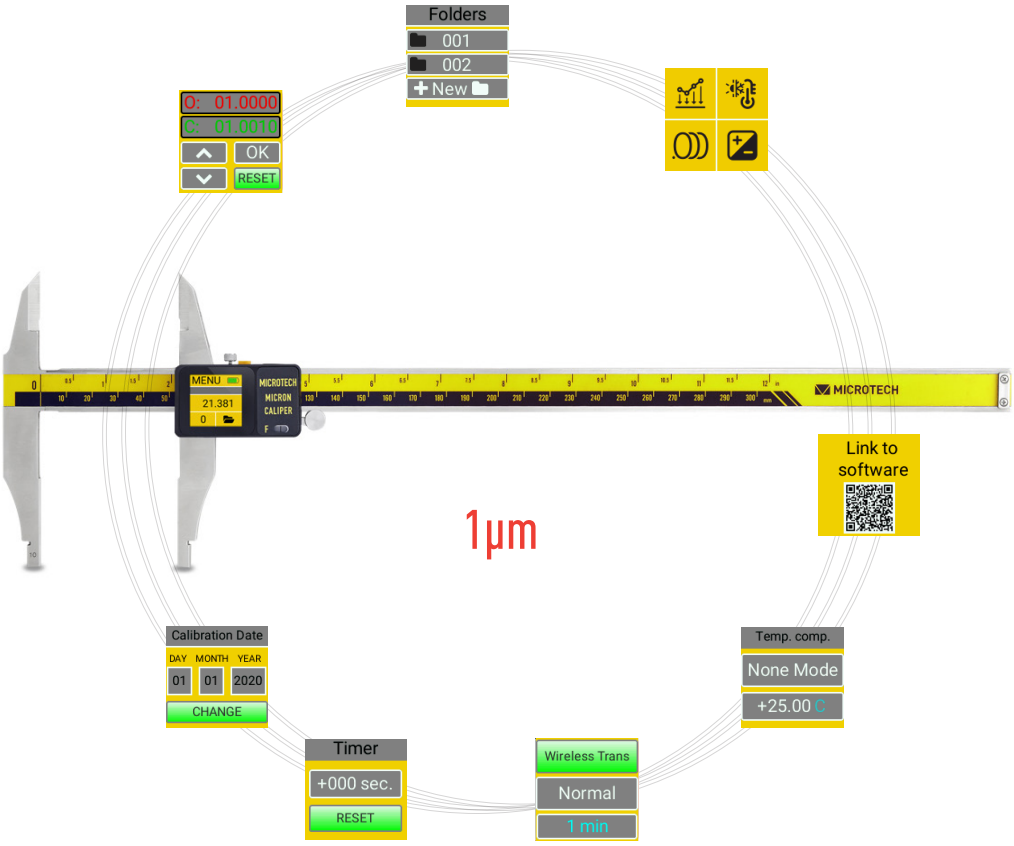
MICROTECH



MICRON COMPUTERIZED FORCE CALIPER

USER MANUAL

Calibration ISO 17025:2017

ISO 9001:2015

SPECIFICATION

Item No	Range		Resolution		Accuracy	External Force	Protection
	mm	inch	mm	inch	µm	N	
141097321	0-300	0-12"	0,001	0.0002	±15	8	IP54

TECHNICAL DATA

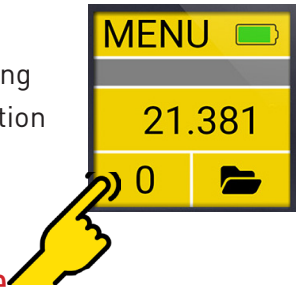
Parameters	
LED display	color 1,54 inch
Resolution	240x240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	450-800 mAh (depends of device)
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch (Multifuntional), Reset
Wireless data transfer	up to 50m on open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

Clean the oil from the measuring surfaces of caliper by cloth.
For recharging caliper (Li-Pol rechargeable battery) connect it with standard USB cable to charger device.

DO NOT LEAVE UNCHARGED CALIPER FOR A LONG TIME.
THIS MAY RESULT TO INTERNAL BATTERY FAILURE!

