

FMD 09

Flow measuring device

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The flow measuring device FMD 09 is an ideal complement to CEM packages, meeting regulatory requirements and offering a total CEM solution from ABB. The challenge of quantifying the pollutants is subject to legislation on the metering of the concentration and quantity of pollutants introduced to the environment.



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Working principle and design

The flow measuring device FMD 09 is based on the determination of the differential pressure in flowing flue gas with help of a back pressure probe and a pressure sensor. The measured values from the pressure transmitter are transferred as 4–20 mA measuring signal to the evaluation electronics which are located in the measuring device.

The control and display unit is integrated into a weather protected housing.

Due to the possibility to add temperature and pressure measurement, the FMD 09 therefore offers up to three measurements mounted to one flange, significantly reducing integration, installation and commissioning costs.

Always an operational probe

A choice of materials is available to handle both the corrosive properties of the gas and its temperature. Where particulates in the gas could cause blockages, an optional manual or automatic air purging system is available. The system purges the probe automatically and periodically at regular intervals to avoid blockages even with large dust or particle loads and to guarantee maintenance-free continuous operation.

Advantages and features

- Certified for official emission monitoring according to EN 15267-1 (2009), EN 15267-2 (2009), EN 15267-3 (2007), EN 16911 (2013) and EN 14181 (2015) and MCERTS for stack emissions monitoring equipment at industrial installations.
- Velocity certified range 2–30 m/s and supplementary 2–60 m/s
- Precise measurement of gas velocity and volume flow
- Compact device consisting of probe and operating unit → no separate operating device necessary
- Robust design, no purge air required
- Easy mounting, assembly flange included within scope of supply
- One-sided installation
- Local diagnosis of system state by integrated graphic display
- Real-time display with line diagram
- Readout of volume flow at standard reference conditions possible
- Low maintenance requirement
- Temperature measurement included
- Absolute pressure measurement (optional)
- Versatile device suitable for different requirements: options for high temperature probes, manual and auto back-purging and anti-freeze heating, therefore suitable for measurement in humid and aggressive gases
- Minimum gas velocity of 2 m/s required