

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

Industrial

Note

Integrated web server, 48 VDC connection via Power over Ethernet
Without mounting

Frame size

653

Switching principle

Flow measuring principle: calorimetric

Protocol

TCP/IP
OPC UA
MQTT

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
Argon

	Nitrogen Carbon dioxide
Filter porosity	5 µm
Display	OLED
Flow display unit	l/sec l/min m ³ /min m ³ /h ft ³ /s m ³ /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	8-pin
Electrical connection 2, coding	X-coded
Output signal	OPC UA, MQTT, Integrated web server
Max. power consumption	5 W
Operational voltage	24 V DC
Min. operating voltage DC	36 V DC
Max. operating voltage DC	57 V DC
Response time	< 0.3 s
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	2306 kg

Material

Housing material	Polyamide Polycarbonate Aluminum
Seal material filter	Nitrile butadiene rubber
Seal material sensor	Fluorocarbon caoutchouc
Part No.	8653AVBP6JA001N

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.

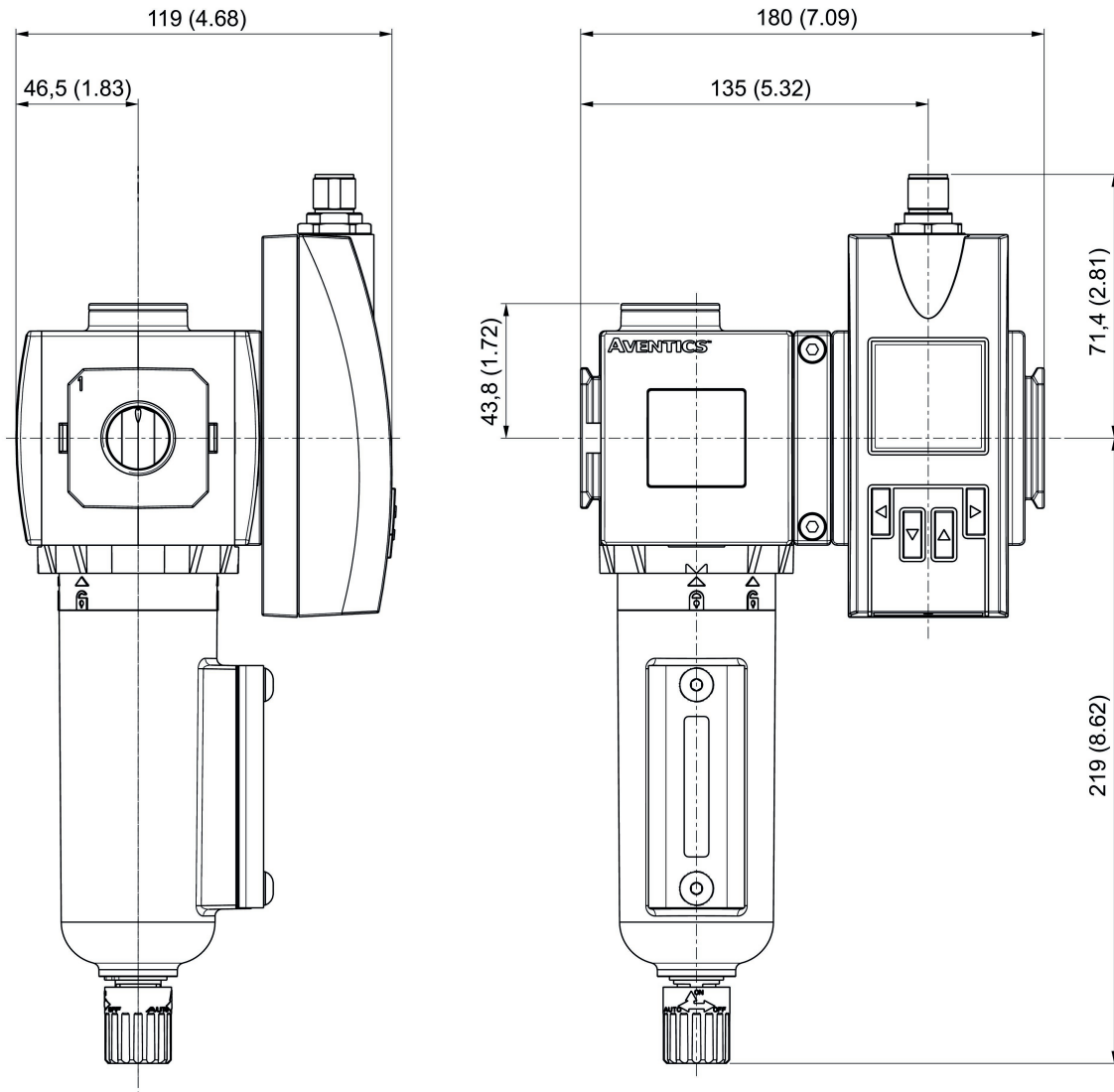
5 microns - $\pm 4\%$ of measured value + 0.5% of standard full scale $\pm 8\%$ of measured value + 1% of extended full scale

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

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

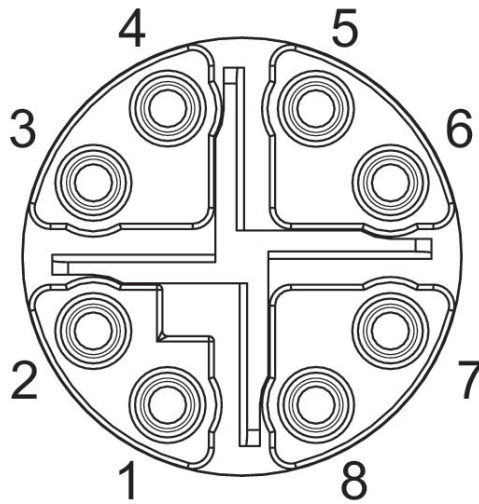
Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in <https://www.emerson.com/en-us/support>).

Dimensions



Pin assignments
M12

X-coded



Pin assignments

Pin	RJ45	Wire color	Identification	10/100 Mbit
1	1	WH / OG	TX(+) + POE	TxData+
2	2	OG	TX(-) + POE	TxData+
3	3	WH / GN	RX(+) - POE	TxData-
4	6	GN	RX(-) - POE	TxData-
7	5	WH / BU	POE+	
8	4	BU	POE+	
5	7	WH / BN	POE-	
6	8	BN	POE-	