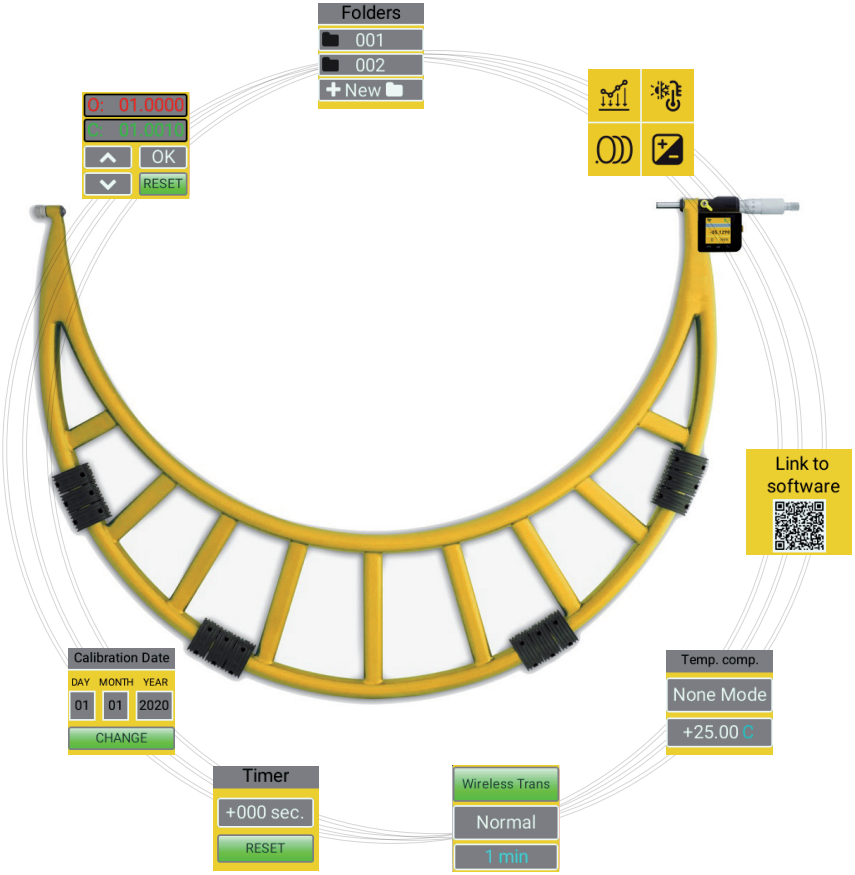
MICROTECH



WIDE RANGE COMPUTERIZED MICROMETER

USER MANUAL

ilac-MRA Calibration ISO 17025:2017

ISO 9001 BUREAU VERITAS Certification ISO 9001:2015

SPECIFICATION

Item No	Range		Resolution		Accuracy	Micrometer head range	Protection class	Indication	Data output	Calibration
	mm	inch	mm	inch	µm	mm			Wireless	ISO 17025
110184008	300-400	12-15"	0,0001	0.00001"	±5	25	IP-65	computerized MICS system with 1,54" touchscreen	max 50m	+
110185008	400-500	15-20"			±5	25	IP-65		max 50m	+
110186008	500-600	20-24"			±6	25	IP-65		max 50m	+
110187008	600-700	24-28"			±7	25	IP-65		max 50m	+
110188008	700-800	28-32"			±8	25	IP-65		max 50m	+
110189008	800-900	32-36"			±10	25	IP-65		max 50m	+
110181108	900-1000	36-40"			±10	25	IP-65		max 50m	+
110181208	1000-1200	40-48"			±14	50	IP-65		max 50m	+
110181408	1200-1400	48-56"			±16	50	IP-65		max 50m	+
110181608	1400-1600	56-64"			±20	50	IP-65		max 50m	+
110181808	1600-1800	64-72"			±24	50	IP-65		max 50m	+
110182108	1800-2000	72-80"			±30	50	IP-65		max 50m	+

Clean the oil from the measuring surfaces of micrometer by cloth.
Turn on micrometer by pressing SWITCH ON button.
Check the setting display to zero. Contact with each other (or with setting gauge) measuring surfaces of the anvil and the spindle, using the ratchet and take a measurement.
Rotation the micrometer screw in the direction of convergence measuring surfaces using the ratchet.
For zero setting, press the ZERO button on Touchscreen.

