# Flow measuring device





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

## APPLICATION

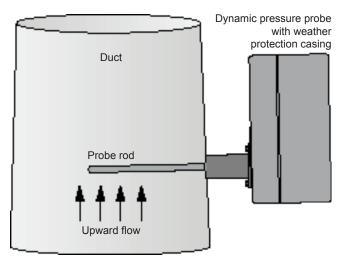
The use of the measuring principle of dynamic pressure and PT100 assures a device which is easy in design and operating as well as the realtime monitoring of the measuring parameters.

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

- compact device consisting of probe and operating unit → no separate operating device necessary
- local diagnosis of system state by integrated graphic display
- · real-time display with line diagram
- readout of volume flow at standard reference conditions possible
- · easy mounting
- · very low maintenance requirement
- · absolute pressure measurement (optional)

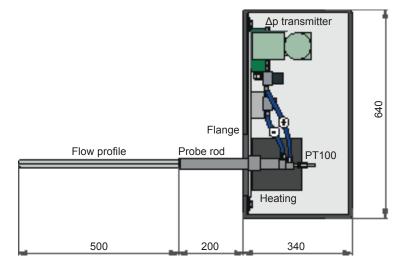


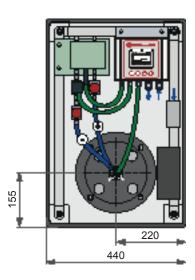
#### INSTALLATION EXAMPLE

#### 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 with GRP weather protection casing, IP55; 440 mm x 640 mm x 1040 mm (w x h x d), approx. 30 kg
Probe:	dynamic pressure probe with integrated PT100; immersion depth: 500 mm (standard)
Display / Operating:	integrated operating unit with graphic display and 4 operating keys
Ambient temperature:	-20+50 °C
Relative humidity:	no special sensitivity respective to atmospheric humidity
Media temperature:	max. 280 °C (higher temperatures on request)
Flow velocity:	from approx. 3 m/s
Measuring ranges:	<ul> <li>velocity: 030 m/s (060 m/s)</li> <li>volume flow (in operation / in standard condition dry): 03.200.000 m³/h</li> <li>differential pressure: 05 mbar (010 mbar), measurement uncertainty &lt;1%</li> <li>temperature: 0300 °C (0800 °C), measurement uncertainty &lt;1%</li> <li>absolute pressure (optional): 8001200 mbar</li> </ul>
Operational availability:	after approx. 1 min
Analogue outputs:	$3x 420$ 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 $\Omega$
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> <li>readout of absolute pressure (measuring range: 8001200 mbar)</li> <li>feeding of frost protection heating (230 V AC, 500 W)</li> <li>manual or automatic back-purging</li> </ul>
Special models are possible on re	equest.