T-Gage V Series

Sonatest Ltd are pleased to introduce the new portable thickness gauge range the T-Gage V series; hand held ultrasonic instruments that are specifically designed to measure the remaining wall thickness of primary steel structures.

The T-Gage V series offers the latest technologies that will make your job easier and has been built to perform in the roughest of industry conditions. The suite of gauges come with monochrome displays as standard. To enhance the user experience a colour display (C) can be configured, as can the additional A-Scan functionality (W). Simple upgrade options are available throughout the life of your gauge.

T-Gage VB
The T-Gage VB is a basic variable velocity gauge with probe. The T-Gage VB is the most economical model designed to make reliable, accurate thickness readings; primarily on steel structures with access to only one side. Packaged in custom moulded high density casing, with a rubber keypad, this gauge offers the end user a simple working interface. This model is easily upgrade-able in the field to deliver datalogging functions.

T-Gage V
As a mid-range model the T-Gage V offers the most popular features in a thickness gauge including echo-to-echo (E-E). These include increase/decrease in gain; vibrate & illuminate the keypad on alarm conditions and with the “transducer attendant” the end user is notified when to replace the transducer. Simple field upgrade-able options include A/B-Scan capability and the data logging software, Data XLS.

T-Gage VDL
The T-Gage VDL is the top of the range model offering all the features of the VDL together with the the flex-ible data logger, taking up to 50,000 readings, B-Scan and Echo-to-Echo functions. It also includes the Data Management Software, customised pouch, belt clip and elasticated hand strap to easily use the unit in either hand.

Applications include:
Corrosion & Pitting, Tube & Pipe, Tanks & Boilers, Pressure Vessels, Storage Tanks, Ship Hulls, Containers, Steam lines, Compressors, Shafts, Bridge Pins, Bond Inspection.

Further model options include:
T-Gage V C: E-E, Colour display
T-Gage V W: E-E, A-Scan
T-Gage V CW: E-E, Colour display & A-Scan
T-Gage V DLC: E-E, Datalogger, Colour Display
T-Gage V DLW: E-E, Datalogger, A-Scan
T-Gage V DLCW: E-E, A/B-Scan & Datalogger

Illuminated Keypad & Vibration Alarm

Left or Right view programmable user interface.

T-Gage V Series

Specifications

PHYSICAL
Weight: 230 g (8 ounces)
Size: 76.2 w x 127.0 h x 31.8 d mm (3" x 5" x 1.25" inches)
Operating Temperature: -20° to 50°C (-4° to 122° F)
Material Surface Temp: -20° to 537°C (-4° to 1000° F)
Depending on probe use.

POWER SOURCE
Battery type: 2 x AA alkaline.
Battery Life: operates for 200 hours (40 hours with backlight on).

Display: 128 x 64 Graphics LCD monochrome.
220 x 170 Graphic Colour TFT display.
Information Displays: LoS, min, max, large reading while displaying min at the same time, velocity, zero, calibration, units, freeze, unfreeze, % battery life remaining, gain - low, std, high, echo to echo symbol.

Resolution: 0.01 mm (0.001 ins)
Probe recognition: via pick list from menu
Delay line zero measurement: Auto at power up with listed numeric value. Ideal for correcting delay line wear/curvature and for transducer acoustic drift at elevated temperature.
Bandwidth: 0.5 - 20 MHz (-3dB)
Measurement rate: 4/sec and 20/sec in fast mode.
Gain: Low, Standard and High for varying test conditions.

Units: English/Metric/Microseconds

Alarms: Minimum/Maximum depth, vibralarm, beeps and display flashes as well as keypad illumination.
Illuminating Keypad: F1 = Red, F2 = Yellow abd F3 -= Green for easy, go/no go testing (patent pending).
Ergonomics: User selectable left or right display change via keypad (patent pending)
Backlight: Light emitting diode, On/Off or Auto On based on valid readings or last key press.

MODES
Differential Mode: Displays the difference from the actual thickness measurement and a user entered reference value.
Scan Mode: Displays minimum or maximum thickness value at 20 measurements per second (ideal for high temperature thickness reading and tracking the minimum depth alarm). Press Freeze to capture the last valid minimum thickness readings prior to the loss of signal (LOS), without reading the couplant upon lifting the probe from the test piece.
Freeze Mode: Freezes Display
Hold Mode: Holds display to retain last thickness reading in reverse video display.

Shut Off: Auto. time out (after X minutes user programmable after no-reading, loss or no keypress)
Warranty: Limited 2 year warranty on parts and labour.

Case: Customised, splash proof (IP54), high impact plastic with rubber. Illuminated keypad for go/no-go testing.
Carrying Case: Custom moulded pouch with wrist strap for left or right handed operators (optional).
Shipping Case: Hard plastics with high density moulded cut out for all accessories (optional)

Standard T-Gage VB series kit includes: UT Thickness gauge, DKS-537 twin crystal 5Mhz 0.375"/9.52mm dia. potted probe, operator manual, cable, couplant and carry case.

Standard T-Gage V series kit includes: UT Thickness gauge, Echo-to-Echo mode, DG537EE twin crystal 5Mhz 0.375"/9.52mm dia. potted probe, operator manual, cable, couplant and carry case.

Standard T-Gage VDL series kit includes: UT Thickness gauge, Echo-to-Echo mode, DG537EE twin crystal 5Mhz 0.375"/9.52mm dia. potted probe, operator manual, cable, carry case and pouch, Data XLS, USB cable.

Feature	Specification	T-Gage VB	T-Gage V	T-Gage VDL
Thickness Range	0.20 mm - 508mm (0.008 - 20 inches)	•	•	•
Delay Line Zero Measurement	Auto at power up with listed numeric value. Ideal for correcting delay line wear/curvature & for transducer acoustic drift at elevated temperatures.	•	•	•
Scan Mode	Displays minimum or maximum thickness value at 20 measurements per second.	•	•	•
Hold Mode	Holds display to retain last thickness reading with reverse video display	•	•	•
Freeze Mode	Freezes display	•	•	•
Units	Inches/Millimetres/Microseconds	•	•	•
Gain	Low, Standard or High for varying test conditions.	-	•	•
Differential Mode	Displays the difference from the actual thickness measurement and a user set reference value	-	•	•
Alarms	Minimum and Maximum depth, vibralarm, beeps & display flashes as well as keypad illumination.	-	•	•
Illuminating Keypad	F1=Red, F2 = Yellow and F3=Green for easy go/no-go testing (patent pending)	-	•	•
Automatic probe wear indicator	Automatically informs the operator to replace the transducer (patent pending)	-	-	•
Echo to Echo	Measures the metal thickness only (ignores paint and coatings)	-	•	•
Non-Encoded B-Scan	Displays a cross section of the test piece	-	-	•
Data XLS	Datalogging software - Upgrades available.	-	-	•

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