

Ultrasonic Flaw Detector (0-10,000)

UEE981S

Product Description

Flaw detection is the process of identifying and sizing sub-surface defects in materials. One of the most common techniques to identify defects is ultrasonic inspection where sound waves, propagated through the material, are used to identify such anomalies.

Our Ultrasonic Flaw Detectors offer a quick and accurate detection, positioning, evaluation and diagnosis of various flaws in the work-piece, such as welding cracks, defects etc.

Widely used in steel structure industry, electric power, petrochemical, boiler and pressure vessels, railway transportation, automobiles, machinery and other fields



Standards

- EN 12668-1

Technical Specification

- IP65, portable and ultra-thin design
- Meets the requirements of EN 12668-1
- Square wave pulser, PRF up to 3 kHz for fast scanning / detecting
- High-speed sampling for clear and stable echo diagram with all details
- High numbers of digital filters, suitable for nearly any application
- Anti-noise design, high signal-to-noise ratio, perfect for tough working conditions
- With standard DAC/TCG/DGS/AVG function, Color B-Scan
- Built-in standards, AWS D1.1/D1.5 tools, flaw detection video recording
- Reports can be automatically formed and viewed on the equipment
- PC Connection / Bluetooth connection to mobile for data management and reports printing on-site
- Storage: 1000 groups of data (expandable): External USB for direct storage (unlimited memory)
- Battery life > 10 hours, with fast, independent charging control
- Languages: English (Expandable to German, Spanish, Korean, Turkish, etc)

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Technical Parameters:

Model	Uee918S(mart)	Uee980(ptimum)	Uee981E(xpert)
Scan Range (mm)	0~10000 mm	0~12000m	0~15000mm
Velocity Range (m/s)	1000~15000	500~18000	100~20000
Gain Range (dB)	110dB	120dB	120dB
Operating Frequency	0.2~20Mhz	0.2~25Mhz	0.2~35Mhz
Pulse Repetition Frequency	10~1500Hz	10~2500Hz	10~3000Hz
Vertical linearity error	<2.5%	<2.5%	<2.5%
Horizontal linearity error	<0.2%	<0.2%	<0.2%
Sampling Frequency	150Mhz	200Mhz	320Mhz
Transducer Frequency Max.	15Mhz	20Mhz	30Mhz
Dynamic Range	>38dB	>38dB	>38dB
Resolution	>40dB	>40dB	>40dB
Testing Sensitivity	>65db	>65db	>65db
Pulse Amplitude	100-500V	100-500V	100-500V
Pulse Width	0.03~0.51μs	0.03~0.51μs	0.03~0.51μs
Transducer Damping	50Ω~400Ω	50Ω~400Ω	50Ω~400Ω
Interface for Probe Cable	BNC (opt. LEMO)	BNC (opt. LEMO)	BNC (opt. LEMO)
Working Mode	100-240V: Straight/Angle/Dual crystal probe, Penetrating detection, etc		
Power Supply	100-240V 50-60Hz; DC 9V Rechargeable Li-ion battery, 10+hours life		
Dimension & Weight	Dimension 240x153x38mm; nett weight 0.98kg (with Li-ion battery)		
Environment	Temperature -10~50°C, Humidity 20~95%RH		

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Main Technical Parameters

Configuration:

Function	Uee981S	Uee981O	Uee981E
Square wave pulser	•	•	•
DAC / DGS / AVG diagram	•	•	•
TCG		•	•
Color B-Scan		•	•
AWS			•
Automatic Calibration (V2)	•	•	•
PC Connection	•	•	•
Bluetooth Connection		•	•
External Storage (USB)	•	•	•
Detection Video		•	•

Standard delivery:

- Main unit
- Probe and Cable (2 pcs)
- PC Software
- Mobile App (Uee981/981E only)
- IIW V2 Block (Uee981E only)
- Carry strap
- Power Adapter & Battery
- Manual
- Certificate & Documents
- ABS Instruments Box

Disclaimer

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice

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