

Flow measuring device



Continuous in-situ measurement of velocity, temperature and absolute pressure of gas flows in pipelines

APPLICATION

The use of the measuring principle of dynamic pressure and PT100 assures a device which is easy in design and operating as well as the realtime monitoring of the measuring parameters.

The operating and display unit is integrated in the weather protection casing. On the high-quality display all measuring values, status information and parameters are displayed.

Optionally, the absolute pressure at the measuring point can be measured continuously by an absolute pressure transmitter.

YOUR BENEFITS AT A GLANCE

- probe and operating unit integrated in one compact device
- local diagnosis of system state by integrated graphic display
- real-time display with line diagram
- output of volume flow at standard reference conditions possible
- easy mounting and very low maintenance requirement
- absolute pressure measurement (optional)
- automatic zero point and span point check (optional)

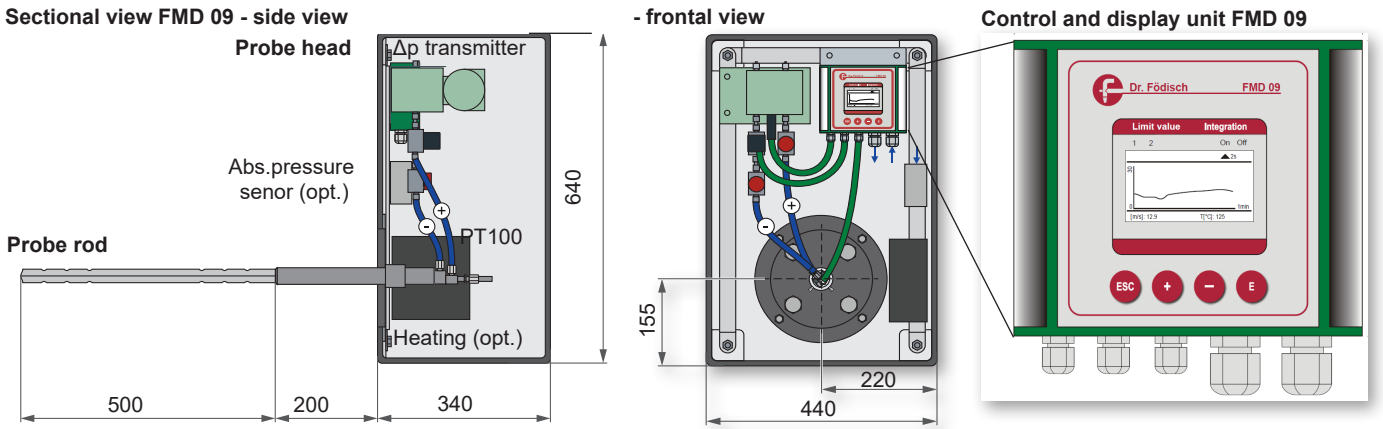
INSTALLATION EXAMPLE



PRECONDITIONS ON SITE

- ambient temperature: -20...+50 °C
- location free of percussion
- homogenous dust and stack gas distribution
- flow velocity of min. 3 m/s
- installation place with run-in/run-out zone of min. 5-fold/2-fold length of duct diameter

DESIGN & DIMENSIONS



TECHNICAL DATA	
Housing:	probe head with GRP weather protection casing, IP65; 440 x 640 x 1040 mm (w x h x d), approx. 30 kg
Probe:	dynamic pressure probe with integrated PT100; immersion depth: 500 mm (standard)
Control and display unit:	integrated control unit with graphic display and 4 operating keys
Relative humidity:	no special sensitivity respective to atmospheric humidity
Media temperature:	max. 280 °C (higher temperatures on request)
Measuring ranges:	<ul style="list-style-type: none"> • velocity: 0...30 m/s (opt.: 0...60 m/s) • volume flow (in operation / in standard condition dry): 0...3,200,000 m³/h • differential pressure: 0...5 mbar (opt.: 0...10 mbar), measurement uncertainty <1% • temperature: 0...300 °C (opt.: 0...800 °C), measurement uncertainty <1% • absolute pressure (opt.): 800...1,200 mbar
Operational availability:	after approx. 1 min
Analogue outputs:	3 x 4...20 mA; selection of the following measurands: velocity, volume flow (in operation / in standard condition dry), differential pressure, temperature and optionally absolute pressure; burden: max. 500 Ω
Digital outputs:	status signals: max. 24 V DC at 0.1 A; failure, maintenance, limit value 1 and 2
Process connection:	flange DN 80 PN 6
Power supply:	110/230 V AC, 50-60 Hz, 24 V DC, 5W
Optional:	<ul style="list-style-type: none"> • output of absolute pressure (measuring range: 800...1200 mbar) • feeding of frost protection heating (230 V AC, 500 W) • manual or automatic back-purging • automatic zero point check • automatic span point check • Hastelloy probe material for corrosive flue gas
<i>Special models are possible on request.</i>	