

Caudalímetro Vortex Proline Prowirl O 200

Caudalímetro optimizado para los requisitos en instalaciones con tuberías de alta presión



Más información y precios actuales:

www.ar.endress.com/702C

Ventajas:

- Mejor control de proceso – medición integrada de la temperatura y presión para vapor y gases
- Integridad mecánica mejorada para medición de caudal – diseño especial de sensor
- La misma precisión hasta Re 10.000 – el cuerpo de caudalímetro Vortex más lineal
- Estabilidad a largo plazo – sensor capacitivo sin deriva
- 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

- **Error de medición máx.** Volume flow (liquid): $\pm 0.75\%$ Volume flow (steam, gas): $\pm 1.00\%$ Mass flow (saturated steam): $\pm 1.7\%$ (temperature compensated); $\pm 1.5\%$ (temperature/pressure compensated) Mass flow (superheated steam, gas): ± 1.5 (temperature/pressure compensated); $\pm 1.7\%$ (temperature compensated + external pressure compensation) Mass flow (liquid): $\pm 0.85\%$
- **Rango de medición** Liquid: 0.1 to 1700 m³/h (0.061 to 1000 ft³/min) depending on medium: water with 1 bar a, 20 °C (14.5 psi a, 68° F) Steam, gas: 0.52 to 22000 m³/h (0.31 to 13000 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)

- **Máx. presión de proceso** PN 250, Class 1500, 40K
- **Materiales húmedos** Measuring tube: 1.4408 (CF3M) DSC sensor: UNS N07718 similar to Alloy 718, 2.4668 Process connection: 1.4404/F316/F316L

Ámbito de aplicación: Prowirl O es especialmente apto para el control fiable de procesos en aplicaciones exigentes de gas y vapor con altas presiones de proceso. Además, su diseño garantiza la máxima seguridad en procesos principales y auxiliares. Con una tecnología alimentada por lazo, Prowirl O 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

Líquidos

Measuring principle

Vórtice

Título del producto

Flowmeter optimized for requirements of high-pressure mating pipes. Better process control – integrated temperature and pressure measurement for steam and gases. The specialist for applications with high process pressure.

Características del sensor

Increased mechanical integrity for flow measurement – special sensor design. Same accuracy down to Re 10 000 – most linear Vortex meter body. Long-term stability – robust drift-free capacitive sensor. Saturated steam mass flow up to PN 250 (Class 1500). Full compliance with NACE (MR0175/MR0103).

Líquidos

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 300 (½ to 12")

Materiales húmedos

Measuring tube: 1.4408 (CF3M)

DSC sensor: UNS N07718 similar to Alloy 718, 2.4668

Process connection: 1.4404/F316/F316L

Variables medidas

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

Error de medición máx.

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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)

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

4 - 20 mA (passive)

Comunicación digital

HART, PROFIBUS PA, FOUNDATION Fieldbus

Líquidos

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

Seguridad del producto

CE, C-TICK, EAC

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); only Class 900/1500: welding test acc. to ISO 15614 - 1, similar to ASME IX (on request)

Vapor

Measuring principle

Vórtice

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Vapor

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