Promass 80A

More information and current pricing:
www.si.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): ±0.15 % Volume flow (liquid): ±0.15 % Mass flow (gas): ±0.5 % Density (liquid): ±0.0005 g/cm³
- **Measuring range** to 450 kg/h (0 to 16.5 lb/min)
- **Medium temperature range** −50 to +200 °C (−58 to +392 °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 (1/24 to 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 (1/24 to 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): ±0.15 %
Volume flow (liquid): ±0.15 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm³

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)

Medium temperature range
–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

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

Density

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

Ambient temperature
-20...65°C
(-4...140°F)

Process temperature
-50...+200°C
(-58...+392°F)

Process pressure absolute
PN 16...400
Cl 150...600
JIS 10...63K

Wetted parts
904L/1.4539
Alloy C-22/2.4602

Certificates / Approvals
ATEX
FM
CSA

Liquids

Measuring principle
Coriolis

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Liquids

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Liquids

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PROFIBUS PA

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Liquids

Other approvals and certificates

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3-A

Product safety

CE, C-tick, EAC marking

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Pressure approvals and certificates

CRN

Material certificates

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Hygienic approvals and certificates

3-A

Density/Concentration

Measuring principle

Coriolis

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Hygienic approvals and certificates
3-A

More information **www.si.endress.com/80A**

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