SONO-ES MIX MINI LD HT

Compact rectangular high temperature probe for the measurement of the moisture content of heterogeneous bulk goods that feature a low density within an approximate range of 0.3kg/dm³ to 1.0kg/dm³.

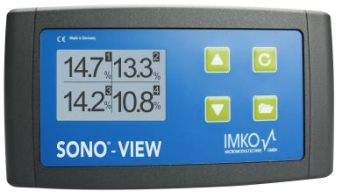
Capable of measuring within a temperature range of up to 120°C on a permanent basis, and up to 150°C on a short-term basis.

Measuring the moisture content of materials with low density at a high temperature with state-of-the-art technology and at the speed of light. Our SONO probe stands out with the following performance features:

- Precise measurement values through a representative measurement field and a disc-shaped radar scan.
- Robust probe body made of high grade steel V2A and special ceramic.
- Up to 15 different material calibration curves are stored directly in the probe.
- Ideally suited for bulk goods with low density, such as granulates, powders, grains, and oilseeds, etc.
- Integrated signal processing and evaluation with intelligent filter algorithms directly in the probe.
- No further evaluation equipment is required.
- Ideal for the integration into containers, material hoppers, conveying lines and screw conveyors, as well as fluid bed dryers.
- Highest level of reliability due to radar technology.

SONO-probes are not based on micro-wave technology! They stand out with novel and innovative performance features: http://imko.de/de/support/publications „Comparison SONO-Micro-Wave“

Technical Data SONO-ES MIX MINI LD HT

Probe Version	**Assembly**
- SONO-ES Measuring Transformer - SONO-MIX MINI LD High Temperature Probe Head, Casing, High Grade Steel V2A	Probe Dimensions: 135 x 60 x 40 (Length x Width x Height) Measure Window Size: 90 x 36mm (Length x Width)
Humidity Measurement Range	**Measurement Range: Conductivity/Temperature/Standard deviation**
The probe measures from 0% right up to material saturation. Adjustable moisture measurement ranges up to 100 % are possible with special calibrations. The moisture value is issued at the Analog Output 1.	Depending on the selection, the probe delivers the following values at the Analog Output 2: A) Radar-based conductivity value (EC-TRIME) of 0…10dS/m, B) Material temperature measured at the probe surface. Measuring range material temperature: 0°C …120°C, C) Standard deviation for regulation purposes.
Measuring Field Extension	**Measuring Values Preprocessing**
Approximately 50 - 80 mm, depending on the material and the moisture content.	Five different operating modes with standard- or floating point mean value formation. Kalman filter algorithms with dynamization and further performance features.
Power Supply	**Ambient Conditions**
+7V to maximum +24V DC 3 W maximum	120°C on a permanent basis, 150°C on short-term basis.
Signal Output	**Probe Connection**
2x Analog outputs 0(4) 20mA Output 1: Humidity, variably adjustable in %. Output 2: depending on selection, conductivity, (EC-TRIME, resp. RbC), temperature or standard deviation.	The SONO-MIX MINI LD is equipped with a robust 10-pole MIL flange plug. The connection to the SONO-MIX MINI LD is performed without plug using a cable and a PG screw connection. The connection cable is available in lengths of 4, 10 or 25 meters.
Communication	**Calibration**
A serial RS485 interface or the IMP bus enables networked operation of the probe, whereby a data bus log for the connection of several SONO probes at the interface is installed by default.	The delivery scope of the probe includes a suited calibration curve. A maximum of 15 different calibration curves can be stored. For special materials, variable calibrations with polynomial functions up to the 5th degree are possible and can be uploaded into the probe with the software SONO-CONFIG. A zero-point correction can be performed via the software SONO-CONFIG or the display module SONO-VIEW.
Optional:	
	**SONO-VIEW** Stand-alone display and configuration for reliable process control with SONO- or TRIME humidity probes. Up to four SONO probes can be connected online via a serial interface. It serves for the display of the measurement data, setting of operating mode, selection of the calibration curve, as well as other functions.