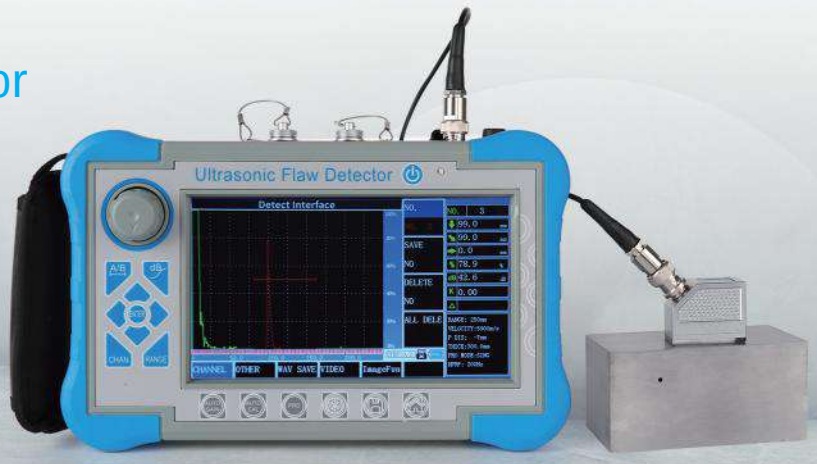
DANA-U920
Digital Ultrasonic Flaw Detector



Standard Con□guration

Main unit	1	Warranty card	1
Straight probe	1	Product Certificate	1
Angle probe	1	Instruction manual	1
probe connecting cable	2	Software	1
Power adaptor	1	Instrument case	1

Introduction

Digital ultrasonic flaw detector is advanced type, which is touch screen, can quickly, easily and without damage, accurately detect, locate, evaluate and diagnose various defects inside the work-piece such as cracks, welds, pores, sand holes, inclusions, folding, etc. It has been applied for electric power, petrochemical, boiler and pressure vessel, steel structure, military, aerospace, railway transportation, automobile, machinery and other fields. It is an essential instrument for the non-destructive testing industry.

Features

- High-precision quantification and positioning to meet the requirements of near and far distance detection
- The near-field blind zone is small, can meet the detecting requirements for small-diameter and thin-walled pipe
- Auto calibration function:one-button auto calibration,easy to operate, automatic test probe “P Delay”,”K value”,”X value” and the velocity
- Automatic display the defect echo position(Depth:d, Horizontal:p,Distance:s, Amplitude,dB,ф)
- Auto gain, peak envelope, peak memory functions, which can improve the detection efficiency
- Automatically record the flaw detection process and dynamic playback
- φ value calculation: Forging flaw detection by straight probe, can find the highest wave to conversion φ value automatically
- 500 independent channels(can be expandable), which can input and store the detection standards of any industries freely, do not need to carry the standard blocks for on-site inspection
- Store, playback 500 A-scan waves and data freely
- The DAC, AVG, and TCG curves (depth compensation) are automatically generated and can be segmented. The sampling points are unrestricted and can be corrected and compensated
- Pulse width and strength can adjustable
- B scan and B color scan function
- Can communicate with the computer, and export WORD. File, also the detection report
- IP65 ABS plastic case, sturdy and durable,water-proof and dust-proof, and excellent anti-interference ability
- High performance lithium battery, can work continuously for 8-10 hours
- Real-time clock recording: real-time flaw detection date, time tracking record, and storage
- Power-down protection, storage data can not lost
- Digital reject, does not affect gain and linearity
- Gain compensation: Db attenuation can be corrected for surface roughness, curved surfaces, long-range flaw detection of thick work-pieces, etc.

Technical Specification

Name	Technical data	Name	Technical data
Display	7 inch TFT color screen，800*480 resolution	Adapter power	36W
Operation mode	Button, Rotary, Touch Screen	Data storage	SD card(16G)
Power supply	Lithium Ion Battery	Alarm	1
Battery capacity	5.0Ah	Working Temperature	-10℃～45℃
Power voltage	12V	Storage Temperature	-20℃～60℃
Power quantity	1	IP Grade	IP65
Working time	≥8 hours	Dimension	245*155*55mm
Adapter input	DC100～240V 50Hz/60Hz	Weight	1.18kg（included battery）
Adapter output	AC 12V		
Probe Connector type	BNC	Probe Type	Single，Dual, Through, Immersion type
Channel Type	Single channel	Filter	1~4MHz/0.5~10MHz/2~20MHz
Channel Num	500 group(able to be scaled)	Detection Mode	Negative/Positive/Full wave/RF
Pulse Type	Negative sharp wave	Reject	0~80%，step 1%
Transmit Voltage	50～350V，step in 50V	Material Velocity	100~20000m/s
Damping	560Ω	Pulse displacement	-10~1000mm
Gain	0~110dB，step：0.5/2/6/12dB	P DELAY	0~200us
Gain Fine Adjustment	-4~+4	X-VAL	0~100mm
Surface compensation	All Gain Range	Guide	Weld, Sheet, Forging inspection
Working Frequency	0.5~20MHz；	Testing Point	Peak/X-val/J val
Testing Range	0~10000mm，Minimum display range:15mm（in steel）		
Measurement	Gate: Amplitude、Amplitude dB value、Range、Horizontal distance、Vertical distance、The difference value between A and B Gate		
	Cursor: 2 cross cursors, can test the horizontal and vertical distance, and the distance between cursors(under B scan function)		
Gate	Gate start:all range		
	Gate width:all range		
	Gate level：10~90%，step:1%		
Curve	DAC, maximum six curves, meet to NB/T 47013,GB/T 11345,GB/T 29712, and other standards		
	TCG, maximum six curves		
	AVG		
Other functions	Full screen, cursor switch(range/Height/Horizon), single/continuous auto gain(10~100%, step 10%), echo compare, echo full, peak envelope,peak memory,fast scan,outside mode,screenshot		
	Peak freeze/Crack depth/Gate expansion/curved surface modification/ B scan/Flat weld simulation/video		
Alarm	Sound and light alarm		
Sensitivity Leavings	≥62dB(200mm—Φ2FH,2.5PΦ20)		
Horizontal linearity error	≤0.3%		
Vertical linearity error	≤3%		
Amplitude linearity error	≤±2%		
Attenuator accuracy	20dB ±1 dB		
Dynamic range	≥32dB		
Distant resolution	≥26dB		
Noise Level	≤40×10-9 V		