

Ultrasonic coating thickness measurement **QuintSonic T**

Mobile measuring system

for measurement of paint,
lacquer and plastic coatings
on plastic, metal, wood,
ceramic or glass substrates



QuintSonic T

Precision through Innovative Technology

Application

QuintSonic T is an ultrasonic system for coating thickness measurement of paint, lacquer and plastic layers applied on:

- plastic
- metal
- wood
- glass
- ceramic
- GRP and CRP

Up to eight layers can be measured non-destructively in one operation.

QuintSonic T offers a wide range of possible applications, for example in the automotive industry, in aircraft construction and many other branches of industry: wherever precision is the top priority in quality assurance.

Measuring principle

QuintSonic T is composed of an intelligent ultrasonic sensor for coating thickness measurement, which is connected to an industrial tablet as evaluation unit. The sensor acts both as a transmitter and a receiver in which an ultrasonic pulse is transmitted into the coating system by means of a coupling medium and the signals reflected at the interfaces of the individual layers are received. The transit times of these ultrasonic pulses are evaluated and converted into the corresponding layer thicknesses.

Technical data

Measuring range	max 6900 µm / max. 271.65 mils (adjustable in ranges of 400 µm / 15.75 mils, 900 µm / 35.5 mils, 1900 µm / 74.8 mils, 3900 µm / 153.5 mils for a velocity of bei 2375 m/s / 1.475 miles/second for all layers in order achieve most precise scanning)
Minimum layer thickness	Approx. 10 µm / 0.4 mils (depending on the velocity of the material to be measured)
Minimum area for measurement	5 mm Ø / 0.2 inch Ø (contact area 11 mm Ø / 0.44 inch Ø)
Resolution	0,1 µm / 0.004 mils
Accuracy	± (1 µm / 0,04 mils + 1 %) of reading provided calibration was effected with a cross cut standard
Calibration	Calibration of sound velocity for up to eight layers
Operating temperature	+5...+50°C / +41...+122°F
Storage temperature	-10...+50°C / +14...+122°C

Evaluation

The convenient evaluation and data management software not only offers direct display of A-scans for analysis of the echo signals on the tablet display. Furthermore, all available parameters can be edited and set comfortably and easily by the user.

In addition, the software allows storage of the individual A-scans for subsequent adjustment of e.g. clipping domains or blocked domains.

The comprehensive data management of measuring values features data output in text and Excel format as well as creation of complete measurement reports in pdf format. The integration of descriptive texts and photos supports the documentation of measurement data.

Standard supply

- QuintSonic SIDSP® sensor
- SIDSP® sensor cable
- Industrial tablet equipped with evaluation software
- Tablet stand
- Operating instructions
- Control standard (one layer)
- Plastic carrying case
- 1 bottle aqua dest (couplant), 3.38 oz
- 1 bottle ElektroPhysik coupling gel, 7.05 oz



ElektroPhysik

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