MAIN INFO

PRECISION MEASUREMENTS

MICROTECH computerized micrometer with 0.1 resolution can be used for high precisor measurements in manufacturing, automotive medical industry and for calibration

COLOR GO/NOGO INDICATION

Easy and quick limits control.
It's possible setup max and min value throw menu.
Color indication reduce possibility of error during control

INTERNAL MEMORY

Computerized micrometer has memory manger with possibility saving data to folders. Separate Data's or Folders can be transfer Wireless to MICROTECH Software (Windows, Android,iOS)

FORMULA MODE

In Formula mode we use Ax^2+Bx+C
Main using of this function is:
- Preset function
- Magnification of measured value

For customers request Formula can be updated

ERROR COMPENSATION

It's possible to make mathematical error compensation. Just re-calibrate micrometer with gauge block set and save results. Micrometer will indicate measuring results include re-calibration.

TEMPERATURE COMPENSATION

Temperature compensation function gives possibility recalculate details sizes with high or low temperatures to normal (20C conditions). Available recalculation for 7 materials

TECHNICAL DATA

Parameters	
LED display	color 1,54 inch
Resolution	240x240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	450-800 mAh (depends of device)
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch (Multifuntional), Reset
Wireless data transfer	up to 50m on open area

CHARGING

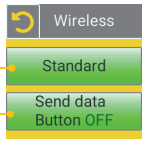
For charging connect USB cable
Charging process indicating
on Battery status
(switch on device)

BUILT-IN BATTERY - rechargeable Li-Pol battery

MICROTECH

WIRELESS DATA TRANSFER

Activate WIRELESS data transfer in WIRELESS menu



Switch on Wireless data transmition

Activating multifunctional button to save value to memory or send data by touchscreeb ur button push

Connect instrument with MICS indication system to Tablet or PC

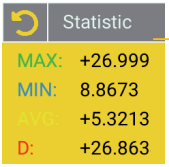
Send data tp Tablet or PC:

- by Touchscreen
- by Multifactinal button psuh (activted in Wireless menu)
- by Timer (activated in Timer menu)
- from Internal Memory

MEMORY

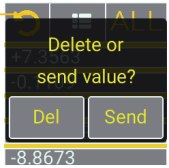
For save measuring data to internal caliper's memory touch data area on screen or short button push. You can view saved data throw menu or send Wireless connection to Windows PC, Android or iOS devices.

Basic STATISTIC functions:
MAX - maximum saved value
MIN - minimum saved value
AVG - average value
D - variance VAR(x)



Saved values

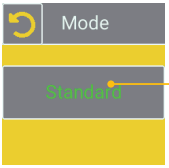
Each value can be Deleted or Send to application



Button ALL select all values
All values can be Deleted or Send to application

MEMORY settings

Memory sub-menu



Selecting Standard mode or No saving data to internal memory

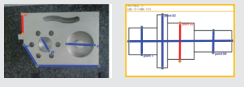
CONNECTION

MICROTECH

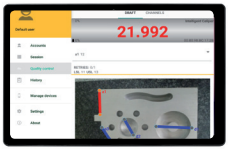
UP TO 50M

WIRELESS CONNECTION

IMPORT FROM FILE OR CAMERA



USB-DONGLE



Windows

iOS

ANDROID

DOWNLOAD

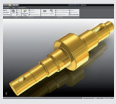
DOWNLOAD

DOWNLOAD

SAVING DATA TO XLS. CSV FORMATS

SAVING DATA TO XLS. CSV FORMATS

SAVING DATA TO XLS. CSV FORMATS



TRANSFER DATA TO CAD, SPC OR OTHER SOFTWARE

SAVING GRAPH

SAVING GRAPH

TRANSFER DATA TO EXCEL OR OTHER TABLE EDITORS

VOICE MODE

VOICE MODE

QUALITY CONTROL RESULTS

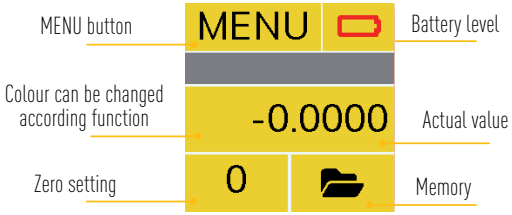
DATA TRANSFER DISTANCE FOR INTELLIGENT INSTRUMENTS

- All MICROTECH Intelligent instruments has internal memory. You can collect data to memory and when it will be neccesary transfer all data to the peripheral device with no data loosing.
- It's possible transfer data, like in Wireless instruments up to 15 m or up 50 m with external antenna
- USB port can be used to transfer data directly to Windows PC

