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: FLOWSIC600-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, FLOWSIC600-XT meets the requirements of Class 0.5 and AGA9 in their entirety. FLOWSIC600-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:
Cl I, Div. 1 Group D, T4 / Ex d ia [ia Ga] IIA T4 Gb / Cl I, Zone 1 AEx d ia op is [ia Ga] IIA T4 Gb
Cl I, Div. 1 Groups B, C, D, T4 / Ex d ia [ia Ga] IIC T4 Gb / Cl I, Zone 1 AEx d ia op is [ia Ga] IICT4 Gb
Intrinsically safe:
Cl I, Div. 1 Group D T4 / Ex ia IIA T4 Ga / Cl I, Zone 0, AEx ia op is IIA T4 Ga
Cl I, Div. 1 Groups A, B, C, D, T4 / Ex ia IIC T4 Ga / Cl 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), fmax = 10 kHz(scalable)

Digital communication

Modbus TCP

More information **www.endress.com/IFL6XT**