

Caudalímetro Vortex Proline Prowirl D 200

Caudalímetro económico de tipo wafer,
disponible en versión compacta o remota



Más información y precios actuales:

www.ar.endress.com/7D2C

Ventajas:

- Medición de temperatura integrada para aplicaciones de medición de caudal másico/energético de vapor saturado
- Fácil alineamiento del sensor – discos de centrado incluidos
- Alto rendimiento – robustez y resistencia a vibraciones, choques térmicos y golpes de ariete probados
- Estabilidad a largo plazo – sensor capacitivo robusto sin oscilaciones
- Cableado sencillo – compartimento de conexiones separado
- Operación segura – no hace falta abrir el dispositivo gracias al indicador con control óptico y retroiluminación
- Verificación integrada – Heartbeat Technology

Resumen de especificaciones

- **Máx. error medido** Volume flow (liquid): ± 0.75 % Volume flow (steam, gas): ± 1.00 % Mass flow (liquid): ± 0.85 % Mass flow (steam, gas): ± 1.7 %
- **Rango de medición** Liquid: 0.16 to 625 m³/h (0.09 to 368 ft³/min) depending on medium: water with 1 bar a, 20 °C (14.5 psi a, 68 °F) Steam, gas: 2 to 8342 m³/h (1.18 to 4910 ft³/min) depending on medium: steam with 180 °C, 10 bar a (356 °F, 145 psi a); air with 25 °C, 4.4 bar a (77 °F, 63.8 psi a)
- **Rango de temperatura del medio** Standard: -40 to +260 °C (-40 to +500 °F) High/low temperature (option): -200 to +400 °C (-328 to +752 °F) High/low temperature (on request): -200 to +450 °C (-328 to +842 °F)
- **Máx. presión de proceso** PN 40, Class 300, 20K
- **Materiales húmedos** Measuring tube: 1.4408 (C3FM) DSC sensor: 1.4435 (316/316L)

Ámbito de aplicación: El sensor Prowirl D puede ser instalado directamente entre bridas, funcionando así como el equipo funcional para aplicaciones en procesos auxiliares con un bajo coste de instalación. Con una tecnología alimentada por lazo, Prowirl D 200 permite una integración económica y sin interrupciones en las infraestructuras existentes. El caudalímetro ofrece la mayor seguridad de operación en zonas con peligro de explosión. La Heartbeat Technology garantiza la seguridad de proceso en todo momento.

Características y especificaciones

Vapor

Measuring principle

Vórtice

Encabezado del producto

Cost-effective wafer flowmeter, available as compact or remote version. Integrated temperature measurement for mass/energy flow of saturated steam. For all basic applications and for 1-to-1 replacement of orifice plates.

Características del sensor

Easy alignment of the sensor – included centering rings. High availability – proven robustness, resistance to vibrations, temperature shocks & water hammer. Long-term stability – robust drift-free capacitive sensor. Face-to-face length of 65 mm (2.56 in). No flanges.

Características del transmisor

Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Display module with data transfer function. Robust dual-compartment housing.

Rango de diámetro nominal

DN 15 to 150 (½ to 6")

Vapor

Materiales húmedos

Measuring tube: 1.4408 (C3FM)

DSC sensor: 1.4435 (316/316L)

Variables medidas

Volume flow, mass flow, corrected volume flow, energy flow, heat flow difference, temperature

Máx. error medidoVolume flow (liquid): ± 0.75 %Volume flow (steam, gas): ± 1.00 %Mass flow (liquid): ± 0.85 %Mass flow (steam, gas): ± 1.7 %**Rango de medición**Liquid: 0.16 to 625 m³/h (0.09 to 368 ft³/min)

depending on medium: water with 1 bar a, 20 °C (14.5 psi a, 68 °F)

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Máx. presión de proceso

PN 40, Class 300, 20K

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Rango de temperatura ambiente

Compact version (standard): -40 to +80 °C (-40 to +176 °F)

Compact version (option): -50 to +80 °C (-58 to +176 °F)

Remote version (standard): -40 to +85 °C (-40 to +185 °F)

Remote version (option): -50 to +85 °C (-58 to +185 °F)

Material de carcasa del sensor

Sensor connection housing: AlSi10Mg, coated; 1.4408 (CF3M)

Vapor

Material de la cubierta del transmisor

AlSi10Mg, coated; 1.4404 (316L)

Grado de protección

Compact version: IP66/67, type 4X enclosure

Sensor remote version: IP66/67, type 4X enclosure

Transmitter remote version: IP66/67, type 4X enclosure

Pantalla/Operación

4 - line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

Salidas

4 - 20 mA HART (passive)

4 - 20 mA (passive)

Pulse/frequency/switch output (passive)

Entradas

Current input 4 - 20 mA (passive)

Comunicación digital

HART, PROFIBUS PA, FOUNDATION Fieldbus

Suministro de energía

DC 12 to 35 V (4 - 20 mA HART with/without pulse/frequency/switch output)

DC 12 to 30 V (4 - 20 mA HART, 4 - 20 mA)

DC 12 to 35 V (4 - 20 mA HART, pulse/frequency/switch output, 4 - 20 mA input)

DC 9 to 32 V (PROFIBUS PA, pulse/frequency/switch output)

Aprobaciones para áreas peligrosas

ATEX, IECEX, cCSAus, JPN, EAC

Seguridad del producto

CE, C-TICK, EAC

Vapor

Seguridad Funcional

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

Aprobaciones y certificados metrológicos

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)

Aprobaciones marítimas y certificados

ABS, LR, BV, DNV GL

Certificados y aprobaciones de presión

PED, CRN

Certificados del material

3.1 material

NACE MR0175/MR0103, PMI (on request)

Gas

Measuring principle

Vórtice

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