



T-GAGE 5 SERIES

Ultrasonic thickness gauges

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

LIGHTWEIGHT, HAND HELD

The T-GAGE 5 series offers the latest technologies that will make your job easier and has been built to perform in the roughest of industry conditions. You just have to choose your display, color or monochrome LCD. All needed features can be upgraded and added later with respect to your needs. Starting with a basic model T-GAGE 5B, you can add DataLogger, alarms, gain adjustment, waveform display,... These gauges are small and can be stored in a tool box or you can go in the field with the gauge in your pocket. They are the solution if you have to perform an inspection in a hard to reach area for accurate and reliable thickness readings.

ONE SIDE ACCESS AND WAVEFORM DISPLAY

Ultrasonic thickness gauges allow to take readings from one side using the travel time of ultrasonic waves. Thus, you don't need anymore to take samples or to cut your parts to know if you are facing corrosion which could fail your production plant. Many models of units are existing, including waveform display in accordance with EN 14127.

ILLUMINATED KEYPAD AND VIBRATE FOR LEFT-HAND OR RIGHT-HAND

Depending on alarms conditions, the keypad illuminates in green, yellow or red. You can setup thresholds of alarms in absolute or percentage values. The keypad can be configured for right-hand or left-hand.

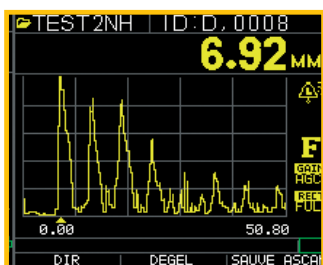
BSCAN

Allows to display thickness profiles for your part, viewing alarms conditions using the color display. Each reading can be reviewed using arrows.



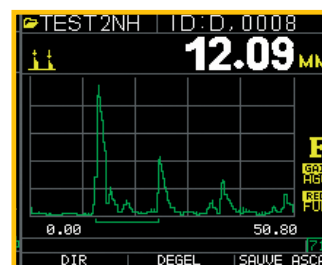
ASCAN DISPLAY

Waveform option allows to display waveform on your gauge, according to EN 14127 recommendations. This feature allows to adjust many parameters such as gain, blanking. Ultrasonic signal can be displayed in RF mode or Full wave rectification. Reading flags are displayed in standard mode or in echo-to-echo mode in order to ensure a correct reading.



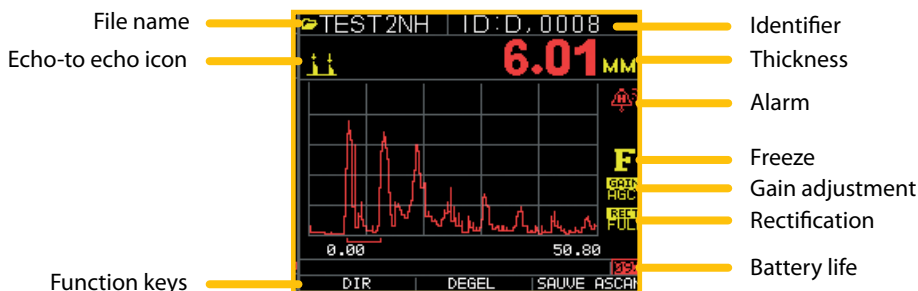
PAINTING REMOVING

The Echo-to-echo mode is needed to take readings under paint or coatings. This feature allows to take the reading from metal part only, even if coated. This feature is available as standard from the T-GAGE 5EE.



PARAMETERS

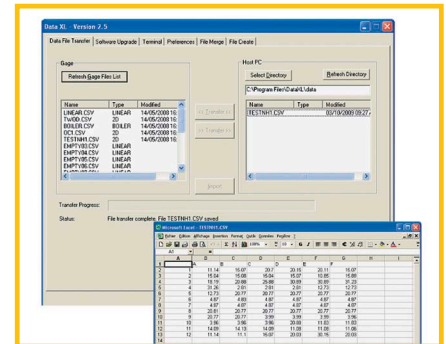
The main parameters which are frequently needed are available from direct access using arrows.



	Monochrome LCD display					Color display			
	TG5B	TG5EE	TG5W	TG5DL	TG5DLW	TG5C	TG5DLC	TG5CW	TG5DLCW
Wear indicator	X	yes	yes	yes	yes	yes	yes	yes	yes
2-points calibration	yes	yes	yes	yes	yes	yes	yes	yes	yes
Differential mode	X	yes	yes	yes	yes	yes	yes	yes	yes
Alarms/ Vibrate	X	yes	yes	yes	yes	yes	yes	yes	yes
Min/Max	yes	yes	yes	yes	yes	yes	yes	yes	yes
Gain adjustment	X	3 levels	continue	3 levels	continue	3 levels	3 levels	3 levels	3 levels
Blanking	X	X	yes	X	yes	X	X	yes	yes
Echo-to-Echo (under coatings)	X	yes	yes	yes	yes	yes	yes	yes	yes
Time BScan	X	X	X	yes	yes	X	yes	X	yes
Encoded BScan	X	X	X	X	X	X	X	X	yes
Data logger	X	X	X	50 000	50 000	X	50 000	X	50 000
Waveform display	X	X	yes	X	yes	X	X	yes	yes

DATA-LOGGER

The T-GAGE 5 series with DataLogger have a 50 000 readings or 5000 Waveforms storage capacity. Three file structures are available (incremental ; 2D grids ; 3D grids) with identifier setup. When using BScan, all thickness readings are stored. Files can be reviewed, thickness readings and waveforms displayed. Files can be uploaded to a PC and readings can be reviewed using DataXL software and exported to Excel spreadsheet.



