

FLOWSIC100 PN16/CL150







# Gas flow measuring devices Volume flow measuring device for process applications, FLOWSIC100 Process

### Model Name > FLOWSIC100 PN16/CL150



With the FLOWSIC100 PN16 / CL150 gas flow measuring devices measurements can be carried out at pressures up to 16 bar. The ultrasonic transducers have a high acoustic power and are suited for transmitting measurements in large duct diameters up to 1700 mm or for difficult gas compositions. The sender/receiver units are available as hermetically sealed versions made of stainless steel or titanium. The standard system contains a control unit MCU and 2 sender/receiver units. The MCU is used for input and output of signals, for calculation of reference values (standardization) or mass flows, as well as user-friendly LCD interface.

## At a glance

- · Corrosion-resistant transducers made of stainless steel or titanium
- · Process pressure up to 16 bar
- · Hermetically sealed ultrasonic transducers
- · Integral measurement over the duct diameter
- · Measurement without pressure loss, therefore no influences on the process
- · Automatic function control with zero and span point check

### Your benefits

- · Reliable and accurate measurement also at low gas velocities
- · No movable parts, therefore low maintenance
- · Measurement independent of pressure, temperature and gas composition
- Representative measuring results due to measurement across the whole duct diameter
- · No influence on the gas flow due to contact-free measurement
- User-friendly operation and device diagnosis via MCU control unit and SOPAS ET operating software

# Fields of application

- · Natural gas industry
- · Chemical and plastics manufacturing industry
- · Petrochemical industry and refineries
- · Cement manufacturing
- · Steel and iron production
- · Pharmaceutical industry
- · Glass industry
- · Food industry

# 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 temperature Mass flow Sound velocity Volumetric flow, a. c. Volumetric flow s. c.

Max. number of measurands:

Measuring ranges: Gas velocity: -40 ... 0 m/s/0 ... 40 m/s

Comment: Continuously adjustable

Process temperature: -40 ... +260 °C

versions for lower temperatures on request

Process pressure:  $-0.5 \dots 16 \text{ bar}$ Dust load:  $\leq 1 \text{ g/m}^3$ Nominal pipe size:  $0.15 \dots 1.7 \text{ m}$ Length of measuring path:  $0.2 \dots 2 \text{ m}$ 

larger measuring distances on request

Ambient temperature: FLSE100 sender/receiver units, MCUP control unit: -40 ... +60 °C

Electrical safety: CE
Enclosure rating: IP 65
Analog outputs: 1 output:

0/2/4 ... 22 mA, 750 Ω

additional outputs if using I/O modules

Analog inputs: 2 inputs

0 ... 20 mA , 0 ... 10 V

additional inputs if using I/O modules

Digital outputs: 5 floating outputs (change-over contacts) 48 V, 1 A

additional outputs if using I/O modules

Digital inputs: 4 floating contacts

additional inputs if using I/O modules

Interfaces: Ethernet (option)

RS-232 (service interface)

RS-485 (option)

USB 1.1

Bus protocol: Ethernet TCP/IP (option)

Modbus (option)
PROFIBUS DP (option)

Operation: Via LC-display or software SOPAS ET

Device version:

System components:

Cross-duct version

Connection unit
Flange(s) with tube

FLSE100 sender/receiver units

MCUP control unit

Mounting: Installation angle 60°, Flange DIN PN16 or ANSI CL150

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