




# MICROTECH 120129018 Computerized Test Indicator User Manual

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# MICROTECH

**MICROTECH 120129018 Computerized Test Indicator**



## Product Information

The Microtech Sub-Micron Computerized Test Indicator is a precision measuring tool that is compliant with ISO17025:2017 and ISO 9001:2015 standards. It features a color 1.5-inch touch-screen display with a resolution of 240×240 pixels. The indicator has a measuring range of -0.8 to +0.8 mm (or -0.03 to +0.03 inch) with a resolution of 0.0001 mm (or 0.00001 inch). The accuracy of the indicator is within the range of -0.8 to +0.8 mm (or -0.03 to +0.03 inch) and -1.6 to +1.6 mm (or -0.06 to +0.06 inch) respectively.

The indicator is equipped with a probe length of 30 mm (ruby ball) and 16 mm (steel ball) with measuring forces of 0.1-0.18 N and 0.15-0.25 N respectively. It has an IP54 protection rating, making it resistant to dust and water splashes.

The Microtech Sub-Micron Computerized Test Indicator supports data output via wireless and USB connections. It comes with free software compatible with Windows, Android, and iOS devices for data transfer and analysis. The indicator also features a multifunctional button for easy operation.

## Product Usage Instructions

### Charging

1. Connect the Microtech indicator to a power source using the provided micro-USB cable.
2. The battery status will be indicated on the device during the charging process.



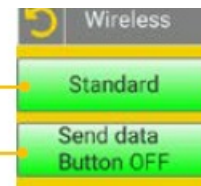
## WIRELESS DATA TRANSFER

1. Activate the wireless data transfer function in the wireless menu.

- Switch on the wireless data transmission.
- To save a value to memory or send data, activate the multifunctional button or use the touchscreen.

Switch on Wireless data transmission

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



2. Connect instrument with MICS indication system to Tablet or PC Send data to Tablet or PC:

- By touchscreen
- By multifunctional button push (activated in the wireless menu)
- By timer (activated in the 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)

