

DATASHEET

Volumetric flow meter **airflow complete**





Inline flow sensor for air and nitrogen

The airflow complete flow sensor with integrated measuring section guarantees simple installation and high measuring accuracy thanks to the defined inlet and outlet sections to the measuring sensor. Combined with a wide range of interface options for connection to monitoring systems, the airflow complete series offers everything you need for volume flow measurement in modern compressed air systems.

Display values in the display can be rotated by 180°, e.g. for reverse flow direction or overhead installation

Display shows 2 values simultaneously:

- Current consumption in m³/h, l/min,...
- Total consumption (meter reading) in m³, l, kg
- Temperature measurement

The **advantages** at a glance:

- Digital interfaces such as Modbus-RTU, Ethernet (PoE) and M-Bus enable connection to higher-level systems such as energy management systems, building management systems, PLCs,...
- Simple and cost-effective installation
- Units freely selectable via keypad on the display m³/h, m³/min, l/min, l/s, kg/h, kg/min, kg/s, cfm
- Compressed air counter up to 1,999,999,999 m³ can be reset to "zero" via keypad
- Analog output 4...20 mA, pulse output (galvanically isolated)
- High measuring accuracy even in the lower measuring range (ideal for leakage measurement)
- Negligible pressure loss
- Calorimetric measuring principle, no additional pressure and temperature measurement required, no mechanically moving parts
- Extensive diagnostic functions can be read out on the display or remotely via Modbus RTU, e.g. overshoot, max./min. values °C, calibration cycle, error codes, serial number. All parameters can be read out and changed via Modbus



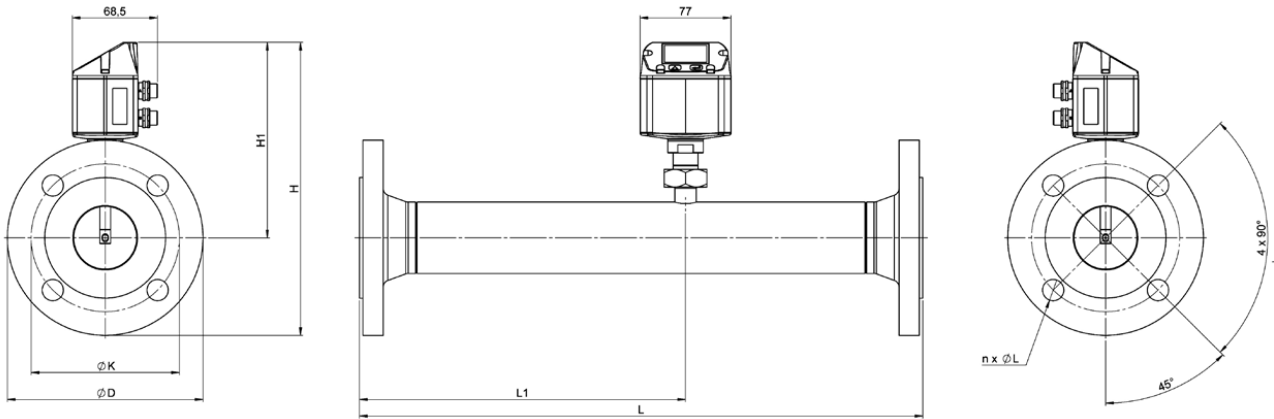
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Technical data:

Measured variables:	m ³ /h, l/min (1000 mbar, 20°C) for compressed air or Nm ³ /h, NI/min (1013 mbar, 0°C) for gases
Units:	m ³ /h, m ³ /min, l/min, l/s, ft/min, cfm, m/s, kg/h, kg/min, g/s, lb/min, lb/h
Sensor:	Thermal mass flow sensor
Measuring medium:	Air, gases
Accuracy:	± 1,5 % v.M. ± 0,3 % v.E.
Operating temperature:	-30 ... 80 °C
Operating pressure:	-1 to 16 bar
Digital output:	RS 485 interface, (Modbus-RTU), M-Bus (optional) Ethernet interface or PoE
Analog output:	4 ... 20 mA for m ³ /h or l/min
Pulse output:	1 pulse per m ³ or per liter galvanically isolated. Pulse value adjustable on the display. Alternatively, the pulse output can be used as an alarm relay
Power supply:	18 ... 36 VDC, 5W
Load:	< 500 Ω
Housing:	Polycarbonate (IP 65)
Measuring section:	Stainless steel, 1.4301
Mounting position:	any

