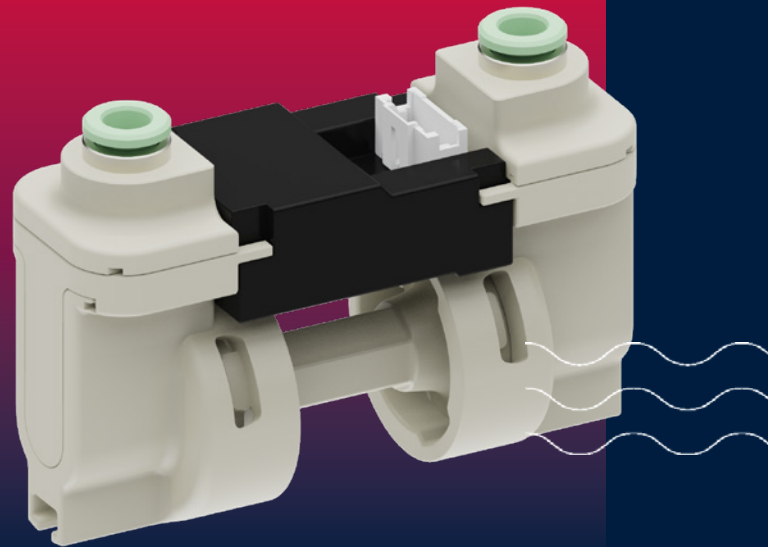


Flow measurement: Accurate, hygienic and contactless. Ultrasonic flow sensor IFS

Product quality and process stability at a highest level. This is what makes the IFS ultrasonic flow sensor so convincing.

The IFS ultrasonic flow sensor measures flow precisely and thus ensures exact metering in the application.



ADVANTAGES



Hygienic design

- Contactless measurement
- Dead space optimized design
- Patented hyperfit® sealing concept



Top performance

- Free pipe cross-section enables full flow
- Precise measurement due to integrated temperature compensation



Integration options

- Various output signals:
- Analog: 0-5 VDC (opt. pulse)
 - Digital: Modbus I²C (incl. interface description)



Fast and precise measurement

- Powerful processor technology
- Measurement evaluation in real time



Wide range of applications

- Water
- Milk
- Syrup
- Others on request

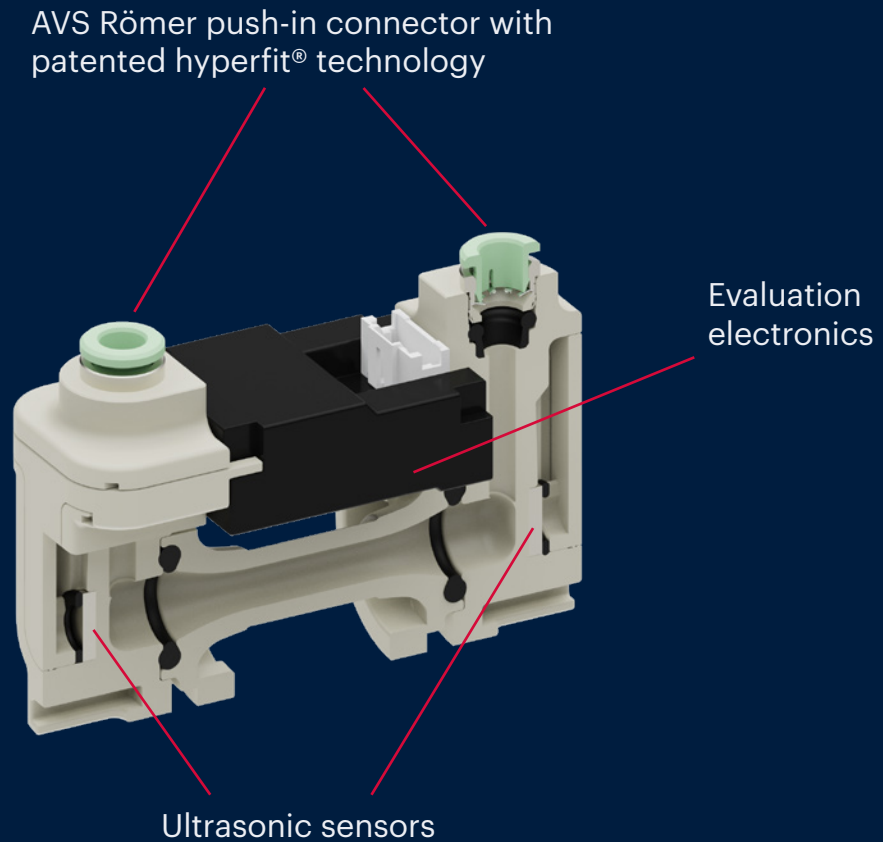


Tailored to your requirements

- Standard option: AVS Römer push-in connector in sizes 4, 6 and 8mm
- Customized solutions on request



Ultrasonic flow sensor IFS



FUNCTIONAL PRINCIPLE

The ultrasonic flow measurement is performed according to the flow time difference method:

$$v_m = (c^2 / 2 \cdot L) \cdot (1/t_1 - 1/t_2)$$

v_m = mean flow velocity

c = sound velocity

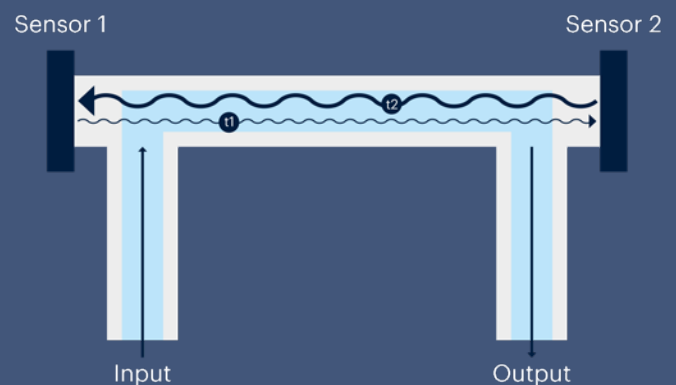
L = Length of the measuring distance between the sensors

t_1 = time from sensor 1 to sensor 2

t_2 = time from sensor 2 to sensor 1

The mean flow velocity and the flow cross-section A give the flow rate Q :

$$Q = v_m \cdot A$$



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