

## Promass 80A



More information and current pricing:

[www.us.endress.com/80A](http://www.us.endress.com/80A)

### Benefits:

- Highest process safety – self-drainable measuring tube design
- 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):  $\pm 0.5\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** to 450 kg/h (0 to 16.5 lb/min)
- **Medium temperature range**  $-50$  to  $+200 \text{ }^\circ\text{C}$  ( $-58$  to  $+392 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 40, Class 300, 20K, 400 bar (5800 psi)
- **Wetted materials** Measuring tube: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022) Connection: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022); 1.4404 (316/316L)

**Field of application:** Promass A is known for its highly accurate measurement of small quantities of liquids and gases for high pressure and low pressure. Combined with the proven Promass 80 transmitter with push buttons, Promass 80A measures accurately smallest quantities of liquids and gases for continuous process control.

### Features and specifications

Gas

Measuring principle

Coriolis

## Gas

**Product headline**

The single - tube flowmeter for smallest flow quantities with a compact or remote transmitter. Measuring accurately smallest quantities of liquids and gases for continuous process control.

**Sensor features**

Highest process safety – self - drainable measuring tube design. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in/outlet run needs. Nominal diameter: DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ " ). Process pressure up to 400 bar (5800 psi).

**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 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ " )

**Wetted materials**

Measuring tube: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022)  
Connection: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022); 1.4404 (316/316L)

**Measured variables**

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

**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>

**Measuring range**

to 450 kg/h (0 to 16.5 lb/min)

## Gas

**Max. process pressure**

PN 40, Class 300, 20K, 400 bar (5800 psi)

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**Medium temperature range**

-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**

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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## Gas

**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

CRN

3-A

**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**

CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A

## Density

**Measuring principle**

Coriolis

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## Density

### Characteristic / Application

The single-tube system for highest measuring accuracy with minimal flow rates

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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 16...400  
CI 150...600  
JIS 10...63K

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### Wetted parts

904L/1.4539  
Alloy C-22/2.4602

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### Certificates / Approvals

ATEX  
FM  
CSA

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## Liquids

### Measuring principle

Coriolis

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## Liquids

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## Liquids

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### **Pressure approvals and certificates**

CRN

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### **Material certificates**

3.1 material

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### **Hygienic approvals and certificates**

3-A

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## Density/Concentration

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Coriolis

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### **Pressure approvals and certificates**

CRN

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### **Material certificates**

3.1 material

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### **Hygienic approvals and certificates**

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