	Statistic
MAX:	+26.999
MIN:	8.8673
AVG:	+5.3213
D:	+26.863

Saved values

Each value can be Deleted or Send to application

	ALL
	+7.3563
	-0.1109
	+1.2293
	+26.9993
	-8.8673

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

## MENU NAVIGATION



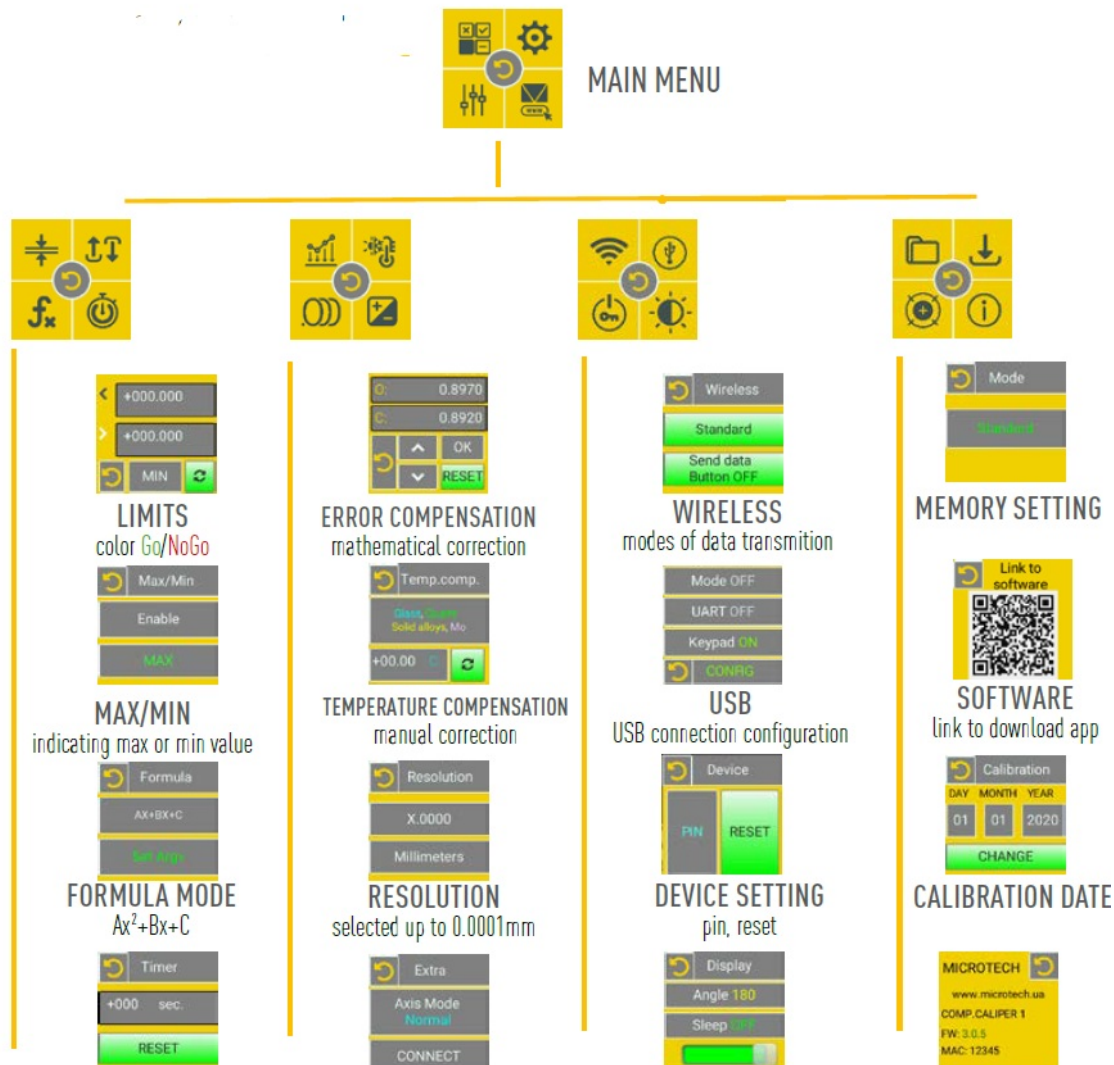
USE TOUCHSCREEN TO OPERATE MENU

MENU button	MENU	Battery level
Colour can be changed according function	-0.0000	Actual value
Zero setting	0	Memory

## MEMORY WITH STATISTIC

ALL	Statistic
+7.3563	MAX: +26.999
-0.1109	MIN: 8.8673
+1.2293	AVG: +5.3213
+26.9993	D: +26.863
-8.8673	

## MENU CONFIGURATION



### Limits and Error Compensation

The Microtech indicator supports limits and error compensation.

The color indication limits can be set for maximum and minimum values. The indicator offers mathematical correction for error compensation. There are modes for data transmission, USB connection configuration, software download, formula mode, resolution selection, device setting, calibration date, and MICS system functions.

### SPECIFICATION

Item No	Range		Resolution	Accuracy	Probe		Measuring Force	Protection	Display	Data output
					Length	Ball				
	mm	inch	mm	$\mu\text{m}$	mm		N			
120129018	-0.8- +0.8	-0.03" - +0.03"	0,0001	$\pm 5$	30	Ruby	0,1-0,18	IP54	Color 1.5" Touch-screen	<b>WIRELESS +USB</b>
120129038	-1.6 - +1.6	-0.06" - +0.06"		$\pm 10$	16	Steel	0,15-0,25	IP54		



## TECHNICAL DATA

LED display	color 1,54 inch
Resolution	240×240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	350 mAh
Charging port	micro-USB
Case material	Aluminium
Buttons	Switch (Multifunctional), Reset
Wireless data transfer	Long range

## CONNECTION





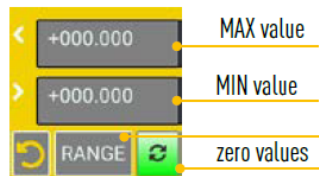
## MICS SYSTEM FUNCTIONS



- LIMITS GO/NOGO



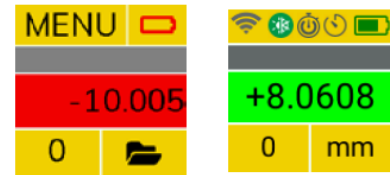
## MENU SETTING



## 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

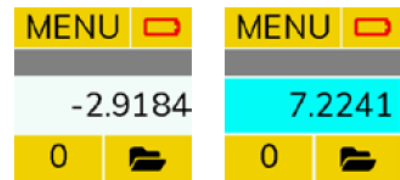
## MENU SETTING



## Indication and saving MAX or MIN values

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

## MAIN SCREEN INDICATION

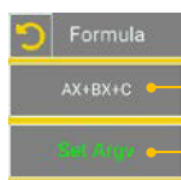


MIN

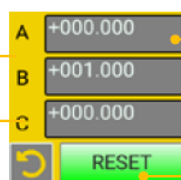
MAX

### • FORMULA

## MENU SETTING



Formula:  
 $Ax^2+Bx+C$



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



## Saving data to memory or sending Wireless by Timer

Select timer period  
 Reset to disactivate mode



### • MATHEMATICAL ERROR COMPENSATION



## MENU SETTING

Mathematical correction points with big error to normal values



Select all points

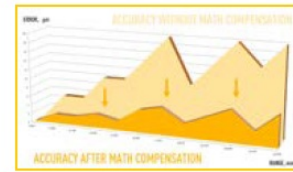
Add new point for error compensation



actual values

correct values by up&down button

confirm point correction

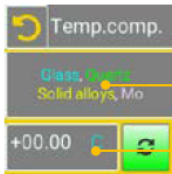


use gauge blocks or measuring machine for points correction

## • TEMPERATURE COMPENSATION

### MENU SETTING

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



7 types of material for selection

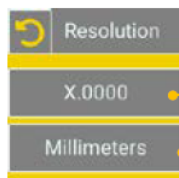
Manual Temperature setting

7 types of material:

