

# Promass 830



More information and current pricing:

[www.cz.endress.com/830](http://www.cz.endress.com/830)

## Benefits:

- Maximum safety – highest resistance to stress corrosion cracking
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Quality – software for filling & dosing, density & concentration, advanced diagnostics
- 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 800 000 kg/h (0 to 29 400 lb/min)
- **Medium temperature range**  $-40$  to  $+200$  °C ( $-40$  to  $+392$  °F)
- **Max. process pressure** PN 250, Class 1500
- **Wetted materials** Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750) Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)

**Field of application:** Promass 830 is designed to meet the requirements of the oil and gas industry. It is the first mass flowmeter in the world to combine pressure and corrosion resistance without any compromise. Even under the most difficult process requirements – such as dealing with pressures up to 258 bar (3742 psi) or measuring hydrocarbons with highly aggressive hydrogen sulfide (H<sub>2</sub>S) – the Promass O offers maximum safety for flow measurement in oil and gas.

## Features and specifications

## Liquids

### Measuring principle

Coriolis

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### Product headline

The robust high-pressure flowmeter with extended transmitter functionality. For premium accuracy at highest process pressures; fully suitable for on/offshore conditions.

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### Sensor features

Maximum safety – highest resistance to stress corrosion cracking. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750). Process pressure up to PN 250, Class 1500.

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### Transmitter features

Quality – software for filling & dosing, density & concentration, advanced diagnostics. 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 80 to 150 (3 to 6")

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### Wetted materials

Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750)  
Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)

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### Measured variables

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

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## Liquids

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**Medium temperature range**

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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)

Relay

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**Inputs**

2 modular inputs:

Status

0-20 mA (active)/4-20 mA (active/passive)

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## Liquids

### Digital communication

HART, PROFIBUS PA/DP, FOUNDATION Fieldbus, Modbus RS485, EtherNet/IP

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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

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### Other approvals and certificates

3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, SIL, marine

PED, CRN, AD 2000

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

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### Product safety

CE, C-tick

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### Functional safety

Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

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### Marine approvals and certificates

Marine approval

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### Pressure approvals and certificates

PED, CRN, AD 2000

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### Material certificates

3.1 material

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## Gas

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**Marine approvals and certificates**

Marine approval

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**Pressure approvals and certificates**

PED, CRN, AD 2000

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**Material certificates**

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