

Series AF2

The AVENTICS Series AF2 are flow sensors that monitor air consumption in pneumatic systems, enabling rapid intervention in the event of leakage. The Series AF2 helps to optimize energy consumption, prevent machine downtime and cut costs.



Technical data

Industry

Note

Industrial

Output signal: 1 analog output 4 mA ... 20 mA
+ 1 digital/analog output (PNP, NPN, push-pull,
4 mA ... 20 mA/switchable) + 1 digital output
(PNP, NPN, push-pull, switchable), IO-Link V1.1
(COM3/230K4 baud)

Without mounting

Frame size

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Switching principle

Flow measuring principle: calorimetric

Protocol

IO-Link

Nominal flow

4328 l/min

Nominal flow Qn min., standard

22 l/min

Nominal flow Qn max., standard

4328 l/min

Nominal flow Qn min., extended

4328 l/min

Nominal flow Qn max., extended

6490 l/min

Compressed air connection

1 NPT

Certificates

CE declaration of conformity

RoHS

Min. working pressure

0 bar

Max. working pressure

16 bar

Min. ambient temperature

-20 °C

Max. ambient temperature

50 °C

Min. medium temperature

-20 °C

Max. medium temperature

50 °C

Medium

Compressed air

Series AF2 flow rate sensor, IO-Link

8653AVBP6JA000N

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2024-03-04

	Argon
	Nitrogen
	Carbon dioxide
Filter porosity	5 µm
Display	OLED
Flow display unit	l/sec
	l/min
	m³/min
	m³/h
	ft³/s
	m³/min
Pressure display unit	bar
	psi
Temperature display unit	°C
	°F
Electrical connection 2, type	Plug
Electrical connection 2, thread size	M12x1
Electrical connection 2, number of poles	5-pin
Electrical connection 2, coding	A-coded
Output signal	PNP/NPN/push-pull, switchable
Output signal digital	PNP/NPN/push-pull, switchable
Output signal analog	4 ... 20 mA
Max. power consumption	12 W
Operational voltage	17-30 V DC
Min. operating voltage DC	17 V DC
Max. operating voltage DC	30 V DC
Response time	< 0.3 s
Short circuit resistance	short circuit resistant
Max. shock resistance	30 g, 11 ms
Vibration resistance	1 g (10 - 2000 Hz) IEC 60068 - 2-6
Reproducibility	± 1.5% of the measured value
Protection class	IP65
	IP67 according to IEC 60529
Weight	2.306 kg

Material

Housing material	Polyamide
	Polycarbonate
	Aluminum
Seal material filter	Nitrile butadiene rubber
Seal material sensor	Fluorocarbon caoutchouc
Part No.	8653AVBP6JA000N

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.

Liquid oil or water must be separated via prefiltering. If it is not separated sufficiently, drifting may result.

5 microns - $\pm 4\%$ of measured value + 0.5% of standard full scale $\pm 8\%$ of measured value + 1% of extended full scale

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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>).