CALIBRATION BLOCKS

Part Number	Thickness range	Step	Width	Material
CEG-3	1 to 8 mm	1 mm	15 mm	Steel
CEG-3-ALU	1 to 8 mm	1 mm	15 mm	Aluminum 7074
CEG-3-INOX	1 to 8 mm	1 mm	15 mm	Stainless steel 304
CEG-25	5 to 25 mm	5 mm	20 mm	Steel

Other calibration blocks on request, please contact us.

COUPLANTS

Part Number	Properties	Applications	Conditioning	Approval	Max temperature
B	Oil high acoustic impedance, water-soluble	Thickness measuring delicate surfaces, granular corroded surfaces, small radii of curvature.	60 cm ³ bottle	PMUC	50°C
D	Thixotropic gel, water-soluble non-fluorescent	Inspection of large surfaces, vertical walls. Inspection of welds or parts of rough, raw or sanded surfaces.	1 liter, 4 250 ml bottles 2.5 kg pot 10 kg pot	PMUC	100°C
UCA-2	Thixotropic gel, blue, high viscosity	Inspection of large surfaces, walls. Inspection of welds or parts of rough, raw or sanded surfaces.	1 liter, 4 250 ml bottles 2,5 kg pot 10 kg pot	PMUC	100°C
E	Paste for control and high temperature measurements	Grease used for thickness measurements at high temperatures. Do not use at room temperature because low yield.	60 cm ³ bottle		260°C to 540°C
F	Paste for control and medium temperature measurements	Grease used for thickness measurements at medium temperature	60 cm ³ tube 100cm ³ pot		50°C to 280°C
PCS-84	Gelatinous paste for the control of large surfaces, water-soluble	Inspection of large surfaces, walls. Inspection of welds or parts of rough, raw or sanded surfaces.	10 liters pot		50°C

TRANSDUCERS

Part Number	Frequency	Cable	Output	Diameter	Steel range	Echo-to-echo range	Temperature	Observations
DK 537	5	Potted	Rightangle	9,5	1-200	2-50	0°-50°	
DC 537	5	Potted	Rightangle	9,5	1-200	2-50	0°-50°	Piezo-Composite
DK 537EE	5	Potted	Rightangle	9,5	1-200	2-38	0°-50°	Recommended for coatings
DHT 537 ou TG790	5	2210D.2	Straight	9,5	1-200	2-50	-20°-500°	
DHT 537RM	5	2210D.2	Rightangle	9,5	1-200	2-50	-20°-500°	
DC 550	5	Potted	Rightangle	12,7	0,8-200	2-50	0°-50°	Piezo-Composite
DK 718	7,5	Potted	Rightangle	4,8	0,8-50	1,5-25	0°-50°	
DK 718EE	7,5	Potted	Rightangle	4,8	0,8-50	1,5-25	0°-50°	Recommended for coatings
DK 1025	10	Potted	Rightangle	6,3	0,5-45	1,5-25	0°-50°	
DK 10125	10	Potted	Rightangle	3,2	1-19	N/A	0°-50°	
DK 250	2,25	Potted	Rightangle	12,7	2,5-500	5-100	0°-50°	
DC 250	2,25	Potted	Rightangle	12,7	2,5-500	5-100	0°-50°	Piezo-Composite
DC 175	1	Potted	Rightangle	19	4-500	N/A	0°-50°	Piezo-Composite
DC 110	1	Potted	Rightangle	25	5-500	N/A	0°-50°	Piezo-Composite

T-GAGE 5 SPECIFICATIONS

Size

H.127 mm x W.76 mm x D. 32mm.

Weight

230 grams.

Range

0,2 to 508 mm, depending on material, temperature and transducer.

Velocity range

0,508 – 18,699 mm/μs.

Temperature

-20°C up to 50°C.

Surface temperature

Depending on the transducer from -20°C to 500°C.

Battery life

Up to 200 hours (40 hours with backlight).

Supply

2 AA batteries.

Display

Graphic display LCD 128x64.

Displayed parameters

Coupling loss, Min, Max, Current reading in large print, speed, Zero, calibration, units, Freeze, %, remaining battery life, gain, écho-to-écho icon.

Resolution

0,01 mm or 0,1 mm

Transducer recognition

Choosing from a list

Auto-Zero

Automatically done at start, ideal periodic correction depending on the wear and temperature variations.

Bandwidth

0,5-20 MHz (-3 dB).

Units

Metric, inch, μs.

Gain

Low, Standard and High.

Readings

4/sec or 20/sec in fast mode and mini search.

Differential mode

Displays the difference between the current value and the rated value keypad input.

Alarms

Mini/ Maxi absolute or relative %.

Audible and visual alarm using vibrator and illuminated keypad.

Illuminated keypad

F1 red ;
F2 orange yellow ;
F3 green for a quick go/nogo.

Wear indicator

Warns the operator of the necessary replacement of the probe.

Backlight

On/Off or automatically when loss of coupling.

Auto-off

Auto Switch-off (after X minutes adjustable).

Scan Mode

Displays the mini or maxi at 20 readings per second. Hold on to capture the last measurement before removing the transducer and avoiding false readings in the couplant.

Protective pouch and carrying case

Guarantee

2 years