



Welding Ultrasonic Flaw Detector

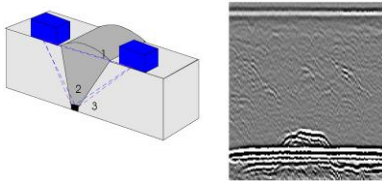
UFD-Z6W

Z series:

Z series Ultrasonic Flaw Detector is a superior, rapid, professional and portable detector.

UFD-Z series apply square technique, it could meet any demand.

Superior performance combined with our own characteristic perfectly, response fast, digital content simulated experience, comfortable sense of avoiding to clutter disturb. it will detect flaw follows your idea, just like your sixth feelings, Z series is a portable detecting work station.



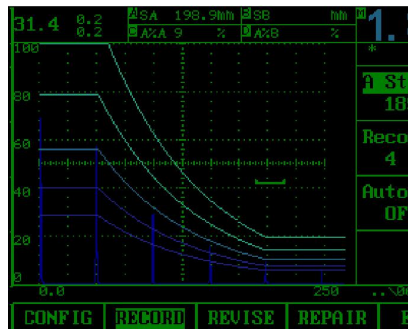
time-of-flight diffraction technique (TOFD)



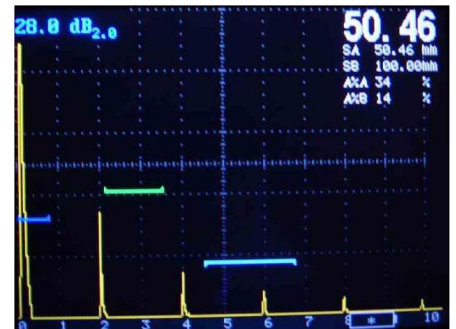
typical indication

Unique Function:

- Weld Professional Color Screen Digital Ultrasonic Flaw Detector
- TOFD (Time of Flight Diffraction), showing two-dimensional image, measuring height and depth of flaw.
- Weld profile indicated directly
- Comply to USA GB11345/JB4730 standard.
- AWS: the American welding society standard AWS D1.1 / D1.5
- echo coding techniques can be intuitive to obtain the position of the defect in multiple echo
- Showing intuitive analysis for welds profile



A-scan in the normal mode



A-scan in the zoom mode

Specification :

Measuring range	1.0~15000mm
Resolution	0.01mm(<100mm) 1mm(>100mm)
Velocity	500~2000m/s 20 fixed sound velocity
Display delay	-20~3400us resolution: 0.1us
Probe delay	0~99us resolution: 0.01us
Auto calibration	Measurement and setting of sound velocity and probe delay using two known calibration echoes (2-point calibration)
Linear error	Horizontal linearity error≤0.1% Vertical linearity error ≤3%
Dynamic range	≥36dB
Sensitivity leavings	≥64dB 200mmΦ2 flat-bottomed hole
Dimension (mm)	240×180×50
Weight	1.9Kg(including battery pack)
Working environment	Temperature: 0℃~60℃ Humidity: 20%~90%
Transmission Pulse	
Drive Pulse	Negative pulse/Square Wave
Pulse Width	50~2000ns
Pulse Amplitude	50-500v
Pulse repetition frequency	Pulse repetition frequency PRF could be adjusted
Damping	50/150/250/400Ω
Receiving System	
Testing mode	Pulse echo/ transmitting and receiving /transmission
Measuring mode	Peak /Verge
Gain	0 to 110dB Customers define steps 0/0.2/0.5/1/2/6/12
Detector Pattern	RF/full-wave/positive /negative half- wave
Frequency bandwidth	0.3~1 / 0.5~4 /2~15MHz broad band filter 1/2.5/5/10/15 MHz narrow band filter
Display	
LCD	Wide temperature high-light TET color LCD 5.7" industrial class
Backlight	5 grades could be chosen
Display refresh frequency	Not less than 60Hz
GUI theme	5 GUI color themes: simple/classical/gray/bright light/ dark light, Customers could choose theme by setting color of characters ,A wave scan , coordinate color ,background
Gate /Measuring /Alarm	
Gate	Two separated gates A/B
Measuring Value	5 value display areas, one of them is mainly area. Chosen measuring content SA/SB/DA/DB/PA/PB/A%A%A%B/dBtA/dBtB/dBrA/dBrB/SBA/DBA/PBA/LA/LB
Alarm	All gates could alarm logically and independently

Memory	
Channel parameters	20 groups
A-scan wave	3,200 group
Thickness value	320,000,linear
Wave Video	10 min
Reference wave	4
Input/Output	
Probe cable	LEMO/BNC
Communication	RS232/USB
Region	
Time	Real time date and time
Language	Chinese ,English
Unit	mm/inch
Power	
Battery	High power lithium battery ,capable of preventing over-charge and over-discharge
Power Indicator	Monitor power based on coulombmeter , showing remaining capacity of battery via percentage and battery life
Working time	Continuous working over 20 hours
Power adapter	Input 100~240V/50~60Hz output 9VDC/4A
High Grade	
Dynamic Echo	Digital Nature, Simulation Performance
Memory key Store	3 kinds of data report, screenshot , wave, thickness value
Grate	Analysis the details of the wide gate area
two-dimensional coding B scanning	Thickness/ Shape scanning Gray/Color board Design
Echo Coding	Two chosen coding matter: coordinate/waveform, it is convenient to calculate span
Freezing Curve	All/peak value/contract/envelope/delay envelope
Feature Indicator	Measuring of the sound distance wave front & amplitude
CSC Curve Calibration	Value correction according to probe angle, thickness of pieces and curvature diameter
Lock	Single menu independently lock to avoid system adjust related data; Data group could lock to avoid wrong delete
Screen saver	Standby/Character/Power Off

Equivalent curve	
DAC curve	Recording 30 calibration points; auto gain; any order calibration; two correction matter calibration/edit ; considering of material attenuation and surface saving factor; 5 estimate curves of adjusted gain, comply to JIS&API standard
DGS Curve	DGS Curve fits to three references , includes flat bottomed ,flat-bottomed hole, through holes; considering of material attenuation and surface saving factor, estimating flaw matter; equivalent size/equivalent gain/percentage;
Standard Package	
Main Body	1
Straight /Angle probe	2
Probe Cable	1
Power adaptor	1
Battery	1 group
Operating manual	1
Carrying case	1
Coupling Paste	1 bottle
Optional accessory	
Interface Gate	Applied when flaw detector in a environment which has medium, e.g water
Printer	TP serial printer , 3 data report: screen shot , wave , thickness value
Communication	USB