

Promass 84X



More information and current pricing:

www.ch.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): ± 0.1 (standard), 0.05 % (option) Volume flow (liquid): ± 0.1 % Mass flow (gas): ± 0.35 % Density (liquid): ± 0.0005 g/cm³
- **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

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.

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.

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 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): ± 0.1 (standard), 0.05 % (option)

Volume flow (liquid): ± 0.1 %

Mass flow (gas): ± 0.35 %

Density (liquid): ± 0.0005 g/cm³

Liquids

Measuring range

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

Max. process pressure

PN 100, Class 600

Medium temperature range

-50 to +180 °C (-58 to +356 °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

1.4404 (316L), highest corrosion resistance

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, EAC

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

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

Gas

Measuring principle

Coriolis

Gas

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.

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.

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 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): ± 0.1 (standard), 0.05 % (option)

Volume flow (liquid): ± 0.1 %

Mass flow (gas): ± 0.35 %

Density (liquid): ± 0.0005 g/cm³

Measuring range

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

Gas

Max. process pressure

PN 100, Class 600

Medium temperature range

-50 to +180 °C (-58 to +356 °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

1.4404 (316L), highest corrosion resistance

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

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

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.ch.endress.com/84X