

# UNIVERSAL STAND MICROTECH

## USER MANUAL



Calibration ISO 17025:2017

ISO 9001  
BUREAU VERITAS  
Certification



ISO 9001:2015



Item No	Range	Resolution	Micrometer head		Calibration	Functions	Data output	
			Range	Accuracy			USB	Wireless
25111300	0-300	0,0001	25	±0,002	Bore gauges Indicators	Error comp.Temp.	+	max 50 m
25111500	0-500	0,0001	25	±0,002		comp Preset. Memory	+	max 50 m
25111500	0-1000	0,0001	25	±0,002		Max/Min Limits	+	max 50 m

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 throw DISPLAY SETTING menu)
  - button push (3 sec)



- Install calibrated device (indicator or bore gauge) to universal stand.
  - Turn on micrometer head by pressing SWITCH ON button.
  - Check the setting display to zero. Contact with each other measuring surfaces of micrometer head with calibrated device.
- Rotation the micrometer screw in the direction of convergence measuring surfaces.
- For zero setting, press the ZERO button on Touchscreen.
  - Use memory functions to saving calibration points.

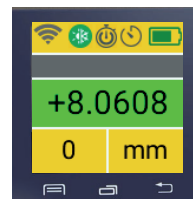
## CHARGING

For charging connect USB cable



**BUILT-IN BATTERY** - rechargeable Li-Pol battery

Charging process indicating on Battery status (switch on device)



## VIDEO INSTRUCTION





# MENU NAVIGATION

functions status

Battery status

color indication Go/NoGo

mm/inch conversion

ZERO setting

**MAIN MENU**

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

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

< +00.0001  
> +00.0001  
MIN

**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

01.0000  
OK  
RESET

**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

**AXIS MODE**  
normal or inverted

Wireless Trans

Normal

1 min

**WIRELESS**  
modes of data transmission

Mode OFF

UART OFF

Keypad ON

CONFG

**USB**  
USB connection configuration

Device

Auto start ON

PIN RESET

**DEVICE SETTING**  
autostart, reset, password

Angle

Sleep

Light High

**SCREEN SETTING**  
screen rotation, brightness

Mode

Folder

+000

RESET

**MEMORY SETTING**  
folder configuration

Link to software

**SOFTWARE**  
link to download app

Calibration Date

DAY MONTH YEAR

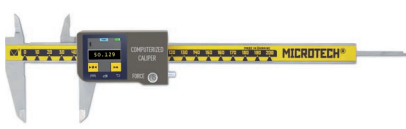
01 01 2020

CHANGE

**CALIBRATION STATUS**  
calibration date control

app@microtech.ua  
F411RE  
FW: 1.1.1  
MAC: 00000  
ID: 00000000

**DEVICE INFO**  
service info about device



USB CONNECTION

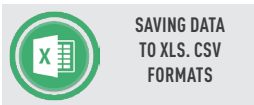
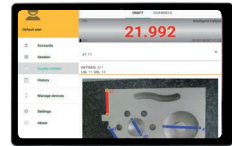
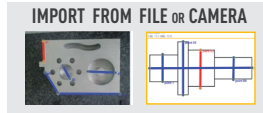


USB-DONGLE



UP TO 50M

WIRELESS CONNECTION



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

## 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 losing.
- 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



QUALITY CONTROL RESULTS



## LIMITS GO/NOGO

**MENU SETTING**

< +00.0001

> +00.0001

MIN

**MAIN SCREEN**

+8.0608

0 mm

NoGo Go NoGo

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

## FORMULA

A +00.0000

B +00.0000

C +00.0000

RESET

**EXAMPLES:**

- for value x2 - B=2
- set PRESET 100mm C=100
- square value A=1

Avialable Formulas:  
 - $Ax^2+Bx+C$   
 -Radius (for indicators)  
 -Sphere (for indicators)

## MATH. ERROR COMPENSATION

0.010000

0.010000

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

## RESOLUTION

Resolution

X.0000

+8.0608

Selecting instrument resolution

## MAX/MIN

Max/Min

Enable

MAX

Status indication on main screen

+8.0608

0 mm

ENABLE/DISABLE mode indicating MAX dvalue indicating MIN value

## TIMER

Timer

+000 sec.

