

## Promass 80I



Thông tin thêm và mức tính giá hiện tại:

[www.apsc.endress.com/80I](http://www.apsc.endress.com/80I)

### Lợi ích:

- Energy-saving – full bore design enables minimal pressure loss
- 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

### Tổng quan về thông số kỹ thuật

- **Max. measurement error** Mass flow (liquid):  $\pm 0.15\%$  Volume flow (liquid):  $\pm 0.15\%$  Mass flow (gas):  $\pm 0.5\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 180 000 kg/h (0 to 6600 lb/min)
- **Medium temperature range**  $-50$  to  $+150 \text{ }^\circ\text{C}$  ( $-58$  to  $+302 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 100, Class 600, 63K
- **Wetted materials** Measuring tube: Titanium grade 9 Connection: Titanium grade 2

**Phạm vi ứng dụng:** The straight single-tube flow meter Promass I is designed for applications requiring low pressure loss and gentle fluid treatment. Combined with the proven Promass 80 transmitter with push buttons, Promass 80I offers a cost effective solution for applications requiring gentle fluid handling.

### Tín năng và thông số kỹ thuật

Density/Concentration

Measuring principle

Coriolis

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## Density/Concentration

### Product headline

The straight single - tube flowmeter with a compact or remote transmitter. Measuring liquids and gases in applications requiring low pressure loss and gentle fluid treatment.

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### Sensor features

Energy - saving – full bore design enables minimal pressure loss. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in/outlet run needs. Straight, easy cleanable single - tube system. TMB technology.

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### 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.

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### Nominal diameter range

DN 8 to 80 ( $\frac{3}{8}$  to 3")

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### Wetted materials

Measuring tube: Titanium grade 9  
Connection: Titanium grade 2

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### Measured variables

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

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### Max. measurement error

Mass flow (liquid):  $\pm 0.15$  %  
Volume flow (liquid):  $\pm 0.15$  %  
Mass flow (gas):  $\pm 0.5$  %  
Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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### Measuring range

0 to 180 000 kg/h (0 to 6600 lb/min)

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### Max. process pressure

PN 100, Class 600, 63K

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## Density/Concentration

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### Medium temperature range

-50 to +150 °C (-58 to +302 °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

1.4301/1.4307 (304L), 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

2 - line backlit display with push buttons

Configuration via local display and operating tools possible

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### Outputs

3 outputs:

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

Pulse/frequency/switch output (passive)

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### Inputs

Status input

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### Digital communication

HART

PROFIBUS PA

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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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## Density/Concentration

### Hazardous area approvals

ATEX, IECEx, FM, CSA, NEPSI

### 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

### Hygienic approvals and certificates

3-A

## 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...+150°C  
(-58...+302°F)

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**Process pressure absolute**

PN 16...100  
CI 150...600  
JIS 10...63K

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**Wetted parts**

Titan

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**Output**

4...20 mA  
Pulse/Frequency  
Status

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**Certificates / Approvals**

ATEX  
FM  
CSA

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## Gas

**Measuring principle**

Coriolis

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## Gas

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**Wetted materials**

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## Gas

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**Other approvals and certificates**

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(acc. to ISO/IEC 17025), NAMUR, SIL  
PED, CRN  
3-A

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## Gas

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**Pressure approvals and certificates**

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**Material certificates**

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**Hygienic approvals and certificates**

3-A

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## Liquids

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## Liquids

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PED, CRN

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**Material certificates**

3.1 material

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**Hygienic approvals and certificates**

3-A

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