



Microtech 134202005 Sub Micron Computerized Gauge For External Measuring User Manual

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Microtech 134202005 Sub Micron Computerized Gauge For External Measuring



Product Information

The MICROTECH Sub-Micron Computerized Gauge for External Measuring is a high-precision measuring tool designed for accurate external measurements. It is calibrated according to ISO 17025:2017 and ISO 9001:2015 standards, ensuring reliable and consistent measurements.

Specification

Item No	Range (mm)	Range (inch)
134202005	0-20	0-0.8
134203005	10-30	0.4-1.2
134204005	20-40	0.8-1.6
134205005	30-50	1.2-2
134206005	40-60	1.6-2.4

The MICROTECH Sub-Micron Computerized Gauge offers a resolution of 0.001mm (0.00005 inch) and provides accurate measurements with a high level of precision. It features a computerized MICS system with a 1.54-inch touchscreen for easy and intuitive operation. The gauge also supports data output and calibration according to ISO 17025 standards.

Additional features include a wireless data transfer capability with a maximum range of 50m, compatibility with Windows, Android, and iOS devices, and a multifunctional button for convenient operation.

Technical Data

- **LED display:** Color
- **Resolution:** 1.54-inch 240×240

- **Indication system:** MICS 3.0
- **Power supply:** Rechargeable Li-Pol battery
- **Battery capacity:** 400 mAh (depends on the device)
- **Charging port:** Micro-USB
- **Case material:** Aluminium
- **Buttons:** Switch (Multifunctional), Reset
- **Wireless data transfer:** Up to 50m on open area

Product Usage Instructions

Charging

To charge the MICROTECH Sub-Micron Computerized Gauge, connect it to a power source using the provided USB cable. The charging process will be indicated on the gauge's battery status display.

Data Transfer

To transfer data wirelessly, activate the wireless data transfer feature on the gauge. Connect the gauge with the MICS indication system to a tablet or PC. You can send data to the tablet or PC using the touchscreen, the multifunctional button, a timer (activated in the timer menu), or from the internal memory. Additionally, you can activate USB data transfer by connecting the gauge with a USB cable to any operating system and app in keyboard mode.

Memory

To save measuring data to the internal caliper's memory, touch the data area on the screen or press the button. You can view the saved data through the menu or send it wirelessly or via USB connection to Windows PC, Android, or iOS devices. The memory can store up to 2000 values, and you can use either the standard or folders system for organizing the data.

Limits and Settings

The MICROTECH Sub-Micron Computerized Gauge offers various settings and functions that can be accessed through the menu. These include limits configuration (Go/NoGo), error compensation, wireless modes of data transmission, memory settings, USB connection configuration, software download, formula mode ($Ax2+Bx+C$), resolution selection, device settings (pin reset), and calibration date. For further details on using these functions, please refer to the user manual.

SPECIFICATION

Item No	Range		Resolution		Accuracy	Indication	Data output	Calibration
	mm	inch	mm	inch	μm		Wireless	ISO 17025
134202005	0-20	0-0.8"	0,001	0.00005"	± 20	computerized MICS system with 1,54" touchscreen	max 50 m	+
134203005	10-30	0.4-1.2"			± 20		max 50 m	+
134204005	20-40	0.8-1.6"			± 20		max 50 m	+
134205005	30-50	1.2-2"			± 20		max 50 m	+
134206005	40-60	1.6-2.4"			± 20		max 50 m	+



TECHNICAL DATA

Parameters	
LED display	color 1,54 inch
Resolution	240×240
Indication system	MICS 3.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	400 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



BUILT-IN BATTERY – rechargeable Li-Pol battery

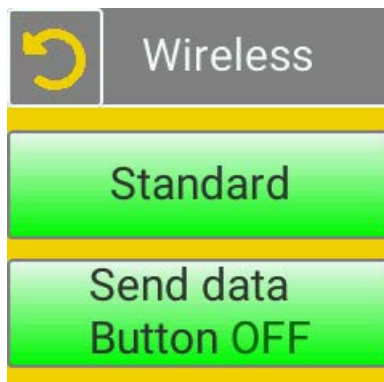
For charging connect USB cable

Charging process indicating on Battery status (switch on device)