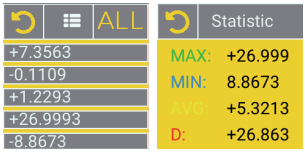
MICROTECH

MENU NAVIGATION

USE TOUCHSCREEN TO OPERATE MENU



MEMORY WITH STATISTIC



MENU CONFIGURATION

MAIN MENU

LIMITS
color Go/NoGo

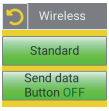
MAX/MIN
indicating max or min value

FORMULA MODE
Ax^2+Bx+C

ERROR COMPENSATION
mathematical correction

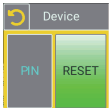
TEMPERATURE COMPENSATION
manual correction

RESOLUTION
selected up to 0.0001mm

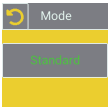


WIRELESS
modes of data transmition

USB
USB connection configuration



DEVICE SETTING
pin, reset



MEMORY SETTING

SOFTWARE
link to download app

CALIBRATION DATE

MICS SYSTEM FUNCTIONS

MICROTECH

LIMITS GO/NOGO

MENU SETTING

MAX value

MIN value

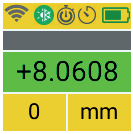
zero values

Colour indication limits

MAX - NoGo more MAX value
MIN - NoGo less MIN value
RANGE - Go between MIN & MAX
NONE - disactivating mode

MAIN SCREEN INDICATION

NoGo



Go

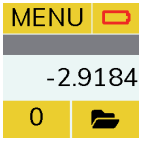
MAX/MIN

MENU SETTING

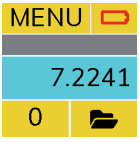
Indication and saving MAX or MIN values

ENABLE - activating mode
MAX - indicating MAX measured value
MIN - indicating MIN measured value

MAIN SCREEN INDICATION



MIN

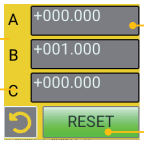


MAX

FORMULA

MENU SETTING

Formula: $4x^2+Bx+C$



Long push digit to select value

Reset to zero arguments

FORMULA Ax^2+Bx+C

EXAMPLE OF FORMULA USING

Standard measuring	A=0,	B=1,	C=0
PRESET 50mm	A=0,	B=1,	C=50
Value magnification x3	A=0,	B=3,	C=0
Square value	A=1,	B=0,	C=0

TIMER

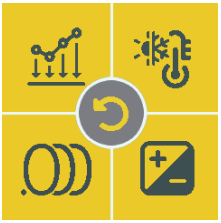
MENU SETTING

Select timer period
Reset to disactivate mode

Saving data to memory or sending Wireless by Timer

MICROTECH

MICS SYSTEM FUNCTIONS



MATHEMATICAL ERROR COMPENSATION

MENU SETTING

Mathematical correction points with big error to normal values

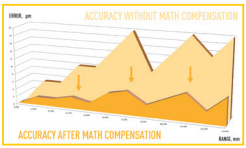
Select all points

Add new point for error compensation

actual values

correct values by up&down button

confirm point correction



use gauge blocks or measuring machine for points correction

TEMPERATURE COMPENSATION

MENU SETTING

Re-calculation detail size to calibration conditions (20°C)

7 types of material for selection

Manual Temperature setting

7 types of material:
- glass, quartz, solid alloys
- granite, graphite
- Fe, NI, Fe alloys
- stainless steel
- cooper, Cu alloys
- alluminium, al alloys
- acrylic sheet

RESOLUTION

MENU SETTING

Resolution selecting

mm/inch conversion

MAIN SCREEN INDICATION

+8.0608

Selecting resolution of value on main screen and memory

EXTRA (Axis mode)

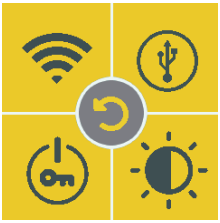
MENU SETTING

Selecting normal or inverted axis mode (+/- value indication)