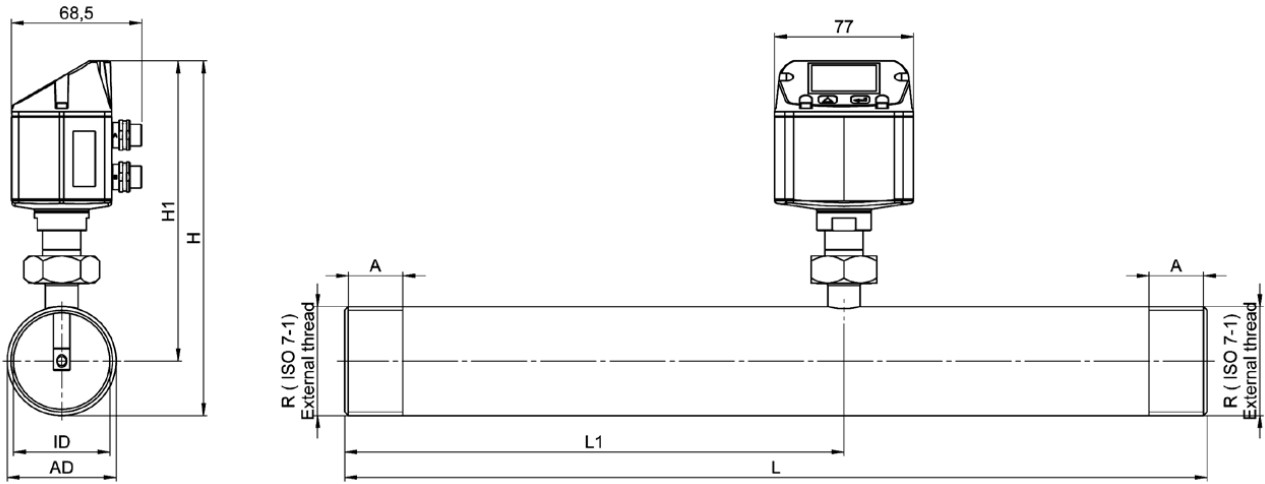
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Dimensions:



Measuring ranges Flow rate airflow complete (air, ISO 1217: 1000 mbar, 20°C)								Flange DIN EN 1092-1			
airflow complete / Measuring section	AD pipe	ID pipe	Measuring range end values		L	L1	H	H1	D	K	nxL
	mm	mm	m ³ /h	cfm	mm	mm	mm	mm	mm	mm	mm
DN15	21,3	16,1	90	50	300	210	213,2	165,7	95	65	4x14
DN20	26,9	21,7	170	100	475	275	218,2	165,7	105	75	4x14
DN25	33,7	27,3	290	170	475	275	223,2	165,7	115	85	4x14
DN32	42,4	36,0	530	310	475	275	235,7	165,7	140	100	4x18
DN40	48,3	41,9	730	430	475	275	240,7	165,7	150	110	4x18
DN50	60,3	53,1	1195	700	475	275	248,2	165,7	165	125	4x18
DN65	76,1	68,9	2050	1205	475	275	268,2	175,7	185	145	8x18
DN80	88,9	80,9	2840	1670	475	275	275,7	175,7	200	160	8x18

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Measuring ranges Flow rate airflow complete (air, ISO 1217: 1000 mbar, 20°C)										
airflow complete	Connection thread	AD pipe	ID pipe	Measuring range end values		L	L1	H	H1	A
				m ³ /h	cfm					
012	R 1/2"	21,3	16,1	90	50	300	210	176,4	165,7	20
034	R 3/4"	26,9	21,7	175	100	475	275	179,2	165,7	20
100	R 1"	33,7	27,3	290	170	475	275	182,6	165,7	25
114	R 1 1/4"	42,4	36,0	530	310	475	275	186,9	165,7	25
112	R 1 1/2"	48,3	41,9	730	430	475	275	186,9	165,7	25
200	R 2"	60,3	53,1	1195	700	475	275	195,9	165,7	30