



- OEM sensor for the non-invasive flow measurement of liquids
- for use on medical tubing in all common sizes
- hanging installation
- high level of customization
- customer-specific calibration (up to seven tables per sensor)

## Technical Specification

<b>Size (H x W x D) &amp; Weight (depending on ID)</b>	25 x 33 x 45 mm; 137 g 27 x 38 x 51 mm; 153 g
<b>Housing and Lid Material</b>	epoxy resin, aluminum, brass
<b>Cable Length</b>	2.9 m ±5 cm
<b>Safety class (IEC60601-1)</b>	dependent on integration and complete system
<b>IP-Code</b>	sensor head and cable: IP67 sensor connector: IP67 in mated condition
<b>Compatibility</b>	to be used in combination with a flow measurement board of the SonoTT™ SkyLark Series
<b>Connector plug</b>	dependent on application and device (D-Sub or round plug)
<b>Acoustic Output Signal</b>	Frequency 2,25 MHz, $p_r < 1 \text{ MPa}$ , $I_{spta} < 20 \text{ mW/cm}^2$ , $I_{ob} < 100 \text{ mW/cm}^2$ , $\Delta T < 0.3 \text{ }^\circ\text{C}$ , $T_I < 1.0$ , $M_I < 1.0$
<b>Expected Product Life</b>	10 years

## Accuracy\* and Drift (in Combination with a SonoTT™ SkyLark)

Flow Range	Accuracy
0 < flow < Qmin	not defined**
Qmin to 1000 ml/min	±100 ml/min
> 1000 ml/min	±7 % of the value ±30 ml/min

### Please note:

\*

- The accuracy stated above can only be guaranteed if the parameters throughout the measurement are the same as the ones the sensor was adjusted and calibrated for (e.g. medium type, medium temperature, tube size, tube material).
- Qmin refers to the minimum flow value for which the accuracy is specified.
- Qmax refers to the maximum flow value for which the accuracy is specified.

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- While a measurement is possible within this range, there is no accuracy defined for it.

## Adjustment and Calibration

<b>Recommended tube type</b>	flexible, non-reinforced tubing, e.g. silicone, PVC
<b>Medium type</b>	liquids such as water, purified water, salines solutions, blood, blood substitutes, and most dialysis-, infusion, and irrigation solutions <b>Please note:</b> Due to safety and hygenic reasons, the adjustment is carried out using water.
<b>Medium Operating Temperature</b>	4 °C to 45 °C (40 °F to 113 °F)
<b>Calibration Tables</b>	up to seven calibration tables can be stored to each sensor plug for different applications

## Range of SonoTT™ Clamp-On SLs and Their Flow Measurement Range

Type	Qmin***	Qmax***	Tube Size (inner diameter (ID) x wall thickness (WT))
MCT 1/8" x 1/16"	100 ml/min	2 500 ml/min	1/8" x 1/16"
MCT 6.8 mm	100 ml/min	±6 000 ml/min	6.8 mm outer diameter
MCT 3/16" x 1/16"	100 ml/min	±6 000 ml/min	3/16" x 1/16"
MCT 1/4" x 3/32"	120 ml/min	±8 000 ml/min	1/4" x 3/32"
MCT 1/4" x 1/16"	120 ml/min	±8 000 ml/min	1/4" x 1/16"
MCT 3/8" x 1/16"	150 ml/min	±10 000 ml/min	3/8" x 1/16"
MCT 3/8" x 3/32"	150 ml/min	±10 000 ml/min	3/8" x 3/32"
MCT 1/2" x 3/32"	300 ml/min	±20 000 ml/min	1/2" x 3/32"

### \*\*\*Please note:

While a measurement is generally possible outside the measurement range indicated above, the accuracy is only defined for the flow values stated under "Accuracy in Combination with the SonoTT™ SkyLark".

## Ambient Conditions during Transport, Storage, and Operation

### Transport and Storage

Atmospheric Pressure	70 kPa to 106 kPa
Temperature Range	-20 °C to 55 °C (-4 °F to 131 °F)
Relative Humidity	10 % to 96 % (non-condensing)

### Operation

Atmospheric Pressure	70 kPa to 106 kPa
Operating Altitude	up to 3 000 m (9842 feet)
Temperature Range	10 °C to 40 °C (50 °F to 104 °F)
Relative Humidity	10 % to 96 % (non-condensing)

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