

## Promass 84X



More information and current pricing:

[www.cz.endress.com/84X](http://www.cz.endress.com/84X)

### Benefits:

- Increased profit – single installation point providing premium accuracy for large quantities
- 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

### Specs at a glance

- **Max. measurement error** Mass flow (liquid):  $\pm 0.1$  (standard), 0.05 % (option) Volume flow (liquid):  $\pm 0.1$  % Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>
- **Measuring range** 0 to 4100 t/h (0 to 4520 tn. sh./h)
- **Medium temperature range**  $-50$  to  $+180$  °C ( $-58$  to  $+356$  °F)
- **Max. process pressure** PN 100, Class 600
- **Wetted materials** Measuring tube: 1.4404 (316/316L)  
Connection: 1.4404 (316/316L)

**Field of application:** Promass 84X is designed for the oil and gas industry. Typical applications include pipelines and transfers to and from tanker ships, trucks and railroad cars. The key to the accuracy of the Promass X is its patented four-tube design, the first in the world. With its 14-inch diameter and accuracy up to 0.05%, the Promass 84X four-tube Coriolis mass flowmeter is ideal for custody transfer and other high flow rate applications requiring reliability and low maintenance.

### Features and specifications

## Liquids

### Measuring principle

Coriolis

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### Product headline

The highest capacity four-tube flowmeter with custody transfer functionality. For highest flow rates and outstanding performance in on/offshore applications in the oil & gas industry.

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### Sensor features

Increased profit – single installation point providing premium accuracy for large quantities. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Nominal diameter: DN 300 to 400 (12 to 16"). Four-tube system with low pressure drop.

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### 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.

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### Nominal diameter range

DN 300 to 400 (12 to 16")

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### Wetted materials

Measuring tube: 1.4404 (316/316L)

Connection: 1.4404 (316/316L)

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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):  $\pm 0.1$  (standard), 0.05 % (option)

Volume flow (liquid):  $\pm 0.1$  %

Mass flow (gas):  $\pm 0.35$  %

Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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## Liquids

**Measuring range**

0 to 4100 t/h (0 to 4520 tn. sh./h)

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**Max. process pressure**

PN 100, Class 600

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**Medium temperature range**

-50 to +180 °C (-58 to +356 °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**

1.4404 (316L), highest corrosion resistance

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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)

phase-shifted pulse

Relay

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**Inputs**

1 modular input: status

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## Liquids

### Digital communication

HART  
Modbus RS485

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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, EAC

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### Other approvals and certificates

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, custody transfer, PED, CRN, AD 2000, NACE MR0175/MR0103, PMI; welding test acc. to EN, ASME, NORSOK

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### Product safety

CE, C-tick, EAC marking

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### Metrological approvals and certificates

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

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### Pressure approvals and certificates

PED, CRN, AD 2000

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### Material certificates

3.1 material  
NACE MR0175/MR0103, PMI; welding test acc. to EN, ASME, NORSOK

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## Gas

### Measuring principle

Coriolis

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## Gas

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**Nominal diameter range**

DN 300 to 400 (12 to 16")

**Wetted materials**

Measuring tube: 1.4404 (316/316L)

Connection: 1.4404 (316/316L)

**Measured variables**

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

**Max. measurement error**

Mass flow (liquid):  $\pm 0.1$  (standard), 0.05 % (option)

Volume flow (liquid):  $\pm 0.1$  %

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Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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0 to 4100 t/h (0 to 4520 tn. sh./h)

## Gas

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**Ambient temperature range**

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**Inputs**

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**Digital communication**

HART

Modbus RS485

## Gas

**Power supply**

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**Other approvals and certificates**

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**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-005 (liquid)

**Pressure approvals and certificates**

PED, CRN, AD 2000

**Material certificates**

3.1 material

NACE MR0175/MR0103, PMI; welding test acc. to EN, ASME, NORSOK

More information [www.cz.endress.com/84X](http://www.cz.endress.com/84X)