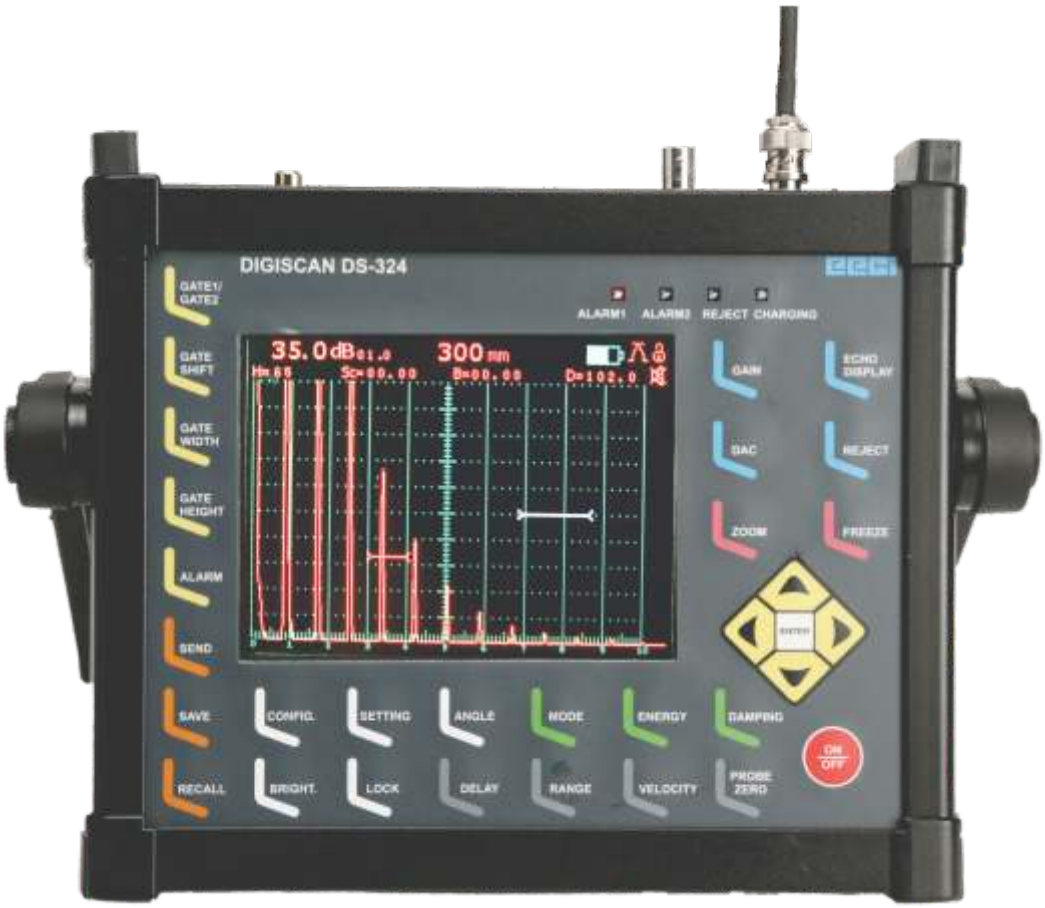
the best in ndt

Digital Ultrasonic Flaw Detector

DIGISCAN DS-324



- Direct access function keys, easy to operate
- Rugged engineering metal body with EMI suppression
- Highest reserve gain in its category of machines
- Large A-scan display area with parameter value
- Sharp display, minutes echoes
- Optimized performance for higher scanning speed
- Smooth DAC curves, user selectable values for two additional curves
- Universal DGS
- Through coating thickness measurement
- Pen drive, ethernet port for data transfer

The New Generation Ultrasonic Flaw Detector DIGISCAN DS-324 combines EECI's years of experience & commitment to customers to provide the best flaw detector in its category by way of most advanced technology, convenience, uniqueness, affordability & technical options for ultrasonic applications in the market.

The TFT colored display makes the A-scan representation stable and clear in all types of lighting condition. Equipped with inbuilt Highest Reserved Gain and Universal DGS, makes DIGISCAN DS-324 a complete solution in ultrasonic testing.

The rugged, lightweight, ergonomical design enables the operator to use DIGISCAN DS-324 in any environmental conditions.