DATA TRANSFER

Activate WIRELESS data transfer

Connect caliper with MICS indication system to Tablet or PC Send data to Tablet or PC:



- by Touchscreen

- by button push
- by Timer (activated in Timer menu)
- from Internal Memory
- with activated Automatic Force mode (activated in Force menu) Activate USB data transfer
- connecting with USB cable to any OS and app in keyboard mode
- sending direct data with usual USB cable
- send values by Touchscenn, Button push, Timer, Memory



MEMORY

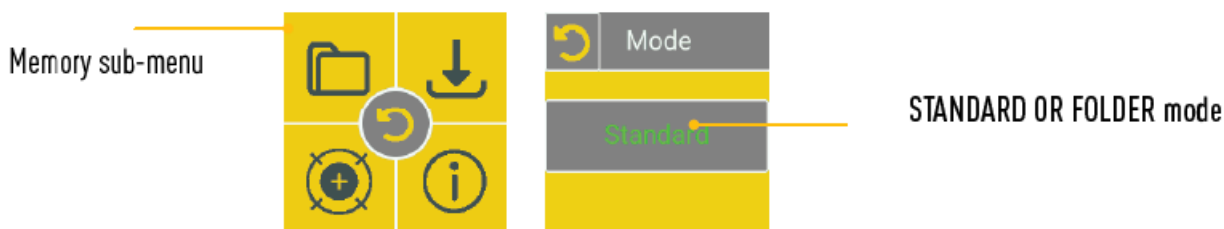
For save measuring data to internal caliper's memory touch data area on screen or button push. You can view saved data throw menu or send Wireless or USB connection to Windows PC, Android or iOS devices. You can save up to 2000 values to memory

It's possible to use Standard or Folders system.



STANDARD or FOLDER system can be activated throw MEMORY menu

MEMORY settings



CONNECTION



DOWNLOAD APP

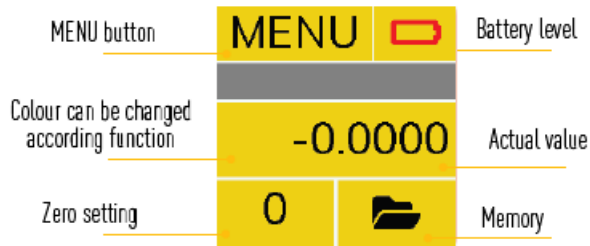


DOWNLOAD MDS APP FOR MICROTECH DEVICES WIRELESS CONNECTION FROM www.microtech.ua, GooglePlay & App Store

MENU NAVIGATION



USE TOUCHSCREEN TO OPERATE MENU
SWIPE TO MOVE INSIDE MENUS



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



MAIN MENU



LIMITS
color Go/NoGo



MAX/MIN
indicating max or min value



FORMULA MODE
 Ax^2+Bx+C



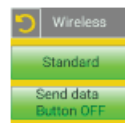
ERROR COMPENSATION
mathematical correction



