

AVENTICS Series 553 Air flow sensor

With the AVENTICS Series 553 Inline-air-flo probe you have a device that performs accurate measurements of volume air-flow in compressed air.



Technical data

Industry	Industrial
Switching principle	diaphragm principle
Nominal flow Qn max., standard	500 l/min
Mounting orientation	Any
Max. working pressure	10 bar
Min. ambient temperature	5 °C
Max. ambient temperature	50 °C
Min. medium temperature	5 °C
Max. medium temperature	50 °C
Medium	Compressed air
Max. particle size	50 µm
Min. oil content of compressed air	0 mg/m ³
Max. oil content of compressed air	1 mg/m ³
Electrical connection 2, type	Plug
Electrical connection 2, thread size	M12x1
Electrical connection 2, number of poles	8-pin
Electrical connection 2, coding	A-coded
Precision (% of full scale value)	± 2 %
Max. current consumption	300 mA

Air flow sensor, Series 553-001

2023-11-13

5530011100

Response time	< 15 ms
Protection class	IP54
Weight	1.2 kg

Material

Housing material	Aluminum
Part No.	5530011100

Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

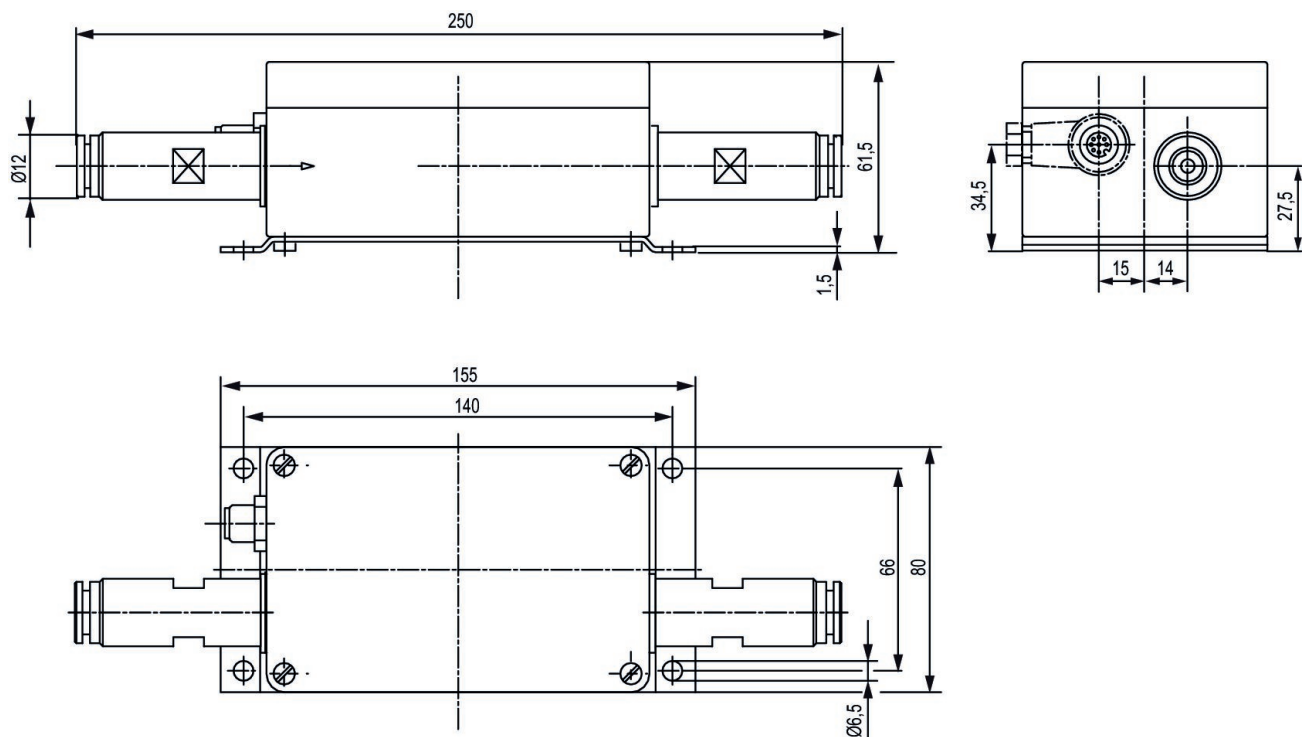
The protection class is only ensured when the plug is mounted properly. For detailed information, see operating instructions.