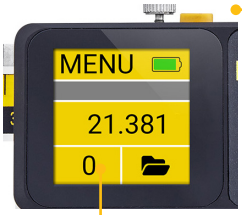
BASE RECONNECTION

Sometimes, when battery was uncharges for a long time - necessery to make reading base reconnection



PUSH ZERO button (5sec.) on main screen
or quick move computerized block on all range

MAIN INFO



SWITCH ON DEVICE - button push (1 sec)
SWITCH OFF DEVICE - button push (3 sec)/ auto switch off
DATA TRANSFER - programming throw menu

ZERO SETTING - push 2 sec to ZERO setting

CHARGING

BUILT-IN BATTERY - rechargeable Li-Pol battery

For charging connect USB cable

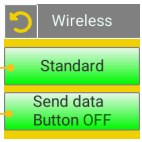
FORCE CONTROL

FORCE control module 8N

For zero setting use Force control module- line inside lens must be came off with outside line.
Press the **ZERO** button on Touchscreen for ZERO possition setting.
During a mesuring use Force control module to measure with optimal Force

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

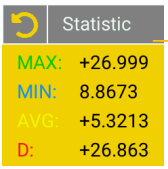
Send data tp Tablet or PC:

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

MEMORY

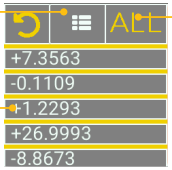
For save measuring data to internal caliper's memory touch data area on screen or short button push. You can view saved data throw menu or send Wireless connection to Windows PC, Android or iOS devices.

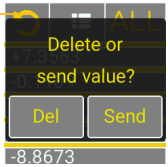
Basic STATISTIC functions:
MAX - maximum saved value
MIN - minimum saved value
AVG - average value
D - variance VAR(x)



Saved values

Each value can be Deleted or Send to application

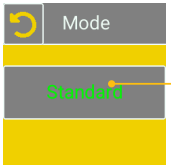




Button ALL select all values
All values can be Deleted or Send to application

MEMORY settings

Memory sub-menu



Selecting Standard mode or
No saving data to internal memory

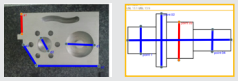
CONNECTION

MICROTECH

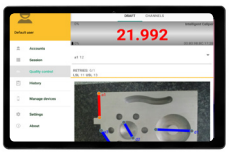
UP TO 50M

WIRELESS CONNECTION

IMPORT FROM FILE OR CAMERA



USB-DONGLE



Windows

iOS

android

DOWNLOAD

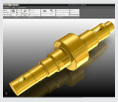
DOWNLOAD

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

QC

QUALITY CONTROL RESULTS

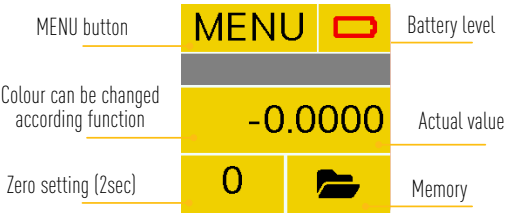
DATA TRANSFER DISTANCE FOR INTELLIGENT INSTRUMENTS

- 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

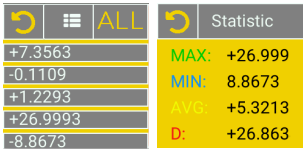
MICROTECH

MENU NAVIGATION

USE TOUCHSCREEN TO OPERATE MENU



MEMORY WITH STATISTIC



MENU CONFIGURATION

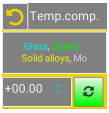
MAIN MENU

LIMITS
color Go/NoGo

MAX/MIN
indicating max or min value

FORMULA MODE
Ax^2+Bx+C

ERROR COMPENSATION
mathematical correction



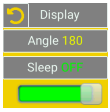
TEMPERATURE COMPENSATION
manual correction

