



MICROTECH



DOUBLE RANGE COMPUTERIZED MICROMETER USER MANUAL



Calibration ISO 17025:2017



ISO 9001:2015



Item No	Range	Resolution	Accuracy	Protection class	Functions	Calibration
	mm	mm	mm			ISO 17025
110180517	0-50	0,0001	±0,0025	IP-65	Error & Temp	+
110181017	50-100	0,0001	±0,0025	IP-65	comp. Preset.	+
110181517	100-150	0,0001	±0,0040	IP-65		+
110182017	150-200	0,0001	±0,0040	IP-65	Memory Max/	+
110182517	200-250	0,0001	±0,0050	IP-65	Min Limits	+
110183017	250-300	0,0001	±0,0050	IP-65		+

Parameters	
LED display	color 1,5 inch
Power supply	Rechargeable Li-Pol battery
Lifetime	>80h (Medium brightness)
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch, Reset
Wireless data transfer	10m without external antenna 50m with external antenna (from set)

**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

SWITCH ON DEVICE - button push (1 sec)

SWITCH OFF DEVICE - auto switch off (configuring through DISPLAY SETTING menu)

- button push (3 sec)



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.

CHARGING

For charging connect USB cable



Charging process indicating
on Battery status
(switch on device)



BUILT-IN BATTERY - rechargeable Li-Pol battery

VIDEO INSTRUCTION





MAIN MENU

functions status

color indication Go/NoGo

ZERO setting

mm/inch conversion

Battery status

+8.0608

0 mm

Folders	001
001	+0.0020
002	+1.5509
+ New	+11.0781

MEMORY MANAGER
max 100000 values
folders system
transferring data from memory to PC

 LIMITS color Go/NoGo Max/Min Enable MAX MAX/MIN indicating max or min value A +00.0000 B +00.0000 C +00.0000 RESET FORMULA MODE Ax ² +Bx+C Timer +000 sec. RESET TIMER MODE saving or transfer data on timer	 ERROR COMPENSATION mathematical correction Temp. comp. None Mode +25.00 C TEMPERATURE COMPENSATION manual correction 4 materials Resolution X.0000 RESOLUTION selected up to 0.0001mm Extra Axis Mode Normal	 WIRELESS modes of data transmission Wireless Trans Normal 1 min USB USB connection configuration Device Auto start ON PIN RESET DEVICE SETTING autostart, reset, password Angle 0 Sleep off Light High SCREEN SETTING screen rotation, brightness	 MEMORY SETTING folder configuration Mode Folder +000 RESET SOFTWARE link to download app Calibration Date DAY MONTH YEAR 01 01 2020 CHANGE CALIBRATION STATUS calibration date control DEVICE INFO service info about device
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LIMITS
color Go/NoGo
Max/Min
Enable
MAX

MAX/MIN
indicating max or min value
A +00.0000
B +00.0000
C +00.0000
RESET

FORMULA MODE
Ax²+Bx+C
Timer
+000 sec.
RESET

TIMER MODE
saving or transfer data on timer

ERROR COMPENSATION
mathematical correction
Temp. comp.
None Mode
+25.00 C

TEMPERATURE COMPENSATION
manual correction 4 materials
Resolution
X.0000

RESOLUTION
selected up to 0.0001mm
Extra
Axis Mode
Normal

WIRELESS
modes of data transmission
Wireless Trans
Normal
1 min

USB
USB connection configuration
Device
Auto start ON
PIN
RESET

DEVICE SETTING
autostart, reset, password
Angle 0
Sleep off
Light High

SCREEN SETTING
screen rotation, brightness

MEMORY SETTING
folder configuration
Mode
Folder
+000
RESET

SOFTWARE
link to download app
Calibration Date
DAY MONTH YEAR
01 01 2020
CHANGE

CALIBRATION STATUS
calibration date control

DEVICE INFO
service info about device

app@microtech.ua
F411RE
FW: 1.1.1
MAC: 000000
ID: 00000000

DEVICE INFO
service info about device

CONNECTION



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USB CONNECTION



Windows®

DOWNLOAD



SAVING DATA
TO XLS.CSV
FORMATS



TRANSFER DATA TO
CAD, SPC OR OTHER
SOFTWARE



TRANSFER DATA TO
EXCEL OR OTHER
TABLE EDITORS



UP TO 50M



WIRELESS CONNECTION

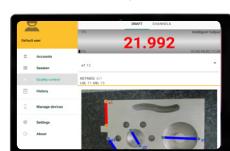
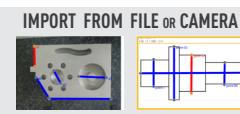


