



Flow sensors Ultrasonic flowmeter

FFUC15-1C1SR



Model Name > **FFUC15-1C1SR**
Part No. > **6050189**



Illustration may differ

At a glance

- Flow sensor for conductive and non-conductive liquids
- Compact design with no moving parts
- Process temperature up to 80 °C, process pressure up to 16 bar
- High chemical resistance due to seal-free sensor design
- Large display with membrane keyboard
- Integrated teaching tube detection

Your benefits

- Reduced maintenance costs
- Adjustable measuring ranges reduces the number of variants
- Ability to be used with conductive and non-conductive liquids reduces variants and lowers storage costs
- Straight measuring tube reduces pressure loss, thus reducing energy costs
- Sensor without seals increases process reliability and availability
- Flexible measurement system for all industries



Features

Medium:	Fluids
Nominal width measuring tube:	NW 15
Process temperature:	0 °C ... +80 °C
Process pressure:	Max. 16 bar

Performance

Minimum flow:	0.9 l/min
Maximum flow:	36 l/min
Inlet zone:	30 cm
Outlet zone:	5 cm
Conductivity:	No limitation
Accuracy of sensor element:	1 % (of reading +/- 3 mm/s (with calibration report)) ¹⁾
Repeatability:	≤ 0.5 %
Resolution:	0.006 l/min

¹⁾ Reference condition: water, gas-free, fully-filled measuring tube, no cavitation, Medium temperature 20 °C, ambient temperature 20 °C ... 25 °C, compliance with the inlet zone and outlet zone, warm-up time electronic: 30 min

Mechanical data

Process connection:	Clamp (DIN 11864-3)
Wetted parts:	PSU
Housing material:	PSU
Weight:	350 g
Enclosure rating:	IP 67

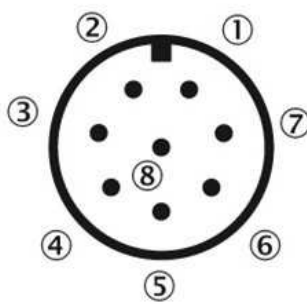
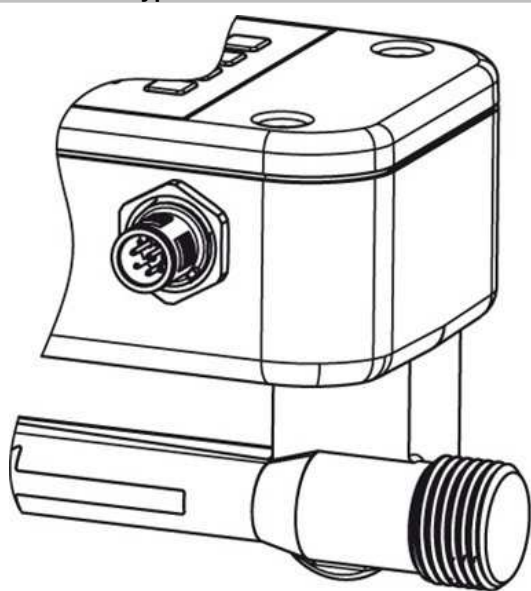
Electrical data

Supply voltage:	18 V DC ... 30 V DC ¹⁾
Residual ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 180 mA ³⁾
Initialization time:	≤ 5 s
Protection class:	III
Electrical connection:	Round connector M12 x 1, 8-pin
Output signal:	Analog output: 4 mA ... 20 mA, 0 mA ... 20 mA current flow and temperature 2 pulse/status output: transistor output for flow rate meter, empty pipe detection, flow monitoring 1 switching input for dosing and counter reset ⁴⁾
Impuls/frequency output:	0 kHz ... 10 kHz
Puls width:	≤ 1 s
Signal voltage HIGH:	Vs - 2 V
Signal voltage LOW:	≤ 2 V
Output current:	< 100 mA ⁵⁾
Inductive load:	1 H
Capacitive load:	100 nF
Response time:	Filter off 100 ms, filter low 300 ms, filter medium 1 s, filter strong 4.2 s ⁶⁾
Output load:	< 500 Ohm
Lower signal level:	3.8 mA ... 4 mA
Upper signal level:	20 mA ... 20.5 mA

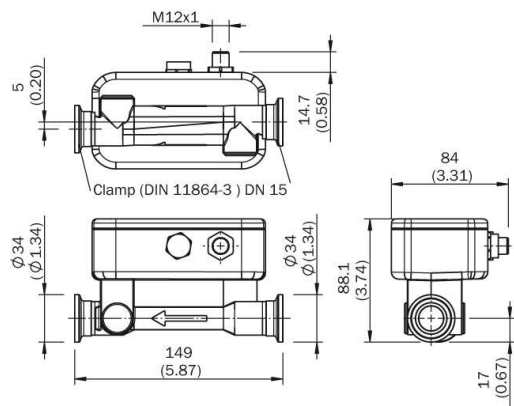
^{1) 4)} All connections are polarity protected. All outputs are overload and short-circuit protected. ²⁾ May not exceed or fall below U_V tolerances ³⁾ Without load ⁵⁾ There are 100 mA for each output pnp and npn available. ⁶⁾ Analog output and display

Ambient data

Ambient temperature operation:	0 °C ... +60 °C
Ambient storage temperature:	-20 °C ... +70 °C



- | | |
|---|---|
| 1 | L+ : Supply voltage |
| 2 | Q1: Digital output PNP/NPN |
| 3 | M: Ground |
| 4 | Q2: Digital output PNP/NPN |
| 5 | QA: Analog current output |
| 6 | C/Q1: With IO-Link: Communication/ switching output 1 |
| 7 | IN1: Digital input |
| 8 | No function |



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