Key Features

- Unique Technology with an inbuilt Flaw sizing Universal DGS
- Highest Reserved Gain Flaw Detector in its category of equipment
- Improved S:N ratio with advance hardware
- User friendly interactive architecture
- Direct data transfer through Pen Drive
- A-Scan recording
- Simplified, easy to access navigation key
- Tough, Light Weight & durable Industrial grade body
- Large, bright, crystal clear CRT grade display
- Standard/ Dynamic DAC for flaw sizing
- Li-ion battery

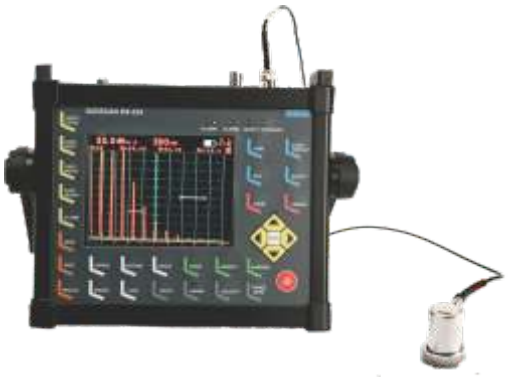
Display

- The DIGISCAN DS-324 provides an LCD (320 x 240 pixels) display resolution
- The display is unique in its category, providing excellent A-Scan representation and readability of minute features of the signal
- The display also incorporates 4 colors Schemes & grids/ graticule pattern to suit all type of individual operator levels/ preference
- Zoom function makes each and every minute echoes visible to the user

STANDARD FEATURES

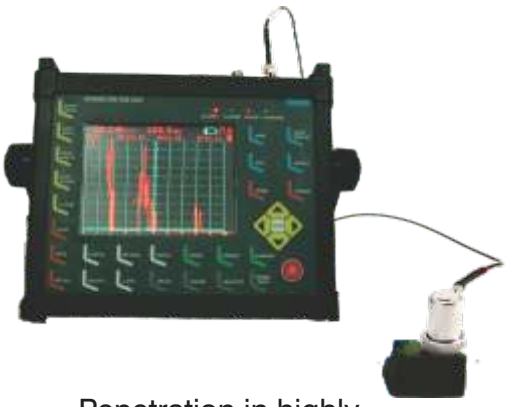
A-Scan Pattern

The inbuilt advance hardware enhances S:N ratio, for user to view each & every minute echoes. It enhances the near & far surface resolution.



Highest Reserve Gain

Coupled with high S:N ratio the instrument has better ability to detect smaller defects while retaining maximum unused gain (reserve)



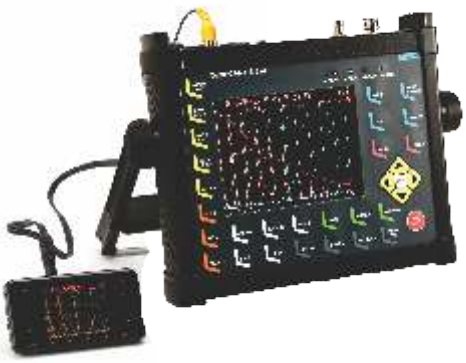
Penetration in highly attenuate material

Universal DGS

Features the Universal DGS pattern against standard DGS curve for a particular type of probe. It can be plotted by choice of reflector type option include BW, SDH, FBH. Flaw size occurring above or below the curve is easily visible in parameters.

Inbuilt DAC

Calculates & displays tolerance curves in dB levels compared to DAC reference curve with minimum 2 points & maximum 10 points. DAC is plotted as per user application. Smooth DAC curve appears on screen with 2 offset levels.



A- Scan Recorder

Data Transfer EECOWIN Software

EECOWIN software enables data transfer from DS-324 to PC with its simple process of A4 frames, A-Scan pattern are directly transfer to PC through EECOWIN software. Data transfer is also done through pen drive. All the data can be transferred directly to Pen drive.

