




**ACOUSTIC  
CONTROL  
SYSTEMS**

Instruments for nondestructive  
inspection of metals, plastics  
and concrete objects

# ULTRASONIC THICKNESS GAUGES



**TRADITIONAL  
QUALITY  
AND MEASUREMENT  
ACCURACY  
IN A NEW DESIGN**



# ULTRASONIC THICKNESS GAUGES

## NEW-GENERATION, POCKET-TYPE

# A1207

## ULTRASONIC THICKNESS GAUGES

### A1207, A1208, A1209, A1210

All-digital, portable, pocketable ultrasonic thickness gauges combine usability, excellent performance and measurement accuracy. The thickness gauges are enclosed into safe cases made of shockproof plastic, their accumulator batteries can be charged from mains or PC via the USB-cable. These instruments are easily operated and possess user-friendly interface as well.

#### APPLICATION RANGE

- Chemical process industry, food processing industry, oil and gas industry
- Ship construction industry and ship repair
- Electricity-producing industry
- Pipe plants, iron and steel plants
- Transport sector and machine-building industry
- Aerospace sector
- Glass industry
- Municipal infrastructure sector

#### ADDRESSED ISSUES

- Thickness measurements of the pipe walls, boilers, vessels, ship hulls and other objects made of ferrous and non-ferrous metals with smooth or corroded surfaces
- Express searching for foreign inclusions and delaminations of structure
- Inspection of the objects made of plastics and other materials possessing high ultrasonic attenuation properties
- Thickness measurements of the objects made of aluminum alloys
- Casting inspection and testing of the sheet products
- Ultrasonic thickness measurements of metal objects through the polymeric, paint and other types of insulating coating without cleaning-up

#### APPLICATION

Thickness measurements of the walls, boilers, pressurized vessels, ship hulls and other objects made of ferrous and non-ferrous metals, glass objects, as well as metal and plastic pipes ranging in diameter from 20 mm.



#### FEATURES

- Thickness measurement range (for steel) is from 0,8 to 100,0 mm
- An ideal option for quick inspection
- Small size and weight (can be put in pocket)
- Easy setup and operation
- Replaceable single-crystal transducer with 4 MHz frequency and wear-resistant ceramic protective cover
- Hot-swapping of the built-in transducer without extra tools
- Built-in Bluetooth module provides communication and real-time display (online-thickness gauge) of digital measurement results and A-Scans of the signals to the screen of a smartphone or a tablet PC
- Dedicated software application allows viewing the digital measurement results and A-Scans of the signals for the iOS and Android devices
- Required velocity can be set
- Period of continuous operation — 16 h
- Performance capability at temperatures from -30 to +50 °C

#### DELIVERY KIT

- A1207 — an electronic unit of the thickness gauge with a replaceable single-crystal transducer
- USB A — Micro B cable
- AC-power adapter 220 V — USB
- Calibration sample UCB 117
- Couplant for ultrasonic inspection «ACS-gel», 0,02 kg
- Case

# ULTRASONIC THICKNESS GAUGE

## A1208



### FROST-PROOF APPLICATION

Thickness measurements of metals, pipe walls, plastic objects, as well as objects made of cast iron and other materials possessing high ultrasonic attenuation properties under difficult weather conditions (from  $-30$  to  $+50$  °C).

Instrument can be operated with double-crystal and single-crystal transducers.

**S3567 2.5A0D10CL** (is included into the delivery kit) and **S3569 5.0A0D10CL** single-crystal transducers with wear-resistant ceramic protective cover allows:

- thickness measurements of thick-walled objects made of metal, cast iron, plastic and other materials possessing high ultrasonic attenuation properties.
- thickness measurements of metal objects through the paint coatings. The instrument's screen will display a thickness value of the testing object without thickness of the coating, if thickness of the coating not more than 1 mm and thickness of testing object up to 15 mm.
- scanning of the testing object.

### FEATURES

- Thickness measurement range (for steel) is from 0.7 to 300.0 mm
- Built-in lithium frost-proof battery
- Continuous operation time — 9 h
- Large, information-bearing, color TFT display
- Measurement discreteness is 0.01 or 0.1 mm
- Automatic detection of velocity on the object of known thickness
- Nonvolatile memory can store up to 50 000 measurement results
- Color, sound and vibro-indication
- Data transmission to PC via the USB cable

### DELIVERY KIT\*

- A1208 — electronic unit of the thickness gauge
- LEMO-LEMO single cable 1.2 m
- Transducer S3567 2.5A0D10CL
- AC-power adapter 220 V — USB
- USB A — Micro B cable
- Couplant for ultrasonic inspection «ACS-gel», 0,1 kg
- Soft cover
- Case

#### \*Additionally transducers:

D2763 10.0A0D6CL, D1771 4.0A0D12CL  
S3569 5.0A0D10CL, 5T 12/12 (high-temperature)

## A1209



### GENERAL-PURPOSE APPLICATION

Thickness measurements of the walls, boilers, vessels, ship hulls and other objects made of ferrous and non-ferrous metals, as well as metal and plastic pipes ranging in diameter from 20 mm.

