OKTANTA

Design and manufacture of
non-destructive testing equipment

EM1401 / EM1401 UT
new generation electromagnetic thickness gauge



Application of EM1401 (UT):

EM1401 (UT) is designed for thickness measurement of steel pipes, flat steel, steel rods and other steel, aluminum or other metal constructions.





EM1401 (UT) allows measurements:

- without usage of coupling media;
- without surface pretreatment;
- after a single button touch;
- through the working gap up to 6 mm;
- on both flat surfaces and surfaces with bending radius from 10 mm.

The EM1401 bright color display allows to show the thickness and A-scan of the current tested object. In addition, there is a possibility of saving the thickness and A-scan in the inner memory for further analysis.



EM1401 UT is an EM1401 modification with a possibility of connection of piezoelectric transducers to extend the range of measurable thicknesses:

- PET 5 MHz, dimensions of crystal 10 mm
- PET 5 MHz, dimensions of crystal 7.2 mm
- PET 10 MHz, dimensions of crystal 5 mm

EM1401 / EM1401 UT features:

- Thickness measurement through the gap up to 6 mm;
- A-scan display with a possibility of scaling;
- A choice of the algorithm for the thickness calculation (automatic, 2 gates, 1 gate);
- Saving the measurement information (including A-scan);
- Connecting to various types of transducers including high-temperature ones that provide thickness measurement on hot objects heated up to 750 °C



EM1401 is easily and quickly calibrated using specified thickness or sound velocity, as well as measured metal type. The mode of working with gates allows using the gauge as a flaw detector with direct entry. A high working speed of the device (16 measurments per second) allows you to measure the thickness of long objects easily and quickly.

A high-temperature EMA transducer

The special EMT14014T transducer allows using the EM1401 thickness gauge for thickness measurement on objects heated up to 750 °C. The device implements a special algorithm that accounts for changes in the rate of sound propagation in metal induced by temperature.



EM1401 (UT) specifications

Range of operating ambient temperature	-20...+50 °C
Duration of continuous work without battery recharge	7 hours
Range of sound velocity setting	1000...9999 m/s with 1 m/s step
Highest number of measurements per second	16
Dimensions	232 x 135 x 44 mm

For EMAT

Range of measured thickness for steel	2 mm-200 mm
Thickness measurement error 2...25 mm	0.08 mm + 0.001·H
Thickness measurement error 25...200 mm	0.1 mm + 0.005·H
Permissible clearance between transducer and tested object (with EMT14012)	up to 4 mm
Permissible clearance between transducer and tested object (with EMT14013)	up to 6 mm
Permissible transducer skew	±25°
Lowest permissible radius of curvature of the tested object surface	⩾10 mm
Range of sound velocity setting	1000...9999 m/s with 1 m/s step
Operating frequency of the device	4 MHz
Range of operating temperature on the tested object surface	-20...+80 °C (-20 ...+750 °C with EMT14014T)

For PET

Range of measured thickness for steel	0.5...200 mm
Thickness measurement error 0.5...25 mm	0.08 mm
Thickness measurement error 25...200 mm	0.1 mm + 0.005·H
Lowest permissible radius of curvature of the tested object surface	25 mm
Operating frequency of the device	5 MHz, 10 MHz
Range of operating temperature on the tested object surface	-10...+60 °C

Contacts:

34 Olga Berggholz Street,
Saint Petersburg, Russia
oktanta-ndt.ru

+7(812) 385-54-28
info@oktanta-ndt.ru

Our dealers:

China
Beijing Accurate Testing Technology Co. Ltd.
www.bj-jzj.cn
Phone: +86-15-010482279
Email: accurate.zhao@jzjndt.com

South Korea
Dae Hyeon Tech
www.daehyeontech.co.kr
Phone: +82-10-4761-2911
Email: halim1475@naver.com

India
Russell Technologies India Pvt. Ltd.
www.russelltech-india.in
Phone: +91 7905987208
Email: info@russelltech-india.com

Israel
GABI SHOEF LTD.
www.gabishoef.co.il
Phone: +97248201735
Email: sasha@gabishoef.co.il