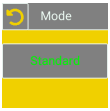
RESOLUTION
selected up to 0.0001mm

WIRELESS
modes of data transmition

USB
USB connection configuration

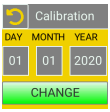
DEVICE SETTING
pin, reset





MEMORY SETTING

SOFTWARE
link to download app



CALIBRATION DATE

MICS SYSTEM FUNCTIONS

MICROTECH

LIMITS GO/NOGO

MENU SETTING

MAX value

MIN value

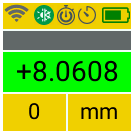
zero values

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

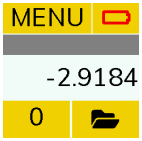
MAX/MIN

MENU SETTING

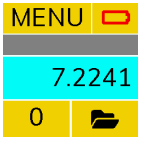
Indication and saving MAX or MIN values

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

MAIN SCREEN INDICATION



MIN

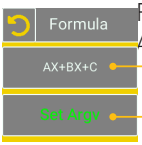


MAX

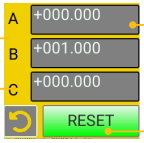
FORMULA

MENU SETTING

FORMULA Ax^2+Bx+C



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



Long push digit to select value

Reset to zero arguments

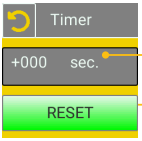
EXAMPLE OF FORMULA USING

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

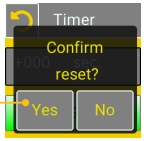
TIMER

MENU SETTING

Saving data to memory or sending Wireless by Timer



Select timer period
Reset to disactivate mode



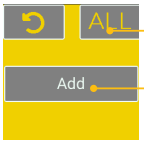
MICROTECH

MICS SYSTEM FUNCTIONS

MATHEMATICAL ERROR COMPENSATION

MENU SETTING

Mathematical correction points with big error to normal values



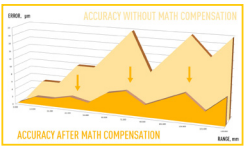
Select all points

Add new point for error compensation

actual values

correct values by up&down button

confirm point correction

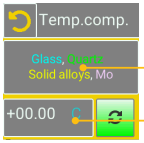


use gauge blocks or measuring machine for points correction

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)

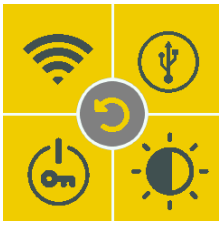
MENU SETTING

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

Reading base reconnection for some types of calipers

MICS SYSTEM FUNCTIONS

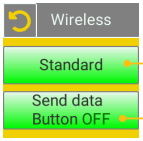
MICROTECH



WIRELESS CONNECTION

MENU SETTING

Activating or disactivating wireless data transfer



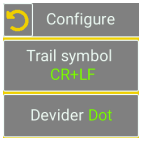
Switch on Wireless data transmition

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

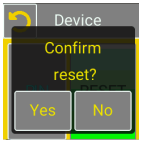


PIN & RESET

MENU SETTING

Activating PIN to device setting

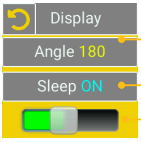
RESET to factory settings



DISPLAY SETTING

MENU SETTING

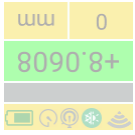
DISPLAY ROTATION, BRIGHTNESS, SLEEPING MODE



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



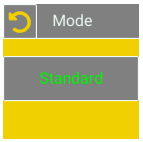
MICROTECH

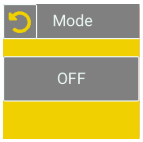
MICS SYSTEM FUNCTIONS

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

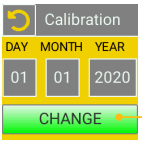
QR Link to MICROTECH web site page
with MDS Software download
- Android, iOS, Windows versions
- Free and Pro versions
- Manuals

Windows
iOS
ANDROID

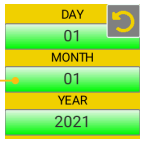
CALIBRATION DATE

MENU SETTING

Calibration date info



Push for change date info

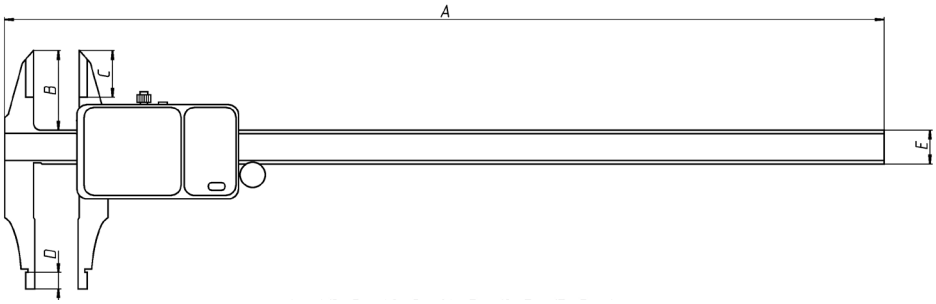


DEVICE INFO

MENU SETTING

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

DIMESIONAL DRAWINGS



Range	DIMENSIONS				
	A	B	C	D	E
mm	mm	mm	mm	mm	mm
0-300	413	40	24	10	17

MICROTECH

MICROTECH
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