



Ultrasonic Thickness Gauge

TI-121T

ISO9001



JQA-0950

Suitable for thickness measurement of wall under coating
Large data memory

New features for your requests!!

◆ Features

● Thickness measurement of base material under coating

Simply place the probe on a painted surface!
You can measure wall thickness without removing its coating!

● Memory

Easy data management with grouping function.
(Max. 10,000 data capacity)

● Data transfer

Measurement data can be transferred to PC via USB cable.

● Exchangeable probes

Optional probes available for a wide range of measurement.

● Difference display & Upper/Lower limit alarm

Displays difference between measured value and reference value (mm or inch) and ratio (%).
Alarms when exceeded or subceeded the threshold.

● Statistical processing function

Automatically calculates Maximum value, Minimum value, Average value, and Standard deviation of each data group.

● Wide application

Designated measuring modes and gain settings allow you to measure pipes, various materials such as aluminum, resins, etc.

● Sound velocities can be saved.

10 pre-configured settings for standard materials
5 free settings additionally available



Accurate measurement with 1/100 mm display.
Renewed body in black, with our brand color "blue"!

▶ Attachment for pipes (Optional)

*Picture showing a probe with the attachment



TI-P01A

We sold over 45000 units proving high commendation for TI series as standard tools.



JFE Advantech Co., Ltd.

Ultrasonic Thickness Gauge

TI-121T

Typical applications

- ▶ Quality control with finished dimension of rolled, machined, or draw-formed products
- ▶ Measurement of metal products after finishing
- ▶ Thickness testing of various tanks made of steel and resin
- ▶ Check of thinning and corrosion on pipes, tanks, ship hull, and factory facilities
- ▶ Check of wearing and thinning on construction machines
- ▶ Corrosion check on boiler pipes
- ▶ Corrosion check on poles of lighting and road sign



Specifications

Model	TI-121T
Object material	Metals such as Steel, Stainless steel, Aluminum, Titanium, etc. Non-metal such as Glass, Resins, etc.
Measuring method	Ultrasonic pulse reflection method
Operational temperature	From -5 to 50°C
Accuracy guaranteed temperature *1	From 5 to 40°C *1
Thickness measurement range of wall under coating *2	From 3.00 to 20.00 mm
Minimum measurable pipe size	Outer diameter: ϕ 27.2 mm or bigger Wall thickness: 3.00 mm or thicker
Thickness measurement range of wall without coating *2	From 1.50 to 90.00 mm (From 0.80 to 250.00 mm) *3
Minimum measurable pipe size	Outer diameter: ϕ 27.2 mm or bigger Wall thickness: 1.50 mm or thicker
Indication unit	0.01 mm
Accuracy *2	From 0.80 to 9.99 mm *4 ± 0.05 mm From 10.00 to 250.00 mm *4 $\pm 0.5\%$ rdg *5
Probe	Probe with integrated 1 meter cable
Model	T type probe: 7Z10NDT-T
Diameter (contact surface)	ϕ 13.0 mm (ϕ 11.5 mm)
Probe replacement	Replaceable by users *6
Additional replaceable probe	K type / L type probe *7
Display	Digital LCD (128X64) with backlight
Measurement mode Measurement under coating	B ₁ -B ₂
Measurement mode Measurement without coating	S-B ₁ , R-B ₁
Statistical function	Number of data, Maximum value, Minimum value, Average value, Standard deviation
Memory function	Maximum 10000 data (1000 X 10 groups, with grouping function) Contents of data: data number, year/month/date/hour/minute/second of the measurement, measured value, setting of sound velocity (10 default settings, and 5 free settings available)
Alarm function	Upper/Lower limit alarm
Data output	Via USB terminal (USB mini-B)
Sound velocity setting range	1000 to 12000m/s
Power supply	2 X AA alkaline batteries
Dimensions	70 mm (W) X 155 mm (H) X 33 mm (D)
Weight (including batteries)	Main unit: 200 \pm 10 g Probe: 50 \pm 10 g
Standard components and accessories	1 main unit, 1 T type probe, 1 carrying case(TI-P09), 1 bottle of couplant, 2 X AA alkaline batteries, 1 USB cable, data processing software (for Japanese OS only) on 1 CD, 1 built-in calibration block for zero adjustment, 1 instruction manual, 1 test report, and 1 guarantee card

- *1 15 to 50 °C at K type probe
 *2 In case of measurements of steel
 *3 Values in brackets are minimum and maximum values at using optional probes.
 *4 Measuring range includes accuracy error using optional probes.
 *5 "rdg" is the abbreviation of "reading".
 *6 T type/K type/L type probe is replaceable by user.
 *7 TI-121T includes T type probe in a standard package. Exchanging T type probe to other optional probes requires additional cost.
 K type/L type probe cannot be used at thickness measurement of wall under coating.

Note: 1-year warranty for main units / 6-months warranty for probes
 Sound velocity depends on a material. Set to a proper sound velocity in case of measuring other than steel.
 10 sound velocities are stored in TI-121T. 5 additional settings are available.

Display

Alarm display screen

Gain setting
 Measurement mode
 Upper alarm setting value
 Lower alarm setting value
 Measured value
 Data storage table
 Sound velocity setting

Difference indication screen

Reference value
 Measured value
 Difference (mm or inch)
 Difference ratio (%)

Statistical processing screen

Maximum value
 Minimum value
 Average value
 Standard deviation

Replaceable probes

Description	Model	Measuring range	Frequency
T type probe	7Z10NDT-T	Thickness measurement of wall under coating : 3.00 to 20.00mm Thickness measurement of wall without coating : 1.50 to 90.00mm	7.5MHz
K type probe	5Z10NDT-K	0.80 to 80.00mm	5MHz
L type probe	5Z10NDT-L	3.00 to 250.00mm	5MHz

Options

Description	Model
Attachment for pipes	TI-P01A
Couplant	TI-C01

*Please read an enclosed instruction manual before use. *Specifications may be changed without notice.



JFE Advantech Co., Ltd.

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