Instrument can be operated with double-crystal and single-crystal transducers.

The double-crystal transducer **D1771 4.0A0D12CL** is included into the delivery kit. This transducer possesses increased wear resistance properties and provides reliable measurement on the many of the objects, thus allowing measurements on the corroded surfaces as well as on smooth flat objects; at that no additional adjustments are required.

The thickness gauge can be additionally equipped with the **5T 12/2** high temperature double-crystal transducer required for inspection of heated objects up to  $+250$  °C.

### FEATURES

- Thickness measurement range (for steel) is from 0.7 to 300.0 mm
- Built-in lithium rechargeable battery
- Continuous operation time — 9 h
- Large, information-bearing, color TFT display
- Measurement discreteness is 0.01 or 0.1 mm
- Automatic detection of velocity on the object of known thickness
- Nonvolatile memory can store up to 50 000 measurement results
- Color, sound and vibro-indication
- Data transmission to PC via the USB cable

### DELIVERY KIT\*

- A1209 — electronic unit of the thickness gauge
- LEMO-LEMO double cable 1.2 m
- Transducer D1771 4.0A0D12CL
- AC-power adapter 220 V — USB
- USB A — Micro B cable
- Couplant for ultrasonic inspection «ACS-gel», 0,1 kg
- Soft cover
- Case

#### \*Additionally transducers:

D2763 10.0A0D6CL, S3567 2.5A0D10CL  
S3569 5.0A0D10CL, 5T 12/12 (high-temperature)

# ULTRASONIC THICKNESS GAUGE

WITH A-SCAN

# A1210



## APPLICATION

Thickness measurements of the steel pipe walls and objects made of metal, cast iron, plastic, and other materials possessing high ultrasonic attenuation properties.

The thickness gauge can be operated in the imaging mode when the measurement results are displayed as digital values, or in the mode of graphical representation of the A-Scan signal.

Instrument can be operated with double-crystal and single-crystal transducers.

**S3567 2.5A0D10CL** (is included into the delivery kit) and **S3569 5.0A0D10CL** single-crystal transducers (are operational from  $-20$  to  $+50^{\circ}\text{C}$ ) with wear-resistant ceramic protective cover allows:

- thickness measurements of thick-walled objects made of metal, cast iron, plastic and other materials possessing high ultrasonic attenuation properties.
- quick searching for foreign inclusions and delamination of structure.
- obtaining accurate results while measuring through paint coatings.
- scanning of the testing object.



### D1771 4.0A0D12CL

(is included into the delivery kit) double-crystal transducer allows:

- thickness measurements on the corroded surfaces, as well as on smooth flat objects, at that no additional adjustments are required, thus the inspection process is essentially simplified and activated.
- obtaining accurate results in the A-Scan mode while doing measuring through polymer coating and other types of insulation coatings.



## FEATURES

- Thickness measurement range (for steel) is from 0.7 to 300.0 mm
- Imaging of the A-Scans signal
- Built-in lithium rechargeable battery
- Continuous operation time — 9 h
- Large, information-bearing, color TFT display with possibility to change the orientation of the image by 90 degrees
- Measurement discreteness is 0.01 or 0.1 mm
- Automatic detection of velocity on the object of known thickness
- Nonvolatile memory can store up to 50 000 measurement results
- Color, sound and vibro-indication
- A magnetic holder built into the instrument's cover provides easy operation in difficult-to-reach places and on heights
- Data transmission to PC via the USB cable

## DELIVERY KIT\*

- A1210 — an electronic unit of the ultrasonic thickness gauge
- LEMO-LEMO single cable 1.2 m
- LEMO-LEMO double cable 1.2 m
- Transducer S3567 2.5A0D10CL
- Transducer D1771 4.0A0D12CL
- AC-power adapter 220 V— USB
- USB A— Micro B cable
- Couplant for ultrasonic inspection «ACS-gel», 0,1 kg
- Soft cover
- Case

### \*Additionally transducers:

D2763 10.0A0D6CL, S3569 5.0A0D10CL, 5T 12/12 (high-temperature)