RESET

Timer indication on main screen

+8.0608

0 mm

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

## TEMPERATURE COMPENSATION

Temp. comp.

Glass, Quartz  
 Solid alloys, Mo

+25.00

+8.0608

0 mm

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

## EXTRA (Axis mode)

Extra

Axis Mode

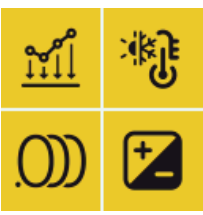
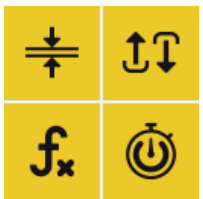
Normal

+/- value indication

+8.0608

0 mm

Selecting normal or inverted axis mode



# FUNCTIONS



MICROTECH

## WIRELESS CONNECTION

Wireless Trans

Normal

1 min

WIRELESS status

+8.0608

0 mm



## USB CONNECTION

Mode OFF

UART OFF

Keypad ON

CONFIG

Windows

## PIN

Device

Auto start ON

PIN RESET

## DISPLAY SETTING

Angle 0

Sleep off

Rotation 0, 90, 180, 270

Sleep mode

Brightness level

+8.0608

0 mm

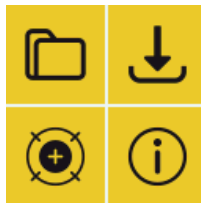
8090'8+

## 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

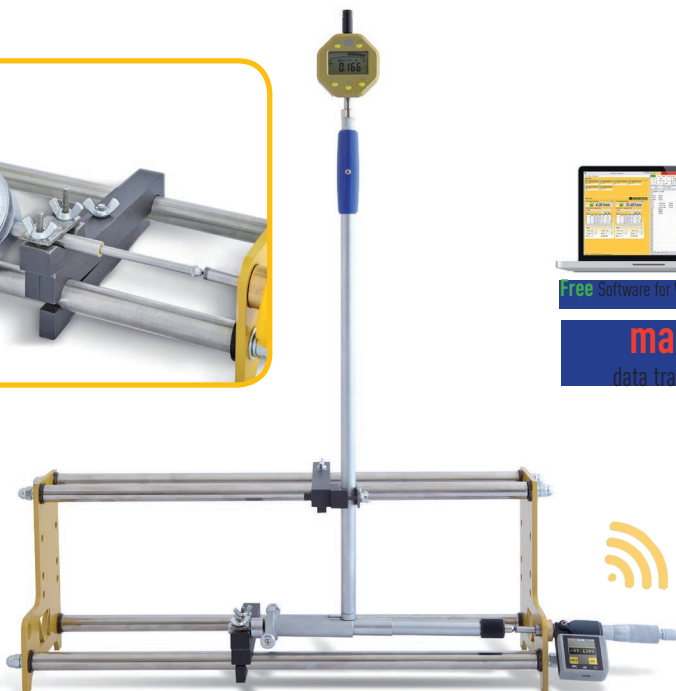
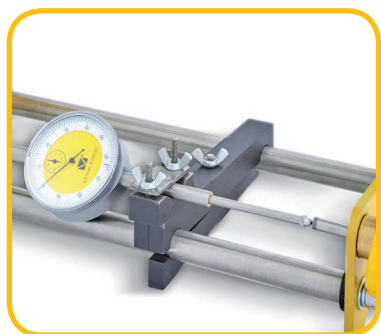
MAC: 00000

ID: 00000000

Information about firmware version and MAC adress for easy connection



**MICROTECH**



Free Software for Windows, Android, iOS

**max 50 m**  
data transfer distance



**MICROTECH**

innovative measuring instruments

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