



DATA SHEET

FFUC25-1N1SR

FFU
Flow sensors



Illustration may differ

FLOW SENSORS

FFUC25-1N1SR

ORDERING INFORMATION

Type	part no.
FFUC25-1N1SR	6056879

Further device versions and accessories at www.sick.com/FFU



DETAILED TECHNICAL DATA

FEATURES

Measurement principle	Ultrasonic sensor
Medium	Fluids
Nominal width measuring tube	DN 25
Process temperature	0 °C ... +80 °C
Process pressure	≤ 10 bar
Communication interface	-

PERFORMANCE

Minimum flow	≥ 5 l/min ¹⁾
Maximum flow	≤ 240 l/min
Inlet zone	40 cm
Output zone	20 cm
Conductivity	No limitation
Measurement accuracy	± 1 % of measured value +/- 0.15% of measuring range limit value (with calibration log) ²⁾
Repeatability	≤ 0.5 %
Resolution	0.03 l/min

¹⁾ At constant flow rate.

²⁾ Reference condition: Water, zero gas, measuring tube completely full, no cavitation, temperature of medium 20 °C, ambient temperature 20 °C ... 25 °C, compliance with inlet and outlet zones, warm-up time for electronics: 30 min.

³⁾ Analog output and display.

Response time	100 ms ³⁾ 300 ms ³⁾ 1 s ³⁾ 4.2 s ³⁾
Calibration certificate	✓

¹⁾ At constant flow rate.

²⁾ Reference condition: Water, zero gas, measuring tube completely full, no cavitation, temperature of medium 20 °C, ambient temperature 20 °C ... 25 °C, compliance with inlet and outlet zones, warm-up time for electronics: 30 min.

³⁾ Analog output and display.

ELECTRONICS

Supply voltage	18 V DC ... 30 V DC ¹⁾
Residual ripple	≤ 5 V _{pp} ²⁾
Power consumption	≤ 180 mA ³⁾
Switch-on time	≤ 5 s
Protection class	✓
Connection type	M12 round connector x 1, 8-pin
Output signal	Analog output 4 mA ... 20 mA, 0 mA ... 20 mA current flow and temperature ¹⁾ 2 pulse/status output PNP/NPN-transistor output for flow rate meter, empty pipe detection, flow monitoring 1 switching input for dosing and counter reset
Output current	< 100 mA ⁴⁾
Output load	< 500 Ohm
Lower signal level	3.8 mA ... 4 mA
Upper signal level	20 mA ... 20.5 mA
Impuls/frequency output	0 kHz ... 10 kHz
Puls width	≤ 1 s
Inductive load	1 H
Capacitive load	100 nF
Enclosure rating	IP67

¹⁾ All connections are polarity protected. All outputs are overload and short-circuit protected.

²⁾ May not fall below or exceed U_i tolerances.

³⁾ Without load.

⁴⁾ There are 100 mA for each output PNP and NPN available.

MECHANICS

Process connection	1 ¼" NPT
Wetted parts	PPSU EPDM
Housing material	PPSU
Weight	460 g

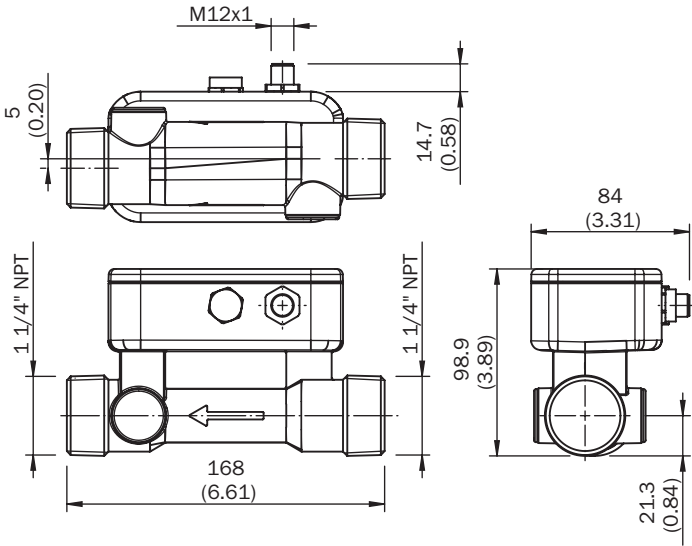
AMBIENT DATA

Ambient operating temperature	0 °C ... +60 °C
Ambient temperature, storage	-20 °C ... +70 °C

CERTIFICATES

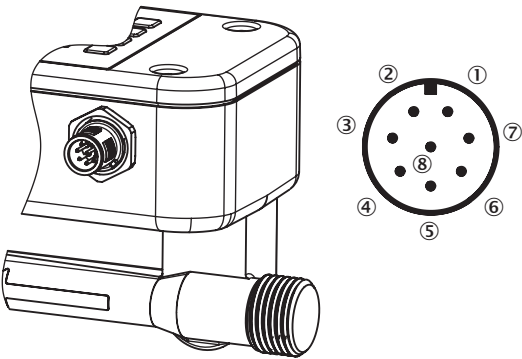
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

DIMENSIONAL DRAWING DN 25, 1 1/4" NPT



Dimensions in mm (inch)

CONNECTION TYPE



- ① L+: Supply voltage
- ② Q: Digital output PNP/NPN
- ③ M: Ground
- ④ Q₂: Digital output PNP/NPN
- ⑤ Q_A: Analog current output
- ⑥ C: Communication
- ⑦ IN_i: Digital input
- ⑧ No function

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6056879



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SICK AT A GLANCE

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Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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