



Gas flow measuring devices
Ultrasonic gas flow meter, FLOWSIC600

FLOWSIC600 2plex



Model Name > **FLOWSIC600 2plex**



The measuring device FLOW SIC600 is an ultrasonic gas flow meter for high requirements. The type FLOW SIC600 2plex combines a legal-for-trade gas meter (4 measuring paths) and a check flow meter (1 measuring path) in one meter body. The FLOW SIC600 2plex detects perturbations before they affect the measuring results of the fiscal metering. The compact design with concealed cabling provides a robust, trouble-free and low-maintenance system. The sealed ultrasonic transducers allow the application in dry, wet or corrosive gases. Due to the direct path layout, the signals are not reflected inside the device and thus not influenced by contaminations. This results in a high longterm stability and accuracy of the system. Adjustable impulse outputs or Modbus connections allow the further use of installed flow computers.

At a glance

- Direct 4+1-path layout without reflection of signals
- Bidirectional measurement without pressure loss
- Redundant measurement
- Hermetically sealed ultrasonic transducers made of titanium
- Wide measuring range up to 1:130
- Fully automated, extensive and intelligent self-diagnosis
- Integrated logbooks and data logs
- Simple operation and extensive diagnosis via operation software MEPAFLOW600 CBM

Your benefits

- Long-term stability and reliability due to integrated check flow meter
- Minimal sensitivity to pressure regulator noise and contamination
- Low maintenance requirements due to advanced, intelligent self-diagnosis (condition based maintenance, CBM)
- Easy-to-use software which supports all diagnostic features
- Low risk of hardware damage from overload
- Transducers can be replaced under operating pressure
- No mechanical wear

Fields of application

- Custody transfer applications in gas industry
- Onshore and offshore on drilling platforms or at transcontinental gas pipelines
- For municipal gas distribution networks and underground gas storage (bidirectional)
- Cryogenic gas applications down to -194 °C
- Also for process gases like N₂, O₂, H₂, CO₂, Cl₂, ethylene, etc.
- for gases with high content of H₂S like sour gas or biogas

Note

The exact device specifications and performance data of the product may deviate from the information provided here, and depend on the application in which the product is being used and the relevant customer specifications.

Technical data

Measurement principle:	Ultrasonic transit time difference measurement
Measured values:	Gas velocity Gas volume Sound velocity Volumetric flow
Max. number of measurands:	2
Measuring ranges:	Gas flow rate: 0 ... 6 m ³ /h/0 ... 100,000 m ³ /h
Comment:	Measuring ranges depend on nominal pipe size
Process temperature:	-194 ... +280 °C on request -40 ... +180 °C
Process pressure:	0 ... 250 bar (g) 0 ... 450 bar (g) on request
Nominal pipe size:	2 ... 48 " (DN 50 ... DN 1200)
Ambient temperature:	-40 ... +60 °C
Conformities:	AGA-Report No. 9 API 21.1 OIML D11 OIML R137-1
Remark:	Pattern approval: MID, PTB, NMI, Measurement Canada, GOST ...
Ex-approvals IECEx:	EX Gb/Ga Ex d e ib [ia Ga] IIA T4 Gb EX Gb/Ga Ex d e ib [ia Ga] IIC T4 Gb IECEx Gb/Ga Ex d e ib [ia Ga] IIC T4 Gb
Ex-approvals ATEX:	II 1/2G EEx de ib [ia] IIA T4 II 1/2G EEx de ib [ia] IIC T4
Ex-approvals USA/Canada:	Class I, Division 1, Groups B, C, D T4; Class I, Division 2, Groups A, B, C, D T4 Class I, Division 1, Groups D T4; Class I, Division 2, Groups D T4
Electrical safety:	CE
Enclosure rating:	IP 67
Analog outputs:	1 output: 4 ... 20 mA, 250 Ω active/passive, electrically isolated
Digital outputs:	3 outputs: 30 V, 100 mA passive, electrically isolated
Interfaces:	RS-485
Bus protocol:	HART Modbus ASCII Modbus RTU
Operation:	Via meter display and software MEPAFLOW600
Device version:	4+1-path version

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