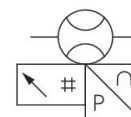


## Series AF2

The pressure dew point must be at least 15 °C below the ambient and medium temperatures and must not exceed 3 °C. The protection class is only ensured when the plug is mounted properly. See the operating instructions for further information. Liquid oil or water must be separated via pre-filtration. If not separated sufficiently, drifting may result. Precision: Standard measurement range:  $\pm 3\%$  of measured value, + 0.3 % of final value. Extended measurement range:  $\pm 8\%$  of measured value, + 1 % of final value.



## Technical data

Industry

Industrial

Note

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

Frame size

DN25

Switching principle

Flow measuring principle: calorimetric

Protocol

TCP/IP  
OPC UA  
MQTT

Nominal flow

2945 l/min

Nominal flow  $Q_n$  min., standard

14.7 l/min

Nominal flow  $Q_n$  max., standard

2945 l/min

Nominal flow  $Q_n$  min., extended

2945 l/min

Nominal flow  $Q_n$  max., extended

4417 l/min

Compressed air connection

G 1

Certificates

CE declaration of conformity  
RoHS  
UL (Underwriters Laboratories)

Min. working pressure

0 bar

Max. working pressure

16 bar

Min. ambient temperature

-20 °C

# AF2 series flow rate sensor, Ethernet

653

G653AV006JA0010

2024-03-04

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Max. ambient temperature	60 °C
Min. medium temperature	-20 °C
Max. medium temperature	60 °C
Medium	Compressed air Argon Nitrogen Carbon dioxide
Display	OLED
Flow display unit	l/sec l/min m <sup>3</sup> /min m <sup>3</sup> /h ft <sup>3</sup> /s m <sup>3</sup> /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
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	0.685 kg

## Material

Housing material	Polyamide Polycarbonate Aluminum
Pipe material	Stainless Steel 1.4301
Seal material sensor	Fluorocarbon caoutchouc
Part No.	G653AV006JA0010

## 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.

The device is designed for installation as a stand-alone device.

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

### Precision

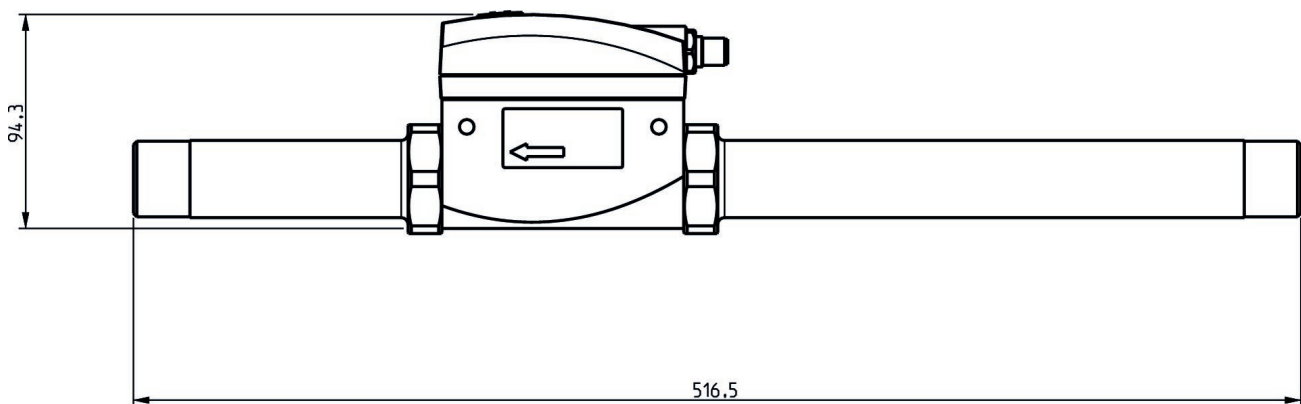
- Standard measurement range:  $\pm 3\%$  of measured value, + 0.3% of final value
- Extended measurement range:  $\pm 8\%$  of measured value, + 1% of final value

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 in mm



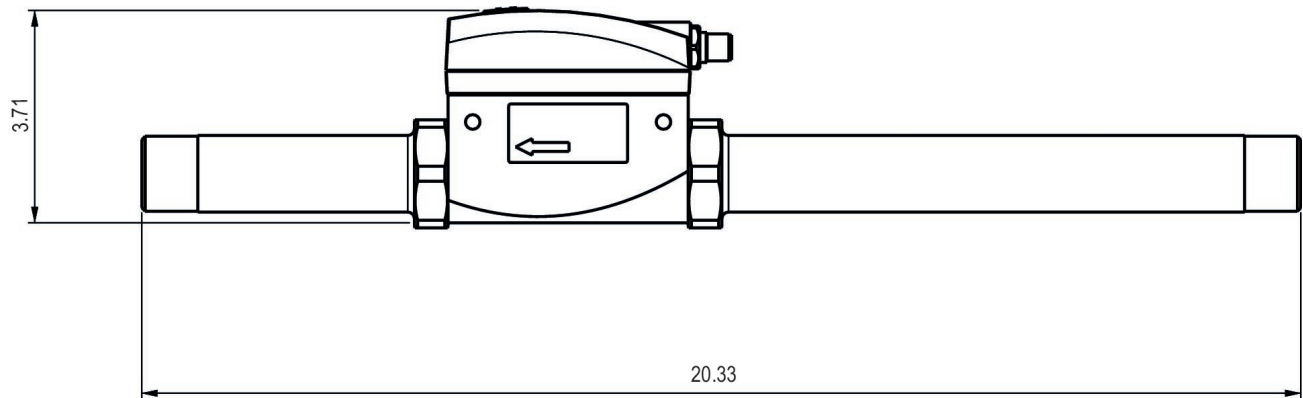
# AF2 series flow rate sensor, Ethernet

G653AV006JA0010

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2024-03-04

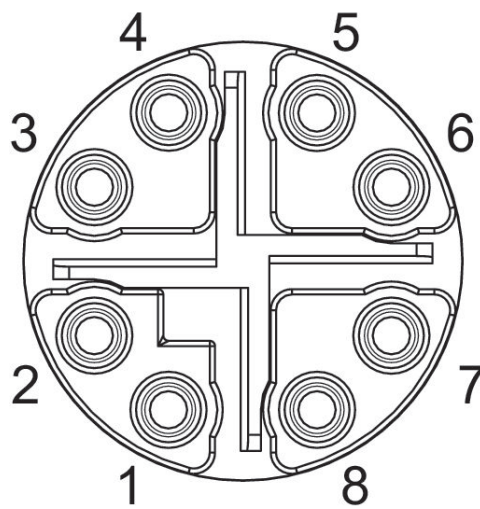
## Dimensions in inches



## 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-	