Reading base reconnection for some types of calipers

MICS SYSTEM FUNCTIONS

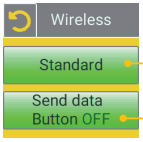
MICROTECH



WIRELESS CONNECTION

MENU SETTING

Activating or disactivating wireless data transfer



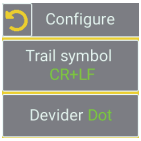
Switch on Wireless data transmition

Activating multifunctional button to save value to memory or send data by touchscreeb ur button push

USB CONNECTION

MENU SETTING

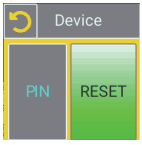
USB connection mode under construction



PIN & RESET

MENU SETTING

Activating PIN to device setting

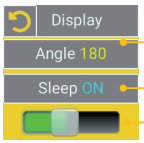


RESET to factory settings

DISPLAY SETTING

MENU SETTING

DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



Display rotation 0°, 90°, 180°, 270°

- Sleep OFF (15 s low brightness off, sleep off)
- Sleep 15s (15 s low brightness on, sleep off)
- Sleep ON (15 s low brightness on, sleep on)

Brightness level

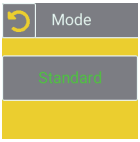
MICROTECH

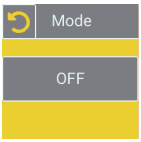
MICS SYSTEM FUNCTIONS

MEMORY SETTINGS

MENU SETTING

Activating or disactivating saving values to memory





Standard - saving values to memory

OFF - disable saving to memory

LINK TO SOFTWARE

MENU SETTING

QR Link to MICROTECH web site page
with MDS Software download
- Android, iOS, Windows versions
- Free and Pro versions
- Manuals

Windows

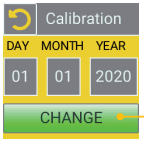
iOS

ANDROID

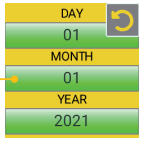
CALIBRATION DATE

MENU SETTING

Calibration date info



Push for change date info

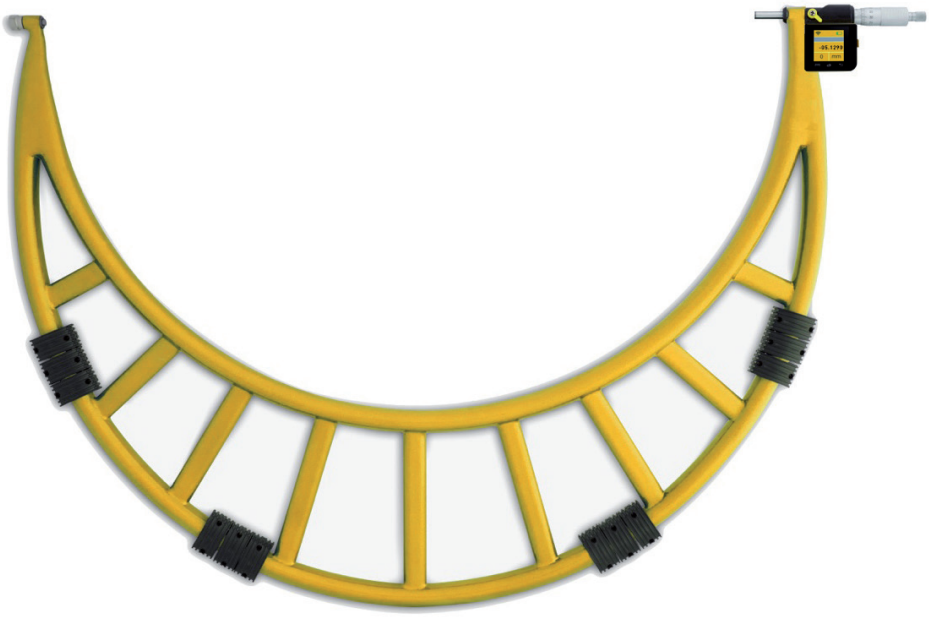


DEVICE INFO

MENU SETTING

Information about device
- device name
- firmware version
- MAC adress for easy connection

DIMESIONAL DRAWINGS



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tool@microtech.ua

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