



FLAWSIC150 Carflow

Exhaust gas flow measurement on chassis and engine test benches up to 600 °C

GAS FLOW MEASURING INSTRUMENTS

SICK
Sensor Intelligence.



Technical data overview

Measured values	Gas velocity, volumetric flow a. c., volumetric flow s. c., gas temperature, gas pressure, sound velocity
Measurement principle	Ultrasonic transit time difference measurement
Gas temperature	≤ +600 °C
Operating pressure	700 mbar ... 1,300 mbar
Serial	✓
Type of fieldbus integration	RS-232
Function	Connection to SOPAS ET software
Diagnostics functions	Self test and fault diagnosis

Product description

FLOWSIC150 Carflow offers first-class performance in combination with a compact design. This combination of state-of-the-art sensor technology and powerful electronics enables excellent measurement accuracy for exhaust gas temperatures up to 600 °C. The ultrasonic measurement principle generates no pressure loss, has no moving parts, and works independently of pressure, temperature, and gas composition, ensuring reliable, low-maintenance operation. Due to the direct measurement of the undiluted exhaust gas, FLOWSIC150 Carflow is easy to install, largely non-reactive, and ideally suited for flexible exhaust gas measurement on vehicle and engine test benches.

At a glance

- Real-time ultrasonic exhaust gas flow measurement
- Independent from pressure, temperature and gas composition
- Outstanding measurement accuracy
- For exhaust gas temperatures up to 600 °C
- Direct measurement made in undiluted exhaust gas
- Heated measuring section
- Minimum backpressure
- Small footprint, mobile, flexible process connections

Your benefits

- High measured data quality thanks to high measurement accuracy
- Reliable flow measurement even under minimal flow and during idling
- Reliable operation thanks to high exhaust gas temperature design
- Versatile concept – ideal for use on existing test benches
- Low cost of investment thanks to mobile application with various test benches
- Convenient installation without feedback on engine characteristics and exhaust gas analysis systems
- Extended operating time through patented sensor cooling
- Low operating costs thanks to minimal maintenance requirements

Fields of application

- Exhaust flow measurement in automotive research and development
- Real-time exhaust flow measurement on chassis and engine test benches.
- Determination of modal exhaust emissions in combination with standard exhaust analyzers.
- Proportional control of the mass flow controller for sampling in Bag Mini Diluter systems (BMD)

Ordering information

Other models and accessories → www.sick.com/FLOWSIC150_Carflow

- **Product segment:** Flow measurement technology
- **Product family group:** Gas flow measuring instruments
- **Product family:** FLOWSIC150 Carflow
- **Measurement principle:** Ultrasonic transit time difference measurement
- **Measured values:** gas velocity, volumetric flow a. c., volumetric flow s. c., gas temperature, gas pressure, sound velocity
- **Communication interface:** Serial, Serial

Communication Interface detail	Process temperature max.	Operating pressure min.	Operating pressure max.	Type	Part no.
RS-232 RS-232	≤ +600 °C	≥ 700 mbar	≤ 1,300 mbar	FLOWSIC150 Carflow	On request

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com