

FLOWSIC600-XT

ultrasonic flowmeter

Custody transfer natural gas measurement
with intelligent diagnostic functions



More information and current pricing:

www.endress.com/IFL6XT

Benefits:

- Low measurement uncertainty in every application
- Excellent measurement data reliability and availability
- The right ultrasonic gas flow measuring device for every application – without compromise
- Simple device integration – even in compact systems
- Quick and easy commissioning and checks
- Economical quantification of the H₂ content in natural gas

Specs at a glance

- **Measured variables** Volumetric flow a. c., volume a. c., gas velocity, Speed of sound, optional volume correction via integrated, electronic volume corrector (EVC)
- **Measuring Medium** Natural gas (with up to 30% hydrogen), air, natural gases containing increased levels of CO₂, N₂, H₂S, O₂, H₂
- **Nominal pipe size** 3 " ... 56 " (DN 80 ... DN 1400), other nominal pipe sizes on request

Field of application: FLOW SIC600-XT is available in variants with 4, 4+1, 4+4, and 8 measurement paths. In addition to the OIML R 137 Class 1.0 requirements, FLOW SIC600-XT meets the requirements of Class 0.5 and AGA9 in their entirety. FLOW SIC600-XT contains i-diagnostics™ – an intelligent application diagnostics function – and PowerIn Technology™ for continuous measurement operation for up to three weeks in the event of a mains voltage failure. For the very best possible measurement accuracy and long-term stability.

Features and specifications

Gas

Measuring principle

Ultrasonic transit time difference measurement

Measured variables

Volumetric flow a. c., volume a. c., gas velocity, Speed of sound, optional volume correction via integrated, electronic volume corrector (EVC)

Measuring Medium

Natural gas (with up to 30% hydrogen), air, natural gases containing increased levels of CO₂, N₂, H₂S, O₂, H₂

Repeatability

≤ 0.05 % of the measured value (typical)

Accuracy

4-path and 8-path version ≤ ± 0.5 % | (≤ ± 1%) Dry-calibrated

4-path and 8-path version ≤ ± 0.2 % | (≤ ± 0.5%) After flow calibration and alignment using constant factor. Without the calibration uncertainty of the test bench.

4-path and 8-path version ≤ ± 0.1 % | (≤ ± 0.2%) After flow calibration and alignment using polynomial or piecewise correction. Without the calibration uncertainty of the test bench.

Medium temperature range

−46 °C ... +180 °C / −51 °F ... +356 °F

On request: −194 °C ... +280 °C / −381 °F ... +536 °F

Operating pressure range

0 bar (g) ... 450 bar (g) 0 psi (g) ... 6527 psi (g)

Nominal pipe size

3 " ... 56 "

(DN 80 ... DN 1400), other nominal pipe sizes on request

Gas

Metrological approvals and certificates

OIML R 137-1&2:2012 (class 0.5)

OIML D 11:2013

ISO 17089-1

AGA-Report Nr. 9

MID: 2014/32/EU

PED: 2014/68/EU

ASME: B16.5, B16.47 A/B

ATEX: 2014/34/EU

EMC: 2014/30/EU

GOST 8.611-2013

GOST 8.733-2011

CPA: JJG1030-2007

PCEC: GB 3836.1-2010, GB 3836.2-2010, GB 3836.4-2010, GB/T 3836.22-2017

Hazardous area approvals

IECEX

Ex db ia op is [ia Ga] IIA/IIC T4 Gb

Ex db eb ia op is [ia Ga] IIA/IIC T4 Gb

Ex ia op is IIA/IIC T4 Ga

ATEX

II 2 (1) G Ex db ia op is [ia Ga] IIA/IIC T4 Gb

II 2 (1) G Ex db eb ia op is [ia Ga] IIA/IIC T4 Gb

II 1G Ex ia op is IIA/IIC T4 Ga

NEC/CEC (US/CA)

Explosion-proof / non-incendive:

CI I, Div. 1 Group D, T4 / Ex d ia [ia Ga] IIA T4 Gb / CI I, Zone 1 AEx d ia op is [ia Ga] IIA T4 Gb

CI I, Div. 1 Groups B, C, D, T4 / Ex d ia [ia Ga] IIC T4 Gb / CI I, Zone 1 AEx d ia op is [ia Ga] IICT4 Gb

Intrinsically safe:

CI I, Div. 1 Group D T4 / Ex ia IIA T4 Ga / CI I, Zone 0, AEx ia op is IIA T4 Ga

CI I, Div. 1 Groups A, B, C, D, T4 / Ex ia IIC T4 Ga / CI I, Zone 0, AEx ia op is IIC T4 Ga

Gas

Digital Outputs

4 outputs: 2 x status, 2 x pulse:

≤ 30 V, 50 mA

Passive, electrically isolated, open collector or conforming to NAMUR (DIN EN 60947-5-6), f_{max} = 10 kHz (scalable)

Digital communication

Modbus TCP

More information www.endress.com/IFL6XT