



## **Ultrasonic Flaw Detector**

UFD-X5

#### **X Series : High Performance**

UFD X series Ultrasonic Flaw Detector could meet a variety of demands with superior features, which include portable, flexible, rapid and accurate.

High cost effective makes X series be the best choice for developing companies.

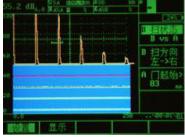




Feature Indicator



Value Display Area



Two Dimension Color Code B Scan



### FFS | HE | 192 | 193

DAC Curve

DGS Curve

#### **FEATURES:**

- One Function Key, Easily Operate
- Ideal Menu Style
- Auto Calibration : Velocity, Probe Delay, Angle/K Value

#### **FUNCTION:**

- USB for storage, plug and play Convenient to read thickness values
- B Scan-Display Flaws Directly Reducing analysis difficulty, missing detector
- Massive Data Memory 200,000 values/5 minutes video
- Electronic Choice: Flaw detector together with high accurate thickness measured
- 5 Intelligent DAC curves, comply to JIS and API standard

#### **OPERATION**

- High Accuracy: 10 places for AD samples
- Extra-long Standby Time: 20 hours, getting rid of trouble from battery
- Display screen could be adjusted to provide 5 optimum brightness
- Magnesium alloy case, AP65 encapsulation, strong and durable, avoiding electro-magnetic interference



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#### **SPECIFICATIONS**

#### **Measuring Range**

1.0~12000mm

#### Resolution

0.01 mm (< 100 mm)

1mm(>100mm)

#### Velocity

500~20000m/s

20 fixed velocities

#### Delay

-20~3400us /resolution : 0.1us

#### **Probe Delay**

0~99us /resolution: 0.01us

#### **Auto Calibration**

Velocity Calibration & Probe Delay

Calibration

#### Linear Error

Horizontal error≤0.1% Vertical error≤3%

#### **Dynamic Range**

≥36dB

#### Sensitivity

>64dB 200mmΦ2 flat-bottomed hole

#### Dimension (mm)

240×180×50mm

#### Weight

1.9Kg (including battery pack)

#### **Working Environment**

Temperature: -20°C~70°C

Humidity: 5%∼90%

#### Pulse

#### **Dive Pulse**

Negative spikes, high energy/low

adjustable

#### **Launch Repetition Frequency**

PFR transmit pulse continuously

adjustable

#### **Matched Damp**

 $50/150/400\Omega$ 

#### Receiver

#### Measuring mode

Peak/Verge

#### Bandwidth

0.3~1/0.5~4/2~15MHZ

**Detector Pattern** 

0/0.1/0.2/0.5/1/2/6/12/

0~110dB

#### **Detector Pattern**

RF/Full-Wave/Positive/Negative/

half-wave

#### **Display**

#### **LCD**

TFT Color Display 5 options for variable brightness

#### **GUI Theme**

#### Simple/Classical/Gray/Bright

**Screen Update Rate** ≥60Hz

#### **GUI Theme**

simple / classical / gray / strong / weak light 5, the user can through the set text A, background color, sweep waveform coordinate free custom theme

#### Gate / measuring value / alarm

#### Sluice gate

Two Separated Gate A/B

#### Measured value display

5 measured value display area, where a main display area,

Selectable measurement value content SA/SB/DA/DB/PA/PB/A%A/A%B/dBtA/ dBtB/dBrA/dBrB/SBA/DBA/PBA/LA/LB

Independent logic gate alarm, alarm threshold thickness measurement

#### Storage

<b>Channel Parameters</b>	20 groups
Scan A	2000

### Thickness values

200,000 data, liner

Communication

Wave video	5 min
Reference wave	4
Input / Output	
<b>Probe connector</b>	LEMO or BNC

RS232

#### Regional

Clock date and time

Language	English
Unit	mm/inch

## **Battery**

#### **Battery**

High-energy lithium batteries, excellent overcharge and over-discharge protection

#### **Battery Monitoring**

Coulomb energy measurement based on battery monitoring, the percentage / time display the remaining battery life

#### **Working Hours**

work continuously for more than 10 hours

#### **Battery Adapter**

Input: 100~240V/50~60Hz

Output: 9VDC/4A

### High ranking

#### U disk storage

Storage screenshots / waveform / thickness three data report

#### **Gate broadening**

Gate area of concern for the details of observation and analysis

#### B-scan two-dimensional coding

Thickness / contour scanning; grayscale / color palette settings

#### **Curve freeze** YES

#### Characteristic indicator

Sound path measurement wave front and amplitude measurement position indicator

#### **CSC Surface Correction**

According probe angle, diameter of the work piece thickness and curvature correction for the measured values

Each menu can be locked independently to avoid system-related parameter adjustment; data set can also be locked to avoid accidental deletion of data

## **Screen Saver**

Standby / Text / off

#### **Equivalent curve**

#### DAC curve

Can record 30 calibration points; Automatic Gain; any order calibration;



# NDT expert Solid (Beijing) Technology Co., Ltd.

calibration / edit two modified methods; consider the material attenuation and surface compensation factor; five adjustable gain curve to assess compliance with JIS and API Standards

#### DGS curve

For large flat-bottomed, flat-bottomed hole via three reference types, consider a reference attenuation, attenuation and surface material compensation factors, defect assessment methods: equivalent size / equivalent gain / percentage

Standard			
Main engine		1	
Straight / angle probe		2	
Probe line		1	
Charger		1	
Battery		1	
Optional		Instructions	1
		Box	1
		Coupling paste	1

Interface Gate		
Intermediate medium for flooding		
situation testing		
Printer		
TP serial printer, you can print directly		
screenshots / waveform / thickness of the		
three data report		
Large capacity battery		
Can work continuously for more than 20		
hours		
Communication		
USB		