

DATASHEET

Volumetric flow meter **airflow pre**





Flow sensor for wet compressed air

For measurement directly after the compressor in humid air up to +180 °C

The integrated, precise differential pressure sensor measures the differential pressure/back pressure at the sensor tip. This depends on the respective gas velocity. The flow rate can therefore be easily deduced from the pipe diameter.

By additionally measuring temperature and absolute pressure, the respective density can also be measured in a wide variety of gases at a wide variety of temperatures and pressures by calculating the respective density.

Typical applications:

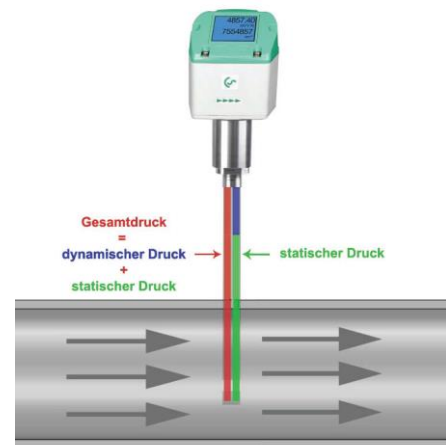
- Measuring the delivery volume of compressors
- Compressed air audits
- Efficiency measurement of compressed air systems

The **advantages** at a glance:

- Unique sensitivity in the lower measuring range: measures from as little as 2 m/s and thus covers the entire operating range of speed-controlled compressors
- Particularly suitable for extremely high flow rates
- Flow rate, total consumption, temperature and pressure
- Measurement at high temperatures, max. temperature 180°C
- Can be used in pipes from DN 20 to DN 600
- Installation via ½" ball valve under pressure

Installation conditions:

- After a functioning water separator
- In horizontal pipes (recommended) or in risers





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Technical data:

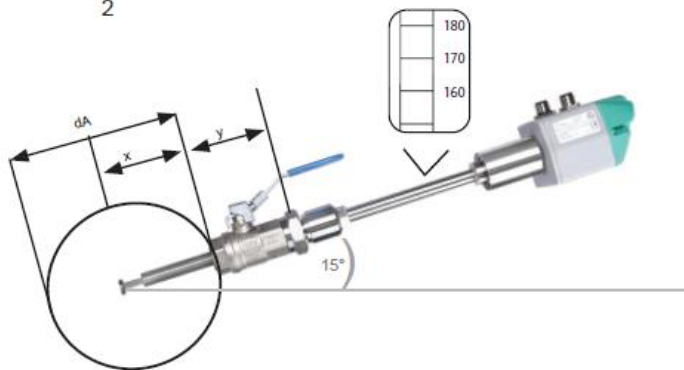
Measuring principle:	Differential pressure
Measuring medium:	Air, non-aggressive gases
Measuring range:	2 to 224 m/s / 600 m/s
Measuring span:	1:100
Response time:	t ₉₉ : < 1 second
Accuracy:	± 1.5 % f.s. ± 0.3 % f.s.
Operating temperature:	-30 ... 180 °C
Operating pressure:	up to 30 bar
Ambient temperature:	-30 ... 70 °C
Digital output:	RS 485 interface, (Modbus-RTU)
Analog output:	4 ... 20 mA, pulse
Power supply:	18 ... 36 VDC, 5W

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Recommended installation position:

Einbautiefe = $x + y$
 dA = Außendurchmesser
 $x = \frac{dA}{2}$

Eingravierte
Tiefenskala für
genauen Einbau



Measuring ranges Flow rate airflow pre for compressed air (ISO 1217: 1000 mbar, 20°C)				
Pipe inner diameter			Measuring range start and end values	
Customs	mm	DN	m³/h	cfm
¾"	21,7	DN 20	2 ... 215	1.2 ... 127
1"	27,3	DN 25	3,2 ... 357	1.9 ... 210
1 ¼"	36,0	DN 32	5,7 ... 644	3.4 ... 379
1 ½"	41,9	DN 40	8 ... 886	4.7 ... 522
2"	53,1	DN 50	13 ... 1450	8 ... 853
2 ½"	68,9	DN 65	23 ... 2484	13 ... 1462
3"	80,9	DN 80	31 ... 3440	18 ... 2025
4"	110,0	DN 100	57 ... 6391	34 ... 3762
5"	133,7	DN 125	85 ... 9453	50 ... 5564
6"	159,3	DN 150	120 ... 13436	71 ... 7908
8"	200,0	DN 200	190 ... 21230	112 ... 12495
10"	250,0	DN 250	296 ... 33211	175 ... 19547
12"	300,0	DN 300	428 ... 47881	252 ... 28182