ADVANCED ULTRASONIC A-/B-SCAN WALL THICKNESS GAGE
SONOWALL 70
FOR NONDESTRUCTIVE TESTING

MADE IN GERMANY

CORROSION MODULE
THROUGH COAT MEASUREMENT
OPTIONAL FLAW DETECTOR UPGRADE
IDEAL FOR ROPE ACCESS APPLICATIONS
COMPACT & POWERFUL FOR FIELD USE
The powerful SONOWALL 70 is perfect for a wide range of ultrasonic wall thickness measurement applications including standard testing of metals, glass and ceramics. In high penetration mode high attenuating materials and structures become possible to measure such as composites, plastics, rubber, fiberglass or thick castings. The SONOWALL 70 is capable of measuring rough materials, through coatings and even objects with multiple layers with separate measurements for each layer of different material. The precision module of the device can measure very thin materials with a high resolution. Via time encoded B-scan you can display a detailed cross section of the tested specimen along one axis.

A wide selection of SONOTEC probes and the fact that other manufacturer’s probes can be connected easily makes the SONOWALL 70 the most versatile wall thickness device on the market.

**CORROSION MODULE FOR EFFICIENT MATRIX DATA ACQUISITION AND REPORTING**

Corrosion surveys are one of the most popular applications for the thickness gaging in the industry. Most often those surveys are performed by certain grids in order to obtain a clear picture of corrosion in a certain area. To help organize the readings and improve the visualization of the material condition SONOWALL 70 is therefore equipped with the corrosion module.

**Features:**
- Intuitive grid of the test path
- Save measured points by one click
- Automatic grid repetition after last measurement
- Color coded grid visualization according to selected limits
- Differential & percentage value of wall loss
- Fully customizable survey report in CSV

**Benefits:**
- Effective and accurate measurements
- Fast Data logging
- Clear visualization of all measuring points
- Avoiding mistakes: measured points are colored
- Points can be measured selectively anew
- Fast and convenient reporting
Rotary knob and 4 soft keys – for rapid, streamlined operation and easy access to all functions in left- and right-handed usage

Custom function soft key

2x LEMO-00

Wireless probe recognition SONO-ID

Rubber protection and grip

High resolution anti-glare 5” graphic display (800 x 480 px), color scheme selectable

Customizable display of measurement values

Largest A-scan presentation in its class:
- Horizontal: 34 x 63 mm
- Landscape: 43 x 100 mm
- Full screen: 110 x 66 mm

Comfortable reading with a selectable filled A-Scan

Robust aluminum housing

IP67 certified

Measurement context, tester and test object at a glance

Short cut function for fast access to all relevant settings

Drop tested according to EN 60068-2-31 (2008); 20 Drops

Mini USB port, microSD, Power supply
The SONOWALL 70 can be used in two operating modes - wall thickness mode and flaw detector mode. Both software modes can easily be updated vice versa and include:

- DGS
- DAC with TCG
- AWS D1.1
- Backwall echo attenuation
- Automatic gates
- SONO-ID
- CSV reporting

OPTIONAL UPDATE TO FULL FUNCTION FLAW DETECTOR

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- Backwall echo attenuation
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EVERYTHING YOU NEED

- Echo-echo & single-echo mode
- Corrosion modul
- Through-coat measurement
- High penetration and precision mode
- Multi-layer measurement
- Time encoded B-scan
- CSV report generation
- Video output
- Single & dual element probe operation
- Flaw detector upgrade

VIDEO TUTORIALS

Watch our SONOWALL 70 video tutorials and get to know more about its broad functions:

https://www.youtube.com/SONOTECGmbH

ACCESSORIES

SONOWALL 70

- Handstrap for ergonomic single hand operation
- Desktop stand - ideal for inside use and calibrations
- Transport case including space for accessories
- 4-point working harness for longterm operation (sold separately)
APPLICATIONS: INDUSTRIES, MATERIALS AND STRUCTURES

- Metals
- CFRP & GFRP
- Plastics
- Composites
- Rubber

- Corrosion monitoring
- Maintenance checks
- Abrasion monitoring
- Testing of castings and forgings
- Sound velocity measurement
## SONOSCAN ULTRASONIC PROBES

We offer an extensive range of different SONOSCAN standard pulse echo and dual element probes as well as probes with SONO-ID for wireless probe recognition.

Via SONO-ID you can recall test setups extremely fast and have the equipment ready to work in seconds.

Simply choose the probe that matches your application from our product range.