PC Connectivity

SPECIFICATIONS

LCD DISPLAY

Display	TFT colour LCD with CFL backlight, 300 X 200 pixel, 117.2mm(W) X 89mm(H) Pixel density 320 X R.G.B(H) X 240(V)
Display freeze	Current display freezed
Active freeze	Display accumulation
Reference Echo pattern	Reference pattern can be displayed at the background from selected location in memory
Display Pattern	Unfilled or filled (selectable through set up menu as well as echo display key)

PULSER / RECEIVER

Receiver bandwidth	0.5 to 20 MHz by wide band amplifier
Gain	0-80dB, 0.1, 0.5, 1, 2, 6, 12dB Selectable
Rejection	Linear type (0-99%), 1% step, partial rejection (0-25%), 1% step
Operating mode	Single probe, double probe
Test mode	Pulse reflection or pulse transmission
Energy	HI/LOW selectable.
Damping	NOR/HI selectable
Vertical linearity	5% (±2.5%)
Probe connector	BNC type
Echo display	Full wave rectified

TIME BASE

Range	5mm min - 5Mtrs Max (@ 5890M/sec) -Continuous Variable, (0.1mm step for 10-100mm, 1mm step for 100mm-5Mtrs)
Delay	0-3 Mtrs. Continuous Variable -(0.01mm/step for 10-100mm, 0.1mm/step for 100mm-1Mtrs 1mm/step for 1Mtr-3Mtr)
PRF	Auto set for optimum value. Manually selectable for a lower PRF in the range of 10Hz to 100Hz in step of 10Hz
Velocity	2000M/sec-9999M/sec
Time base linearity	1% (±0.5%)
Zoom	Gated portion, min. 10mm
Triggering	Internal
Probe Zero	0-99.99mm

MONITOR GATE

Monitor Gates	2 Gates -Width 1/10 screen to full screen -Height 1/10 screen to 99% -Gate start measured from '0' div -± logic selectable

FLAW SIZING

DAC	10 points auto plotting curve, (min 2 points) Alarm function linked to gate 2 Simultaneous 2 additional curves with selected attenuation i.e. Between + 6dB To -20dB, In 1dB Step. Also curve types are: - Exponential - Parabolic - Point To Point 1 STD + offset 2 curves with (Ref. + xx dB)
Universal DGS Diagram	For Normal, T/R probes, Angle probes.

GENERAL

Trigonometric Functions	Beam path, flaw depth & projection distance displayed for selected echo within gate 1 : Angle selection 0-90° : Job thickness selection 0.1 to 999mm
Measurements	Echo Height - ±1.0% Tolerance Thickness (echo To Echo) - ±0.1mm
Measurement Units	Millimeter (mm)
Memory	- 190 Memory Sets With 'A' Scans Frames, Calibration Parameters, Trigonometric Value, Label (ID Tag) - 190 Calibration Parameter Sets - 190 DAC Sets
Interface	- PC connectivity via USB-B - Pen drive connectivity via USB-A - Recorder output PAL
PC software	EECOWIN PC interface software compatible with Windows 8 64 bit. Can upload A scan saved set to PC and Pen drive
Key Board	through USB Port User friendly with direct access to frequency used functions
Trace Color	Selectable grey and black background Background grey - Trace-Black/Red/Green/Blue - Graticule-Red/Red/Grey/Grey - Gate1 & Gate2 - two colors Background black - Trace-Red/White/Yellow/Green - Gate 1 & gate 2-two colors - Graticule-Green/Pink(light)/Yellow/Pink
Graticule	5 div (H) x 5 div (V), further sub divided into 10 small divisions, Two types of selectable graticule viz. standard and CRT
Dimension	243(L) x 56(W) x 195(H)
Weight	2.4 Kgs
Power Source	- Built in battery pack, Li-ion Rechargeable battery model BAT322L - Operating time 8 hrs with battery - Battery charger cum 110-220v,50hz-60hz mains adapter Model AD5V5 full charger in 8hrs
Battery Indicator	- Battery charger level on LCD display - Auto shutdown, when discharged
Operating Temperature	0 to 55°C.
Parameter Display	Horizontal & Vertical Graticule, Gain, Universal DGS (flaw size), Beampath, Flaw Depth / Thickness, Projection Distance, Velocity, Probe Angle, Thickness, Echo Display, DAC, Probe Zero, Delay, Range, Reject, Damping, Energy, Gate1/Gate2 ON/OFF, Gate Shift, Gate Width, Gate Height, Alarm Mute, Zoom, Freeze, Active Freeze, Lock, Configuration Menu, Memory Save, Memory Recall, Send, Battery Status, Background Color, Brightness, Label
Accessories	Battery, Charger, PC cable
Lock	Keyboard can be locked
Brightness	Adjustable (0-100% In 1% Step)
Alarm	Audio / Visual (audio mute)
Charge Indicators	Green LED for charging

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