

# Digital Ultrasonic Single Rail Tester

## RailScan-100

- ★ Light Weight.
- ★ Provision of probe mounting for Field face checking.
- ★ Bi-Direction positional sensor for track length/position measurement.
- ★ In built Bi-Direction length/position display.
- ★ 10 Memory location to store set-ups.
- ★ Same Battery type for Multiplexer and Ultrasonic Flaw Detector for interchangeability.

RDSO Approved ( Specification No.M&C/NDT/128/2007,Rev.-1)



# TECHNICAL SPECIFICATION

## Ultrasonic Flaw Detector

<b>Test Range</b>	:	10 mm to 5 meter (in steel) adjustable in 1 mm .
<b>Velocity</b>	:	1000 m/s to 9999 m/s adjustable in 1 m/s .
<b>Delay</b>	:	Up to 3 meter adjustable in 0.5mm or 5mm step.
<b>Gain</b>	:	80 dB calibrated gain in adjustable in 0.5,1,2,6,12 or 20 dB step.
<b>Rejection</b>	:	0 to 100% FSH with LED indicator.
<b>Rectification</b>	:	Fullwave rectified with filtering.
<b>Frequency</b>	:	0.5 MHz to 10 MHz (Wideband).
<b>Test Modes</b>	:	Pulse echo and transmit/receive.
<b>Connectors</b>	:	BNC .
<b>Monitor</b>	:	Dual gate adjustable in 1% of Screen width with Positive/Negative logic, Gate Expand modes.
<b>Gate Expand</b>	:	Expands Range to width of the gate.
<b>A-Scan memory</b>	:	200 Trace Patterns can be stored, recalled, print or transferred to PC via RS-232 serial port.
<b>Calibration Set-up</b>	:	Total 20 Calibration set-ups can be Stored and Recalled
<b>Probe</b>	:	Complete set of probes are provided for the Rail examination.
<b>Software</b>	:	RailSoft-100 Interface software for transferring A-Scan from "RailScan-100" to PC is supplied.
<b>Printer Attachment</b>	:	Any PC Printer with serial port can be attached for instant print-out of Trace Pattern(A-Scan with Set-up data).
<b>Display</b>	:	High brightness colour TFT LCD display. Display area 119x89 mm (320x240 pixel). Eleven different colour scheme options.
<b>Peak Freeze</b>	:	Peak freeze it holds echo dynamic pattern which is useful during angle beam probing to locate peak signal.
<b>Full Screen</b>	:	By pressing Zoom key A-Scan can be displayed in Full Screen area.
<b>Reference A-Scan</b>	:	Reference A-Scan pattern of standard test object can saved and recalled in the background for easy comparison during testing.
<b>DAC</b>	:	DAC curve can be Digitally plotted on screen. DAC curve can be set as flaw monitor gate.
<b>Digital Readout And Trig. Function</b>	:	Thickness/Depth can be displayed in digital readout when using a normal probe and Beam path, Surface Distance and Depth are directly displayed when angle probe is in use.
<b>Power</b>	:	Lithium-Ion Battery pack 14.4VDC,4AH, gives 8 hours continuous operation from fully charged battery. Full charging is done within 4 ½ hours.
<b>Charger</b>	:	Input Voltage 100 to 240 VAC. Charge status indicator is provided.
<b>Temperature</b>	:	0 to 55° C.
<b>Size</b>	:	154 x 255 x 68 mm (HxWxD).
<b>Weight</b>	:	2.3 Kgs. with Battery.

## TROLLEY

<b>Probe arrangement</b>	: Central forward/Backward, Gauge face forward Backward, Field face forward/Backward and Split crystal normal probe mounting arrangement.
<b>Equipment Mounting</b>	: Main Ultrasonic flaw detector and Multiplexer mounting arrangement.
<b>Water container</b>	: 10 Liter water container with separate valve to control water flow for each probe pair to optimize water consumption.
<b>Odometer</b>	: Bi-Directional positional encoder to measure track length/position for test report. ( It will take care of reverse movement also).
<b>Dimensions</b>	: 83x20x66 CM (HxWxL).
<b>Weight</b>	: 21.50 KG With Maux & UFD.

## MULTIPLEXER

<b>No of Channel</b>	: 8 separate channel with individual adjustment of delay and gain control.
<b>Display</b>	: LCD Display 16 * 2 Alphanumeric for indication of parameter value.
<b>Gain</b>	: Adjustment from -10dB to 30dB in step of 1db increment for each channel.
<b>Delay</b>	: Adjustment from 0 to 99mm in step of 1mm increment for each channel.
<b>Memory</b>	: 10 calibration set-up can be store/recall.
<b>Operating Mode</b>	: Factory set T+R / T-R internally selected.
<b>Channel Status Indication</b>	: 8 LED's for indication of on/off status of channel.
<b>Keyboard</b>	: Sealed membrane keyboard with direct access key for channel selection.
<b>Battery</b>	: Li-Ion battery pack 14.4VDC, 4Ah, gives 8 hours continuous operation from fully charged battery. Full charging is done within 4.5 hours.
<b>Operating temperature</b>	: 0 to 55 C.
<b>Dimensions</b>	: 154 x 255 x 68(HxWxD).
<b>Weight</b>	: 1.8 KG.

(Modification rights reserved, Color scheme may be change)

**Manufactured and Marketed by:**



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MKT/040/02