

FLOWSIC600

ultrasonic flowmeter

Reliable flowmeter for process applications



More information and current pricing:

www.endress.com/IFL600

Benefits:

- Long-term stability, reliable measurement
- Low maintenance due to intelligent self-diagnostics
- Virtually immune to pressure regulator noise
- Ultrasonic transducers can be exchanged under operating pressure
- Wide application range

Specs at a glance

- **Measured variables** Volumetric flow, a. c., volume a. c., gas velocity, sound velocity
- **Measuring Medium** Natural gas, air, C₂H₄, steam, process gases (e. g. CO₂ up to 100%, N₂, O₂, Cl₂ etc.), gases like sour gas or bio gas with high H₂S content
- **Nominal pipe size** 2" ... 24" (DN 50 ... DN 600)

Field of application: The FLOWSIC600 is an ultrasonic flowmeter that sets the standard in its market segment. The design shows that it is geared towards the harsh conditions of the industry. Thanks to its compact design with integrated cable routing, the measuring system is durable, fail-safe, low-maintenance, and exhibits long-term stability. The FLOWSIC600 has extensive diagnostic options that allow faults to be detected before the measurement is affected and offers process monitoring based on the speed of sound.

Features and specifications

Gas

Measuring principle

Ultrasonic transit time difference measurement

Gas

Measured variables

Volumetric flow, a. c., volume a. c., gas velocity, sound velocity

Measuring Medium

Natural gas, air, C₂H₄, steam, process gases (e. g. CO₂ up to 100%, N₂, O₂, Cl₂ etc.), gases like sour gas or bio gas with high H₂S content

Repeatability

< 0.1 % of the measured value

Accuracy

2-path version $\leq \pm 1 \%$

4-path version $\leq \pm 0.5 \%$

Typical accuracy, see application specific data for detailed information

Medium temperature range

ATEX:

–40 °C ... +105 °C at T1, T2, T3;

–40 °C ... +91 °C at T4

Other Ex certifications: –40 °C ... +180 °C

Operating pressure range

0 bar (g) ... 250 bar (g)

On request: Up to 450 bar (g)

Nominal pipe size

2" ... 24"

(DN 50 ... DN 600)

Metrological approvals and certificates

ISO 17089-2

MTBF: 15.4 years

Gas

Hazardous area approvals

IECEX:

Gb/Ga Ex db eb ib [ia Ga] IIA T4

Gb/Ga Ex db eb ib [ia Ga] IIC T4

Ultrasonic transducers intrinsically safe

ATEX:

II 1/2 (1) G Ex ia/db eb ia [ia Ga] IIA/IIB/IIC T4...T1 Ga/Gb

III 1/2 (1) G Ex ia/db eb ia [ia Ga] IIC T6 Ga/Gb

Ultrasonic transducers intrinsically safe

NEC/CEC (US/CA):

Class I, Division 1, Groups B, C, D T4

Class I, Division 2, Groups A, B, C, D T4

Class I, Division 1, Group D T4

Class I, Division 2, Group D T4

Ultrasonic transducers intrinsically safe

Digital Outputs

3 outputs:

30 V, 10 mA

Passive, electrically isolated, Open Collector or according to NAMUR (EN 50227), $f_{max} = 6 \text{ kHz}$

(scalable)

Digital communication

Modbus ASCII

Modbus RTU

HART

More information www.endress.com/IFL600