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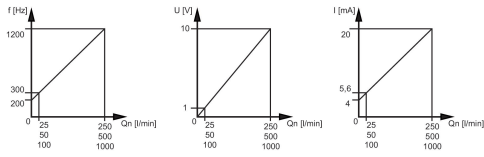
The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in <https://www.emerson.com/en-us/support>).

Dimensions

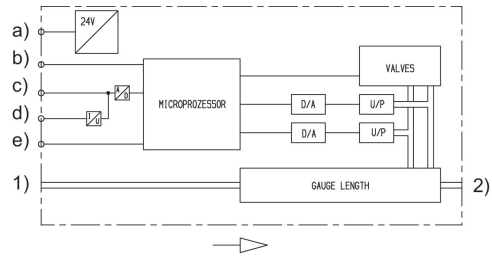


Characteristics



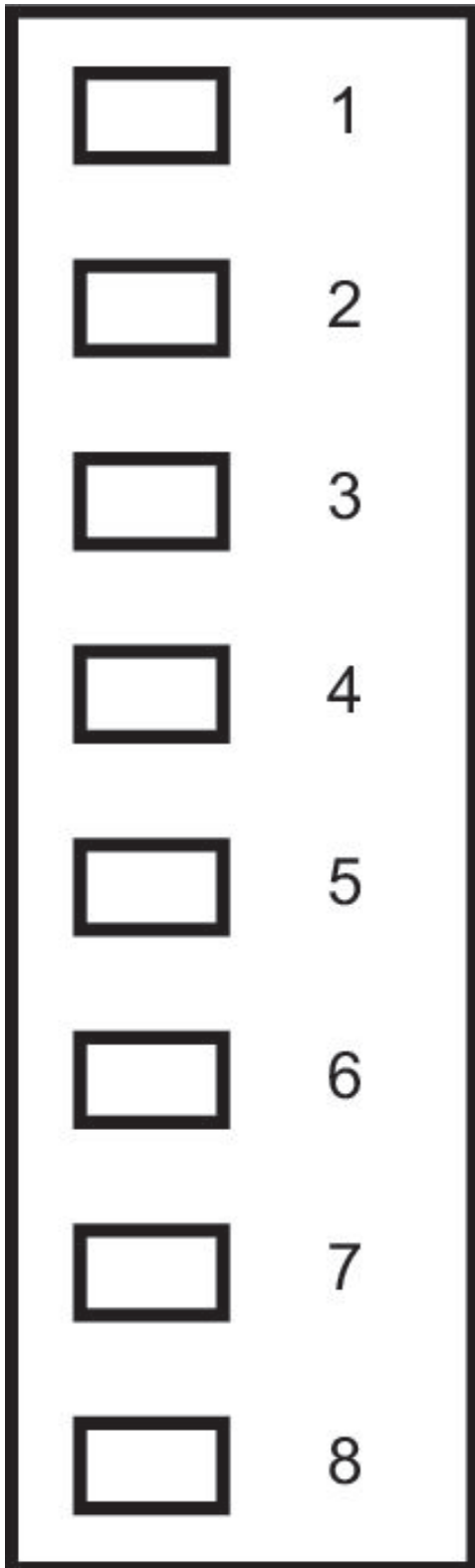
The output signal for the air flow sensor can be selected as a frequency signal, voltage or current.
Shield is connected to plug body.

Functional diagram



a) supply voltage b) frequency output c) voltage output d) current output e) zero point adjustment
1) Input 2) Output

Plug M12, 8-pin



Pin assignments

Pin	Function status
1	Supply Voltage
2	0 V
3	frequency output
4	zero point adjustment
5	Voltage output
6	current output +
7	current output -