



## SONOFLOW® CO.55 Non-Contact Clamp-On Flow Meters

SONOFLOW clamp-on flow meters are designed for upstream and downstream monitoring in the bioprocess industry. The innovative sensors have integrated electronics which allow them to function without an external board or transmitter, resulting in a compact flow meter in the size of a small transducer. The systems are suitable for applications from small-scale process development through GMP manufacturing to fill and finish operations.



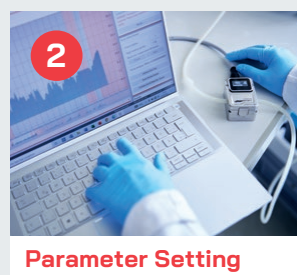
- Highly accurate measurements to improve process performance
- Reduced risk of contamination with non-contact flow sensors
- Small equipment footprint with a compact flow meter
- Sustainable and reusable to reduce waste and costs
- No moving parts to reduce shear stress on cells
- Onsite configuration and calibration via optional C<sup>3</sup> software

### Key Features

- Reliable flow measurement from 10 ml to 200 L / min
- Accuracy of up to 1% when adjusted for customer specific tubing / fluid
- Ideally suited for silicone, TPE, and most standard bioprocess tubing
- Real-time flow measurement
- Volume totalizing and dosing output switch for precise delivery
- Built-in electronics, no external transmitter required



### Intuitive and Easy to Handle



## Technical Data

<b>Measuring Method</b>	Transit-time ultrasound	<b>Operating Voltage</b>	12...30VDC
<b>Measuring Cycle</b>	20ms	<b>Current Consumption</b>	50mA max
<b>Channel Width</b>	3.5...34 mm	<b>Electrical Connection</b>	8-pin M12 connector
<b>Outer Diameter – Tubing</b>	4...35 mm	<b>Ambient / Media Temperature</b>	0...+60 °C
<b>Mounting</b>	Fixed installation	<b>Storage Temperature</b>	-20...+70 °C
<b>Interfaces</b>	4...20 mA, 0...20 kHz, PNP/NPN, RS-485 Modbus, digital input	<b>Protection Class</b>	IP65

## C<sup>3</sup> Software | Configure, Control, Collect

The use of the optional C<sup>3</sup> Software allows for customer specific parameterization and testing.

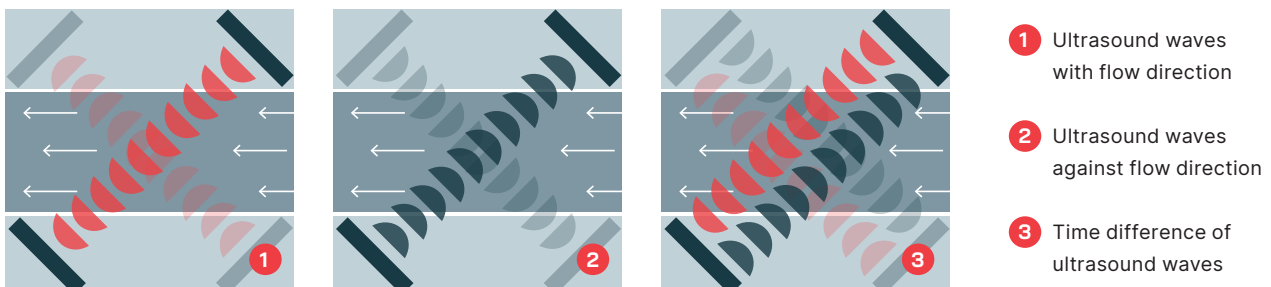
- Configure sensors for different applications
- Control sensor performance and set outputs/inputs
- Collect measurement and sensor data
- Real-time flow monitoring & volume totalizing
- Convenient onsite sensor calibration
- Connection of up to 12 sensors simultaneously



## Measurement Principle

SONOFLOW flow meters use the transit-time ultrasound method to accurately determine the flow rate. The sensor measures the time of flight of the ultrasonic wave with and against the streaming liquid. The time difference between both signals is

a measure of the velocity of the streaming liquid. Measurements are taken in picoseconds and averaged to readings of 10 ms cycle. The fluid velocity and known area of the measurement channel are related to the specific volume flow.



## Sales & Support

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Certified according to  
 ISO 9001 and EN ISO 13485

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 Rev. 3