

DIGITAL ULTRASONIC FLAW DETECTOR

CODE UFD-T680

- The all-aluminum metal shell is strong and durable, and the electromagnetic shielding performance is very good
- Tempered glass panel, extremely hard, wear-resistant and scratch-resistant
- Full-digital multi-color high resolution (640×480 pixels) TFT LCD display
- 4 operating interface styles can be selected according to the environment
- Real-time screenshots of all pages and flaw detection reports, and save them as BMP pictures to U disk
- Export the flaw detection report as a PDF file
- Unique Fn multifunction key design
- There is no limit of the number and duration of video recording through U disk.
- Memory of 500 channel files to store calibration setups and probe parameter
- Memory of 1000 wave report files to store A-Scan wave and settings.
- Two fully independent gates offer a range of measurement options for signal height or distance using peak triggering.
- Can choose to set the incoming wave alarm or lost wave alarm, accompanied by LED light display
- Selectable frequency ranges (automatically set by the instrument) to match probe for optimum performance.
- The unique automatic gain adjustment and gain scanning function make flaw detection fast and accurate



straight-beam probe
(included)



angle-beam probe
(included)



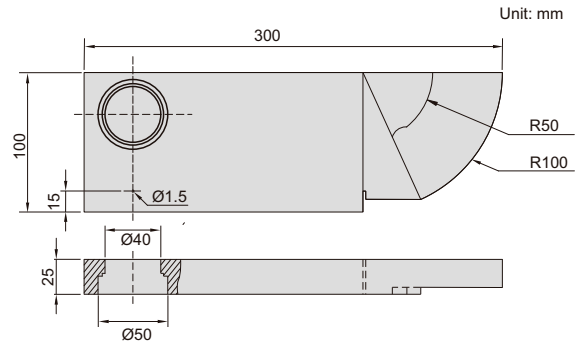
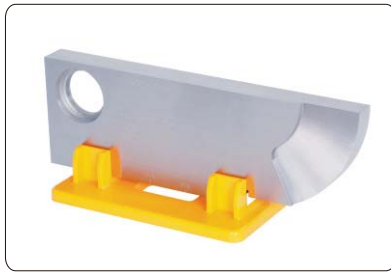
USB disk
(included)



couplant
(included)

FUNCTIONS

Flaw detection standard	Built-in common flaw detection standards, direct call, convenient and fast
Auto calibration	Automatic calibration of probe zero offset, probe angle (K value) and material velocity
Peak hold	Compare frozen peak waveforms to live A-Scans to easily interpret test results
Flaw locating	Live display sound-path, projection (surface distance), depth, amplitude
Flaw discrimination	Automatic flaw sizing using AVG or DAC, speeds reporting of defect acceptance or rejection
Flaw sizing	The equivalent dB value of defects or equivalent size of defects are displayed in real time
Curved surface correction	Used for flaw detection of curved workpiece, it can display the circumferential position of defects in real time
DAC/AVG	The curve is automatically generated, and the sampling points can be compensated and corrected. The curve automatically floats with the gain, automatically expands with the detection distance, and automatically moves with the delay time. It can display the AVG curve of any aperture
AWS D1.1	Choosing this standard can reduce manual calculations and improve detection efficiency
Weld diagram	Support V type, T type, L type and other weld types, acoustic path navigation real-time display, weld and defect location real-time display, scaling, easy to locate defects
Automatic rating	Select different AWS standards, automatically calculate the rating of defects and display
Crack height	The crack height is measured and calculated automatically by the diffracted wave at the end
Gate magnify	Spreading of the gate range over the entire screen width
Continuous record	Video recording and playback
Echo coding	Display 1~9 echo display area in different colors, used to analyze the defect position
Scan freeze	Display freeze holds waveform and test distance data
Peak mark	Capture and mark the peak in real time
B scan	Intuitively display the defect shape of the workpiece and the detection result is more intuitive



Unit: mm

calibration block (optional)

SPECIFICATION

Measuring range	0~15000mm
Working frequency	0.2~20MHz
Material velocity	100~20000m/s
Repetition frequency	20~2000Hz
Dynamic range	≥36dB
Vertical linearity	≤1.5%
Horizontal linearity	≤0.1%
Resolving power	>42dB
Sensitivity leavings	>65dB
Suppression	0~80%
Noise	≤10%
Probe selection	single crystal probe, dual crystal probe, penetrating probe, climbing probe
Pulse energy	100V, 200V, 250V, 300V, 350V, 400V, 450V, 500V (selectable)
Pulse width	30ns-510ns
Probe damping	50Ω, 150Ω, 250Ω, 500Ω (selectable)
Rectification	Positive half wave, negative half wave, full wave, RF
Gates	Two independent gates controllable over entire sweep range
Interface	USB 2.0
Operating temperature	-10~50°C
Relative humidity	20~95%RH
Power	build-in rechargeable battery
Size	263×170×61mm
Weight	1.92kg

STANDARD DELIVERY

Main unit	1 pc
Single-element straight probe UFD-T60	1 pc
Single-element angle probe UFD-T61	1 pc
USB cable	1 pc
Couplant	1 bottle
Probe connecting cable	1 pc
USB disk	1 pc
Power adapter	1 pc

OPTIONAL ACCESSORY

calibration block	UFD-CSK1
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SPECIFICATION OF PROBE

Code	Frequency	Size	Probe type	Transducer sensor Angle
UFD-T60 (included)	2.5MHz	Ø20mm	Single-element straight probe	90°
UFD-T61 (included)	4.0MHz	8x9mm	Single-element angle probe	60°
UFD-T62 (optional)	5.0MHz	Ø10mm	Dual-element straight probe	90°
UFD-T63 (optional)	5.0MHz	Ø10mm	Single-element straight probe	90°
UFD-T64 (optional)	4.0MHz	8x9mm	Single-element angle probe	45°
UFD-T65 (optional)	4.0MHz	8x9mm	Single-element angle probe	70°

Note: Other types of the probes are available