iOS

DOWNLOAD



SAVING DATA
TO XLS.CSV
FORMATS



ANDROID

DOWNLOAD



SAVING DATA
TO XLS.CSV
FORMATS



SAVING
GRAPH



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 necessary 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



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LIMITS GO/NOGO

MENU SETTING

MAIN SCREEN

MAX - NoGo over MAX value
MIN - NoGo over MIN value
RANGE - selecting GO range
NONE - No active mode

NoGo Go NoGo

FORMULA

A +00.0000
B +00.0000
C +00.0000
RESET

EXAMPLES:

- for value x^2 -
B=2
- set PRESET 100mm
C=100
- square value
A=1

Available Formulas:

- Ax^2+Bx+C
- Radius (for indicators)
- Sphere (for indicators)



FUNCTIONS MAX/MIN

Max/Min

Enable
MAX

ENABLE/DISABLE mode
indicating MAX dvalue
indicating MIN value

Status indication on main screen

TIMER

Timer

+000 sec.
RESET

Saving or transfer data by Timer
Select timer period
For disactive - reset to zero

Timer indication on main screen

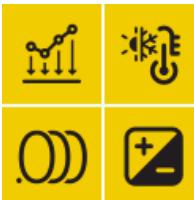
MATH. ERROR COMPENSATION

O: 01.0000
C: 01.0010
OK
RESET

Red value
- actual value on instrument

Green value
- compensated value

Use up&down button to update actual value (green) to correct value.
For compensation correction - push OK.
After points correction computerized instrument will recalculate values according corrected points



TEMPERATURE COMPENSATION

Temp. comp.

Glass, Quartz, Solid alloys, Mo
+25.00 C
OK

Re-calculation value to calibration conditions 20C
7 types of materials for selection
Manual temperature setting

EXTRA (Axis mode)

Extra

Axis Mode Normal

+/ - value indication

Selecting normal or inverted axis mode

RESOLUTION

Resolution

X.0000

+8.0608

Selecting instrument resolution

FUNCTIONS



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WIRELESS CONNECTION

Wireless Trans
Normal
1 min

WIRELESS status

+8.0608
0 mm

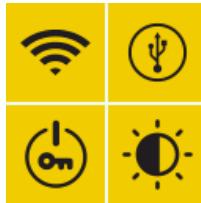
USB CONNECTION

Mode OFF
UART OFF
Keypad ON
CONRS

Windows

PIN

Device
Auto start ON
PIN RESET



DISPLAY SETTING

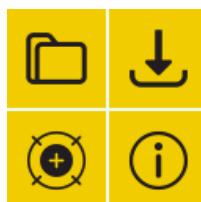
Angle 0
Sleep off
Rotation 0, 90, 180, 270
Sleep mode
Brightness level

mm
0
mm 0
8090°8+
mm 0

MEMORY MANAGER SETTINGS

Mode 001
Folder +0.0020
+000 +1.5509
RESET +11.0781

- Standard / Folder mode
In Folder mode possible to set qty values in each folder.



LINK TO SOFTWARE

Link to software
Free Software for Windows, Android, iOS

Link to page with MDS Software download
- for Android, iOS, Windows
- Free and Pro versions

CALIBRATION DATE

Calibration Date
DAY MONTH YEAR
01 01 2020
CHANGE

Saving or transfer data by Timer
Select timer period
For disactive - reset to zero

DEVICE INFO

app@microtech.ua
F411RE
FW: 1.1.1
MAC: 000000
ID: 00000000

Information about firmware version and MAC address for easy connection



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0.1 μ m



Free Software for Windows, Android, iOS

MICROTECH

innovative measuring instruments

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Change without prior notice

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