# Promass 84A

Mais informações e preço atual:
www.br.endress.com/84A

**Benefícios:**

- 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
- Quality – designed for custody transfer; featuring worldwide recognized metrological approvals
- Flexible data transfer options – numerous communication types
- Automatic recovery of data for servicing

## Especificações resumidas

- **Max. measurement error** Mass flow (liquid): ±0.1 % Volume flow (liquid): ±0.1 % Mass flow (gas): ±0.5 % Density (liquid): ±0.0005 g/cm³
- **Measuring range** 0 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)

**Campo de aplicação:** 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 Promass 84 transmitter with touch control and a four line display Promass 84A measures accurately smallest quantities of liquids and gases for a wide range of very demanding applications. It will be the preferred solution for customers needing custody transfer measurement and using advanced functionalities like pulsating flow or fieldbuses.

## Características e especificações

## Liquids

**Measuring principle**

**Product headline**

The single-tube flowmeter for smallest quantities with custody transfer functionality. 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 2 to 4 (1/12 to 1/8"). Process pressure up to 400 bar (5800 psi).

**Transmitter features**

Quality – designed for custody transfer; featuring worldwide recognized metrological approvals. 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 2 to 4 (1/12 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): ±0.1 %
Volume flow (liquid): ±0.1 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm³

## Liquids

**Measuring range**
0 to 450 kg/h (0 to 16.5 lb/min)

**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**
4-line backlit display with touch control
(operation from outside)
Configuration via local display and operating tools possible

**Outputs**
4 modular outputs:
0-20 mA (active)/4-20 mA (active/passive)
Pulse/frequency/switch output (passive),
phase-shifted pulse
Relay

**Inputs**
1 modular input: status

## Liquids

**Digital communication**
HART
Modbus RS485

**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, EAC

**Other approvals and certificates**
3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, custody transfer, CRN, 3-A

**Product safety**
CE, C-tick, EAC marking

**Metrological approvals and certificates**
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR
Custody transfer approvals: MI-002 (gas), MI-005 (liquid) , PTB 7.251 (gas)

**Pressure approvals and certificates**
CRN

**Material certificates**
3.1 material

**Hygienic approvals and certificates**
3-A

## Gas

**Measuring principle**

## Gas

**Product headline**

The single-tube flowmeter for smallest quantities with custody transfer functionality. Measuring accurately smallest quantities of liquids and gases for continuous process control.

**Sensor features**

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**Transmitter features**

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**Nominal diameter range**

DN 2 to 4 (1/12 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): ±0.1 %
Volume flow (liquid): ±0.1 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm³

**Measuring range**

0 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)

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**Sensor housing material**
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**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**
4-line backlit display with touch control
(operation from outside)
Configuration via local display and operating tools possible

**Outputs**
4 modular outputs:
0-20 mA (active)/4-20 mA (active/passive)
Pulse/frequency/switch output (passive),
phase-shifted pulse
Relay

**Inputs**
1 modular input: status

**Digital communication**
HART
Modbus RS485

## 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, custody transfer, CRN, 3-A

**Product safety**

CE, C-tick, EAC marking

**Metrological approvals and certificates**

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR
Custody transfer approvals: MI-002 (gas), MI-005 (liquid), PTB 7.251 (gas)

**Pressure approvals and certificates**

CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A

## Density

**Measuring principle**

**Characteristic / Application**

Coriolis mass flowmeter for custody transfer application.

## Density

**Ambient temperature**

-20...+65°C
(-4...+140°F)

**Process temperature**

-50...+200°C
(-58...+392°F)

**Process pressure**

PN 16...400
Cl 150...600
JIS 10...63K

**Wetted parts**

904L/1.4539
Alloy C-22/2.4602

**Output**

4...20mA
Pulse/Frequency (10KHz, 90° phase shifted, active/ passive)

**Certificates / Approvals**

ATEX
FM
CSA
TIIS

## Density/Concentration

**Measuring principle**

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The single-tube flowmeter for smallest quantities with custody transfer functionality. Measuring accurately smallest quantities of liquids and gases for continuous process control.

## Density/Concentration

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(operation from outside)
Configuration via local display and operating tools possible

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**Pressure approvals and certificates**
CRN

**Material certificates**
3.1 material

**Hygienic approvals and certificates**
3-A

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