

## Technical data

# Litronic FMS coaxial tube sensor RMH12



The Litronic FMS RMH12 pipe sensor is a so-called „intelligent sensor“, i.e. the internal microprocessor enables complete problem-solving within a single component as well as extended functionality. The sensor transfers all of the relevant factory calibration data to the evaluation and transfer module 8 s after being switched on and following this transfers capacity raw value and both temperatures 30 times per second.

## Features

- direct digital measuring process
- extremely high capacity resolution due to patented measuring circuit
- 30 measurements per second also enable assessment of the dynamic behavior
- automatic reference equalization every second
- temperature-stabilized, regulated quartz time base (TCXO)
- high-resolution temperature measurement and temperature compensation of the liquid
- high-resolution temperature measurement and temperature compensation of the circuit
- extremely high water resolution due to optimum geometry of the coaxial capacitor
- ceramic coaxial capacitor
- high quality stainless steel housing
- resistant to aggressive liquids and to oils
- flow-optimized throughout with even cross-section
- simple process connection
- digital interface and networking
- data-streaming technology with automatic bus arbitration

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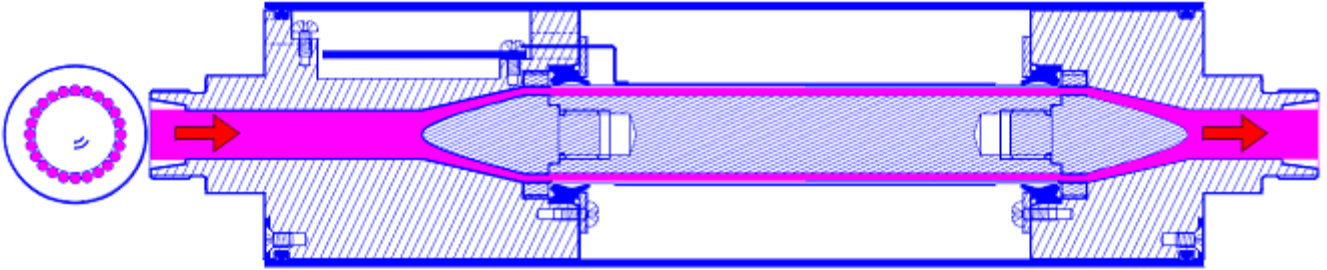
Physical principle	coaxial field in cylinder capacitor
Frequency	20 MHz
Measuring location	pipe diameter 12 mm
Process connection	Ermeto cutting ring screw connection 12 mm, M18x1.5
Measuring range	0 – 100 % water content (measuring window adjustable)
Update cycle	33.33 ms
Max. measuring accuracy	+/- 10 ppm water content <sup>1.)</sup>
Measurement value transfer	digital: RS485, streaming
Max. number of sensors on bus	4
Max. bus length	1200 m
Power supply	12 – 24 V, 0.5 VA
Temperature measuring range	+5 – +90 °C
Temperature measurement accuracy	+/- 0.5 °C
Operating ambient temperature	+5 – +60 °C
Storage temperature	-40 – +60 °C <sup>2.)</sup>
Protection class	IP65
Max. pressure	6 bar
Volume flow rate	5...1200 l/h
Connecting cable type / length	UNITRONIC® ROBUST C 7x0.14 shielded / 6 m
Housing material	V4A (1.4305)
Dimensions: Ø / height	54 mm / 219 (230) mm
Weight without cable	approx. 2.1 kg

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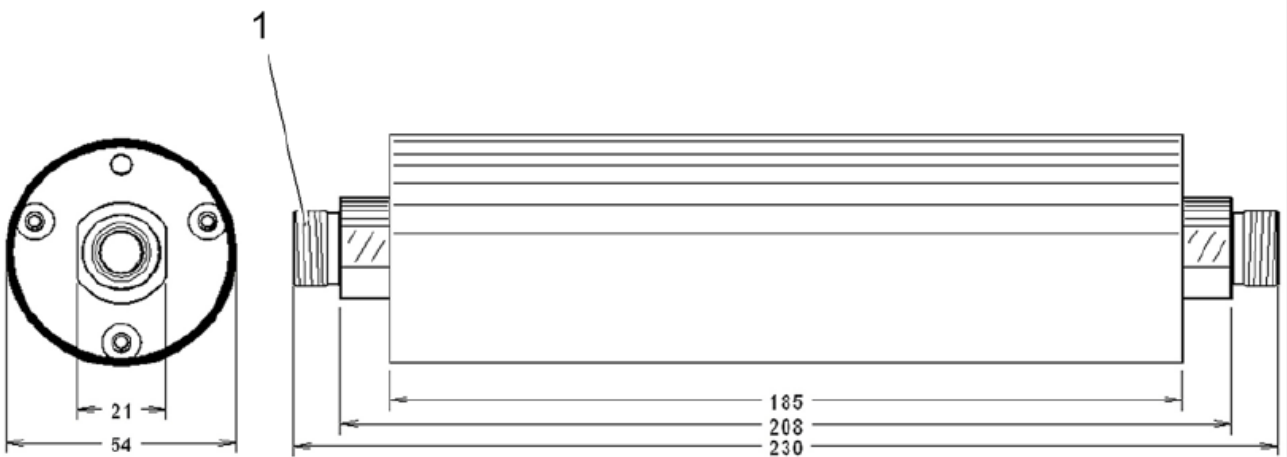
1.) with ideal flow behavior and proper calibration

2.) free of liquid

## Flow:



## Dimensional drawing:



S006133

- 1 cutting ring screw connection 12 mm, M18x1.5