

SONOFLOW CO.56/CO.56 PRO | CLAMP-ON SENSOR

Hybrid FlowBubble Sensor for Medical Devices

PRODUCT BENEFITS

Combined flow measurement and air bubble detection

Highly accurate non-invasive fluid monitoring

Contactless air bubble detection in tubing systems carrying liquids

Specified for medical applications

Integrated electronics, no need for an external electronics board

Serial RS485 interface with MODBus protocol

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SONOFLOW CO.56/CO.56 PRO CLAMP-ON SENSOR – HYBRID FLOWBUBBLE SENSOR FOR MEDICAL DEVICES

The SONOFLOW CO.56 combines two measuring methods in one compact device whereat the sensor measures the flow rate of liquids in flexible tubes and simultaneously detects air bubbles. The product family is specifically designed for use in medical devices and meets the very high safety requirements of the industry.

The implemented electronics board and data processing unit allows an easy integration into the networking architecture of the application. In addition, the RS485 serial protocol enables to operate and connect up to twelve sensors of the SONOFLOW CO.56 sensor series. The non-invasive clamp-on system can be easily applied onto microbiologically sensitive applications. Implementation can be either free-hanging or fixed.

The optional **SONOFLOW Monitor Software** makes computer-assisted parameterization and visualization of the measured values an easy task. Thus, the SONOFLOW CO.56 becomes a truly flexible measurement tool.

Depending on the application, the product line is available in aluminum, customer-specific housing dimensions as well as housing materials and for use with different tubing sizes.

ELECTRONICS & INTERFACES

Built-in electronics board & microprocessor

RS485 MODBus interface for operating up to 12 sensors

MEASURING PRINCIPLE

Highly accurate flow measurement based on the time of flight principle

Bi-directional flow reading

Detection of air bubbles as small as 30% to 50% of inner tube diameter

VERIFIED HARD- & SOFTWARE REQUIREMENTS TO MEET MEDICAL STANDARDS

Fail-safe architecture

Two completely independent measuring channels

Cyclical self-test of all safety-relevant components



Watchdog functionality to monitor the RS485 interface

Technical Data

| | SONOFLOW CO.56 | SONOFLOW CO.56 Pro |
|-----------------------|--|--------------------|
| MEASUREMENT PRINCIPLE | Ultrasound | Ultrasound |
| MEASUREMENT METHOD | Combination of flow measurement and air bubble detection | |
| CHANNEL WIDTH | 3.5 mm to 14 mm | 8.2 mm to 12.3 mm |

| | | |
|-----------------------|---|--|
| OUTER DIAMETER - TUBE | 4 mm to 22 mm | 3/8" to 9/16" |
| MATERIAL - TUBE | PVC, silicone, PTFE, PFA, FEP, TPE, Tygon, PE, etc. | PVC |
| MATERIAL - SENSOR | Aluminum (red, grey) | Aluminum (black) |
| MOUNTING | Fixed installation: 4 threaded holes on rear sensor side | Free-hanging on the tube (lightweight, approx. 100 g) |
| CONNECTION | Cable with M12 connector | Fixed sensor cable |

Downloads

| Type | Title | Size |
|---|-------------------------------|--------|
|  | Data sheet SONOFLOW CO.56 | 567 KB |
|  | Data sheet SONOFLOW CO.56 Pro | 654 KB |

APPLICATIONS

Heart-lung machines

Cardiac support systems

Organ transport systems

Dialysis machines

WORLDWIDE



Do you have any questions?

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