- glass, quartz, solid alloys
- granite, graphite
- Fe, Ni, Fe alloys
- stainless steel
- cooper, Cu alloys
- aluminium, al alloys
- acrylic sheet

## • RESOLUTION

### MENU SETTING



Resolution selecting

mm/inch conversion

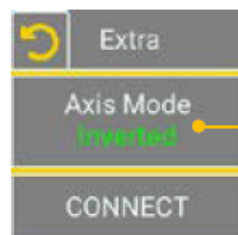
### MAIN SCREEN INDICATION

**+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



## • WIRELESS CONNECTION

## MENU SETTING

### Activating or disactivating wireless data transfer



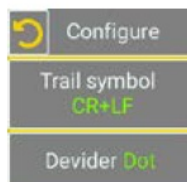
Switch on Wireless or USB data transmission

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



#### • USB CONNECTION

### MENU SETTING



Connect instrument with USB cable to PC or iother device  
Switch ON USB data transmission in Wireless menu  
Select in this menu data transfer format  
Data will be send to PC or other evic in keyboard mode  
**Don't switch off USB cable during data transfer**

#### • PIN & RESET

### MENU SETTING



### Activating PIN to device setting

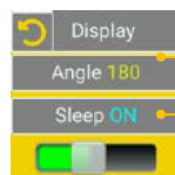


### RESET to factory settings



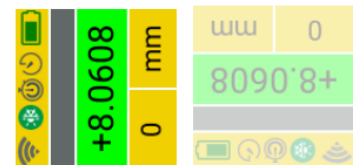
#### • DISPLAY SETTING

### MENU SETTING



Display rotation 0°, 90°, 180°, 270°

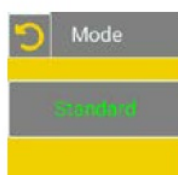
- Sleep OFF (15 s low brightness off, sleep off)
- Sleep 15s (15 s low brightness on, sleep off)
- Sleep ON (15 s low brightness on, sleep on)



#### • MEMORY SETTINGS

### MENU SETTING

### Activating or disactivating saving values to memory



**Standard** - saving values to memory  
**OFF** - disable saving to memory



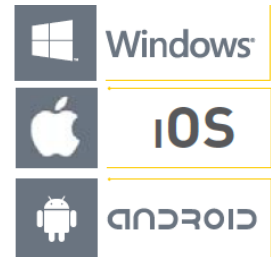
#### • LINK TO SOFTWARE

## MENU SETTING



QR Link to MICROTECH web site page  
with MDS Software download

- Android, iOS, Windows versions
- Free and Pro versions
- Manuals



### • CALIBRATION DATE

## MENU SETTING



## Calibration date info



Push for change date info

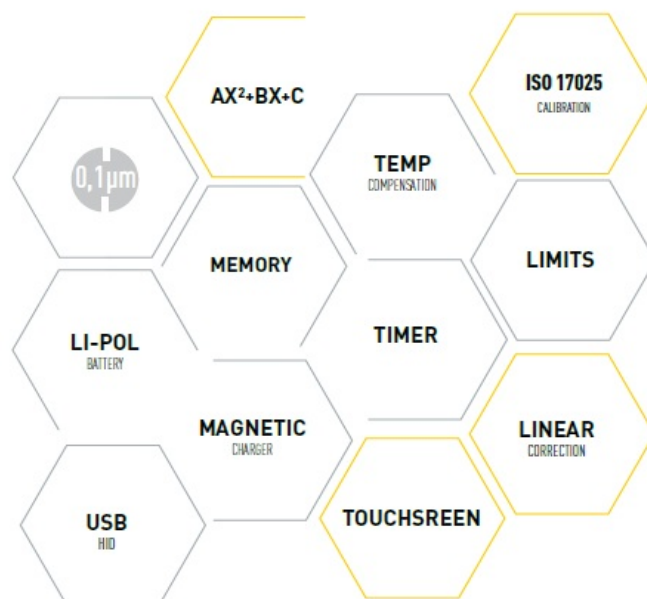
### • DEVICE INFO

## MENU SETTING



Information about device

- device name
- firmware version
- MAC address for easy connection



## MICROTECH

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## Documents / Resources

 <p>The image shows a handheld electronic device with a yellow screen and a probe, labeled 'SUB-MICRON COMPUTERIZED TEST INDICATOR'. Below it is the cover of the 'USER MANUAL' for the '120129018' model.</p>	<p><a href="#">MICROTECH 120129018 Computerized Test Indicator</a> [pdf] User Manual</p> <p>120129018 Computerized Test Indicator, 120129018, Computerized Test Indicator, Test Indicator, Indicator</p>
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## References

-  [Main page - MICROTECH - Innovative measuring instruments](#)