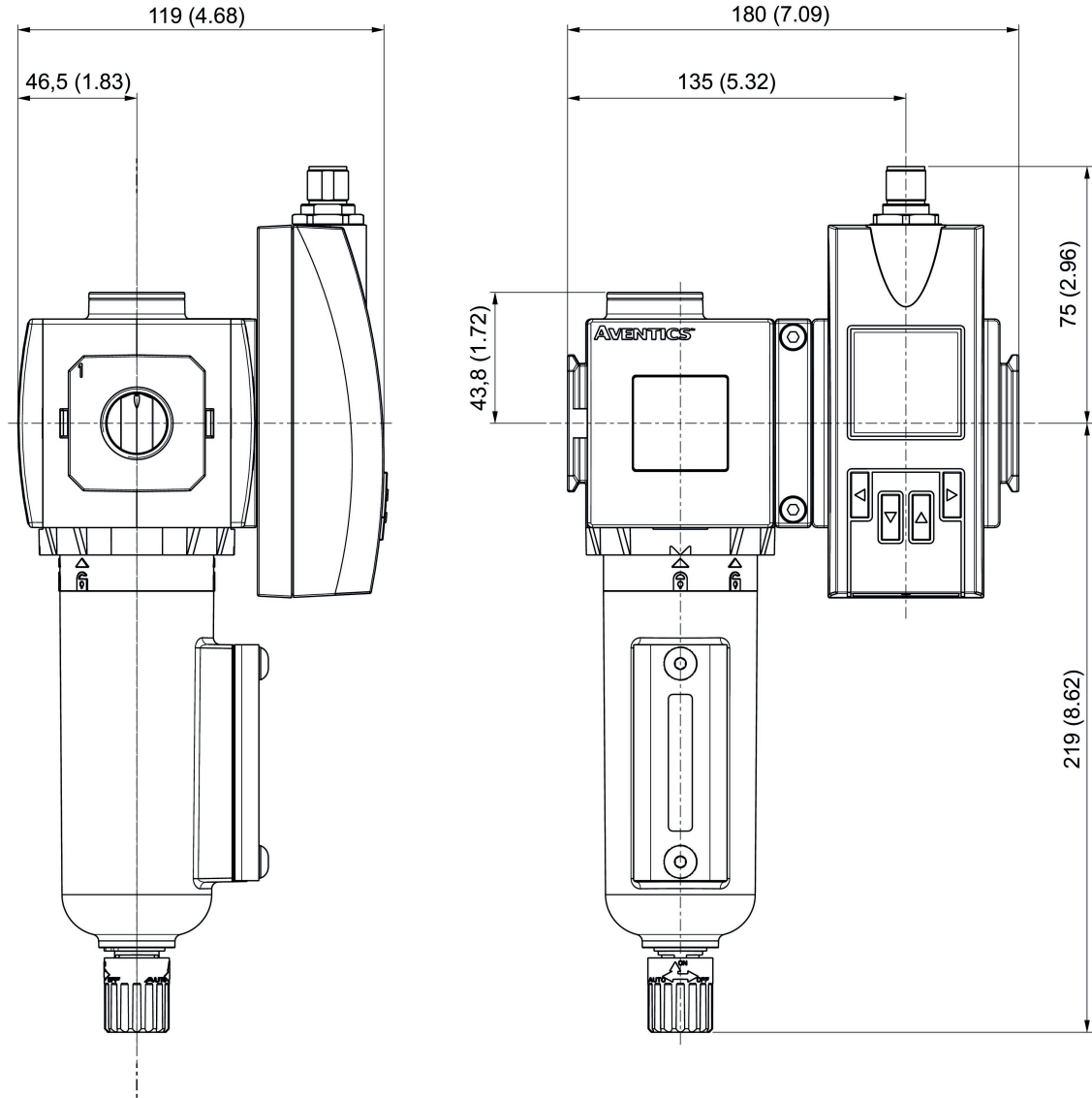
Series AF2 flow rate sensor, IO-Link

8653AVBP6JA000N

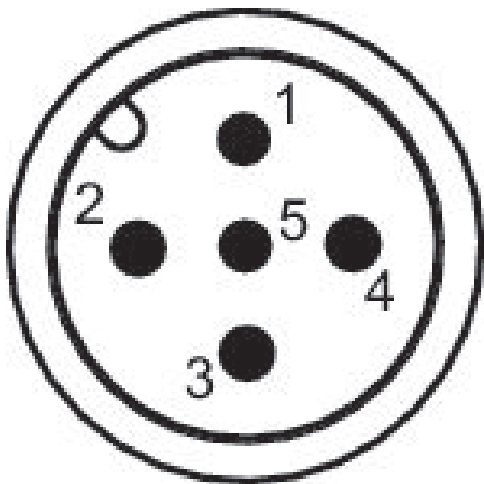
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Dimensions



Pin assignments



Pin assignments

Pin	Allocation	Wire color
1	L+ Supply Voltage	brown
2	QA (output 4 ... 20 mA)	white
3	m = mass	blue
4	C/Q1 (IO-Link/switch output)	black
5	Analog output 4 ... 20 mA	yellow