<table>
<thead>
<tr>
<th>Probe</th>
<th>Frequency</th>
<th>Element Size</th>
<th>Measuring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL1</td>
<td>1 MHz</td>
<td>Ø 24 mm</td>
<td>20 to 2000 mm</td>
</tr>
<tr>
<td>PS2</td>
<td>2 MHz</td>
<td>Ø 10 mm</td>
<td>6 to 1000 mm</td>
</tr>
<tr>
<td>TS2</td>
<td>2 MHz</td>
<td>Ø 11/2 mm</td>
<td>5 to 800 mm</td>
</tr>
<tr>
<td>TL2</td>
<td>2 MHz</td>
<td>7 x 18 mm</td>
<td>10 to 1500 mm</td>
</tr>
<tr>
<td>PS4</td>
<td>4 MHz</td>
<td>Ø 10 mm</td>
<td>4 to 600 mm</td>
</tr>
<tr>
<td>TS4</td>
<td>4 MHz</td>
<td>3.5 x 10 mm</td>
<td>2 to 500 mm</td>
</tr>
<tr>
<td>TS5</td>
<td>5 MHz</td>
<td>Ø 12/2 mm</td>
<td>1 to 400 mm</td>
</tr>
<tr>
<td>TXS75</td>
<td>7.5 MHz</td>
<td>Ø 8/2 mm</td>
<td>0.8 to 50 mm</td>
</tr>
<tr>
<td>PXS10</td>
<td>10 MHz</td>
<td>Ø 6 mm</td>
<td>0.6 to 100 mm</td>
</tr>
</tbody>
</table>

### FAST SERVICE & PROFESSIONAL SUPPORT

<table>
<thead>
<tr>
<th>Standards</th>
<th>DIN EN 15317, ASTM E 1324, ASTM E 317</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>-20 to +60 °C</td>
</tr>
<tr>
<td>Screen</td>
<td>5&quot; TFT Screen, 800 x 480 pixels, 60 Hz</td>
</tr>
<tr>
<td>Measurement methods</td>
<td>Single-Echo, Echo-Echo</td>
</tr>
<tr>
<td>Size (W x H x D)</td>
<td>195 x 115 x 40 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>990 g</td>
</tr>
<tr>
<td>Case</td>
<td>Aluminum</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 67</td>
</tr>
<tr>
<td>Battery</td>
<td>Li-Ion, up to 12h operation</td>
</tr>
<tr>
<td>Wireless probe recognition</td>
<td>Available for selected SONOSCAN probes via SONO-ID</td>
</tr>
<tr>
<td>Internal memory</td>
<td>16 GB</td>
</tr>
<tr>
<td>Memory card</td>
<td>microSD up to 128 GB</td>
</tr>
<tr>
<td>Video output</td>
<td>Adapter to LDVS, DVI or HDMI</td>
</tr>
<tr>
<td>Reporting</td>
<td>JPEG, PNG, CSV report files</td>
</tr>
<tr>
<td>Transmitter</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>0.5 to 15 MHz (up to 30 MHz optional)</td>
</tr>
<tr>
<td>Pulse</td>
<td>Negative rectangle (single pulse)</td>
</tr>
<tr>
<td>Pulse width</td>
<td>20 to 500 ns, in steps of 5 ns</td>
</tr>
<tr>
<td>Amplitude</td>
<td>0 to 400 V, in steps of 10 V</td>
</tr>
<tr>
<td>Damping</td>
<td>50 Ohm; 400 Ohm</td>
</tr>
<tr>
<td>Receiver</td>
<td></td>
</tr>
<tr>
<td>Dynamic range</td>
<td>Up to 130 dB</td>
</tr>
<tr>
<td>Amplifier bandwidth</td>
<td>0.2 to 20 MHz</td>
</tr>
<tr>
<td>Digital filters</td>
<td>1/2/4/5/10/15/0.5-20 MHz</td>
</tr>
<tr>
<td>Input impedance</td>
<td>500 Ohm (in T/R-mode)</td>
</tr>
<tr>
<td>Probes compatibility</td>
<td>Single and dual element (manufacturer independent)</td>
</tr>
<tr>
<td>Resolution</td>
<td>Up to 0.001 mm or 0.0001 &quot;</td>
</tr>
<tr>
<td>Scan</td>
<td>100 MSps @ 12 Bit</td>
</tr>
<tr>
<td>Gates</td>
<td>Auto-Gate function for gate 1+2 Gate 3+4 only available in multi-layer mode</td>
</tr>
<tr>
<td>Measurement range</td>
<td>Up to 10,000 mm</td>
</tr>
<tr>
<td>Probe connectors</td>
<td>2x LEMO (IP 67 compliant)</td>
</tr>
</tbody>
</table>
| Functionalities | • V/W error correction  
• Automatic gates  
• Subsequent measurement of frozen A-scan  
• High penetration mode  
• Differential and % wall loss  
• Time encoded B-scan option  
• Temperature compensation  
• Through-coat measurement  
• Multi-layer measurement  
• Sound velocity measurement |