressure**

PN 40, Class 300, 20K

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**Medium temperature range**

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

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

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**Ambient temperature range**

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

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

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**Sensor housing material**

1.4301 (304), corrosion resistant

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**Transmitter housing material**

Powder - coated die - cast aluminium

1.4301 (304), sheet

CF3M (316L), cast

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**Degree of protection**

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

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**Display/Operation**

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

Configuration via local display and operating tools possible

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**Outputs**

4 modular outputs:

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

Pulse/frequency/switch output (passive)

Relay

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**Inputs**

2 modular inputs:

Status

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

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## Liquids

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### Digital communication

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

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### 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)

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### Hazardous area approvals

ATEX, IECEX, FM, CSA, NEPSI

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### Other approvals and certificates

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

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### Product safety

CE, C-tick, EAC marking

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### Functional safety

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

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### Metrological approvals and certificates

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### Pressure approvals and certificates

PED, CRN

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### Material certificates

3.1 material

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## Gas

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### Measuring principle

Coriolis

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## Gas

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## Gas

**Max. process pressure**

PN 40, Class 300, 20K

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**Medium temperature range**

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## Gas

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**Pressure approvals and certificates**

PED, CRN

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**Material certificates**

3.1 material

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## Density

**Measuring principle**

Coriolis

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**Density****Characteristic / Application**

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

Design:

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

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**Ambient temperature**

-20...+65°C  
(-4...+140°F)

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**Process temperature**

-50...+200°C  
(-58...+392°F)

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**Process pressure absolute**

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

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**Wetted parts**

Zirconium/R60702

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**Output**

4...20mA  
Pulse/Frequency (10KHz), active/passive  
Relays/Status

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**Certificates / Approvals**

ATEX  
FM  
CSA

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**Density/Concentration****Measuring principle**

Coriolis

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## Density/Concentration

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