



UCI Hardness Tester

TKM-459CE

DESCRIPTION

High precision hardness tester TKM-459CE intended for quick measuring of metal items hardness in laboratorial, manufacturing and field conditions. (manufactured mash project, Russia)

Device is intended for non-destructive testing of production quality in metallurgy, mechanical engineering, aircraft, shipbuilding, atomic industry, oil and gas industry.

Hardness tester functions by UCI method (Ultrasonic Contact Impedance).

TKM-459CE controls hardness of following:

- Carbonaceous and structural steels
- Items with surface-hardened layers such as cementation, nitride hardening, high frequency current hardening
- Heat-proof, corrosion-proof, non-corrosive steels
- Plated coating (chrome), overlaying
- Items of complicated configuration

Exploitation advantages :

- Stable readings independent from force and time of pressing
- Easy measuring in hard-to-reach areas
- Ultra-small control area (from 1 mm)
- Control in slots and blind holes from 5 mm (not provided by rival devices)
- Invisible print on mirror-surface
- Low sensitivity to the curvative of surface, thickness and weight of product

Features of TKM-459CE

- Impact-, dust- and water- proof housing.
- Intuitive graphic interface.
- Bright color graphic display allows working at below zero temperature and stays bright at any lighting.
- Signalization of exceeding of prescribed readings threshold.
- Unique system of statistic data processing and averaging of readings.
- Fast adjustment of readings and programming of additional calibrations to basic scales by 2 or less standard blocks.
- Flexible device memory for recording of readings and their analysis.
- Programming of additional scales calibrations by 2 or less standard test blocks.
- Fast programming of additional scales by 2 to 10 standard test blocks.

APPLICATIONS



OTHER ACCESSORIES

Probe Type «AL»



«A»



Probe Type

«H»






«C»



Special head «U-459»

Probe Type «K»



Photo	Probe Type	Load	Length (mm)	Diameter (mm)	Application
	<<A>>	50H(5kg)	145	26	Solving the bulk of control problems
	<<H>>	10H(1kg)	145	26	Galvanic coating hardness control (chrome etc.)
	<<C>>	100H(10 kg)	145	26	Unprepared surface control
	<<K>>	50H(5kg)	76	36	Hardness control in tubes and hard-to-reach areas
	<<AL>>	50H(5kg)	176	26	Hardness control in hard-to-reach areas (length of tip 53 mm)

HARDNESS TESTERS MODE

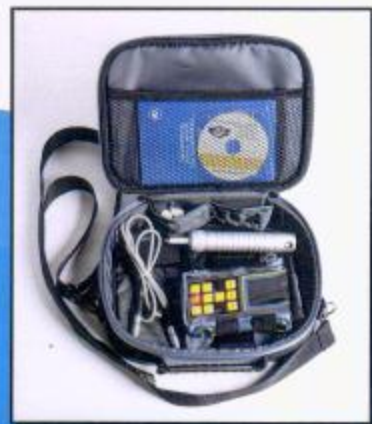
Measurement mode	Readings	Using
By basic scales	Basic hardness units (HRC, HB, HV)	Hardness testing of the bulk of products
By additional callibrations to basic scales	By HRA, HRB, HSD scales and ultimate tensile strenght	Hardness testing of high alloy steels, special cast iron and nonferrous metals
By additional scales	Scales are programmed by the user	Special problem sloving

TECHNICAL PARAMETERS

CHARACTERISTICS	VALUES
Relative average error at regular calibration test with second rate test blocks	3%
Calibration error with the first rate test block :	
Rockwell	1.5 HRC
Brinell	10 HB
Vickers	12 HV
Spot diameter on the item surface for probe positioning	From 3mm on flat surface From 5mm in a slot
Quantity of possible additional calibration of scales	50
Quantity of additional scales	3
Duration of one measurement	2 seconds
Quantity of measurements for average reading calculation	1-99
Memory capacity, readings	12400
Maximum quantity of name units of readings generated in memory	100
Quantity of algorithms for known to be false readings during average value calculation	3
Signalization about threshold exceeding	provided
PC Connection	USB
Power supply	Li-Ion accumulator
Dimensions of hardness tester electronic unit	121 x 69 x 41 mm
Weight of electronic unit	0.3 kg
Weight of A-probe	0.15 kg
Operating temperature range	-15... +35°C
Guarantee period	1 year

BASIC DELIVERY SET

Elements	Quantity
Electric unit	1
Accumulator(pre-installed)	1
A-Type probe	1
Connecting cable	1
Charger	1
PC cable	1
Soft case	1
Cuff to fix device on arm	1
Bag for carrying and storage	1



Sold/Serviceed by :

KRUTAM TECHNO SOLUTIONS PVT. LTD.
 Plot No. 64/B, B/h. Firebrigade Station,
 GIDC Makarpura Industrial Estate,
 Makarpura, Vadodara - 390010,
 Gujarat, INDIA.

www.krutam.com
krutam@krutam.com

0265-2640767, 0265-2651828
 8905004230, 8238244222