TEMPERATURE COMPENSATION
manual correction



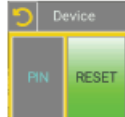
RESOLUTION
selected up to 0.0001mm



WIRELESS
modes of data transmission



USB
USB connection configuration



DEVICE SETTING
pin, reset



MEMORY SETTING



SOFTWARE
link to download app



CALIBRATION DATE

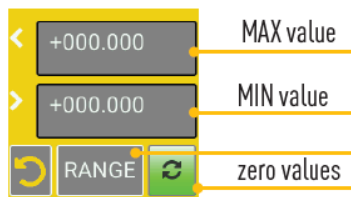


MICS SYSTEM FUNCTIONS



LIMITS GO/NOGO

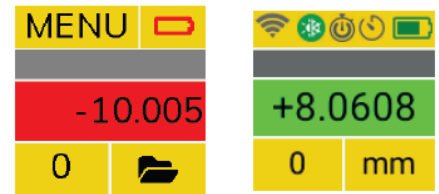
MENU SETTING



Colour indication limits

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

MAIN SCREEN INDICATION

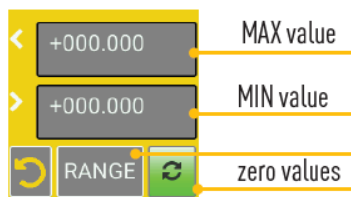


NoGo

Go

MAX/MIN

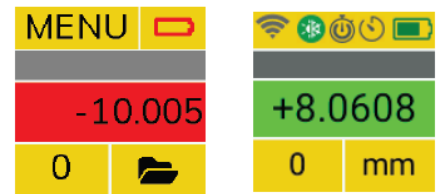
MENU SETTING



Colour indication limits

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

MAIN SCREEN INDICATION

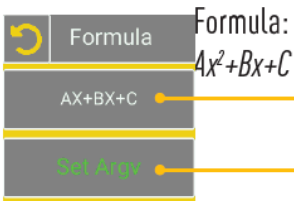


NoGo

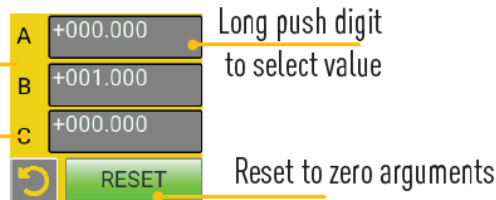
Go

FORMULA

MENU SETTING



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

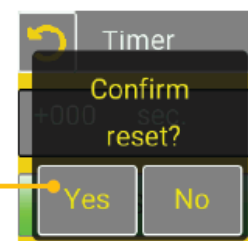
TIMER

MENU SETTING



Saving data to memory or sending Wireless by Timer

Select timer period
 Reset to disactivate mode

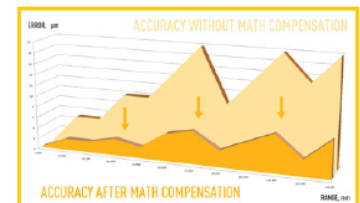
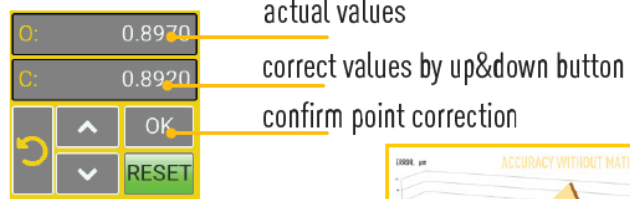
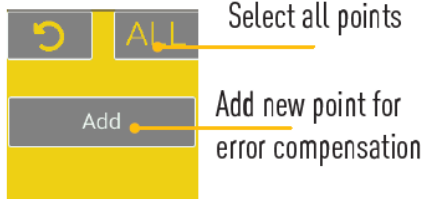




MATHEMATICAL ERROR COMPENSATION

MENU SETTING

Mathematical correction points with big error to normal values

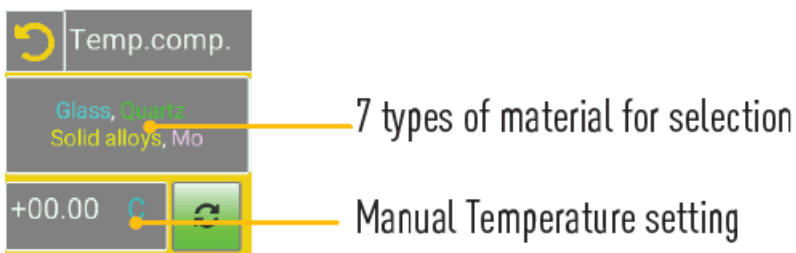


use gauge blocks or measuring machine for points correction

TEMPERATURE COMPENSATION

MENU SETTING

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



7 types of material:

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

RESOLUTION

MENU SETTING



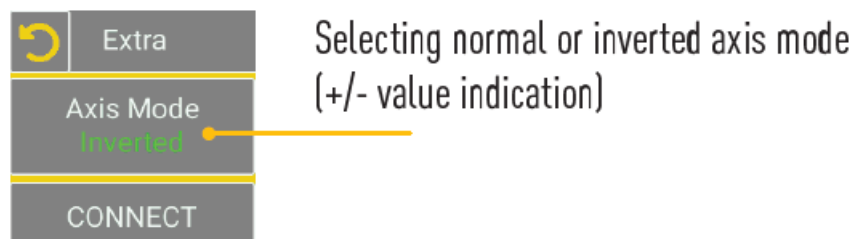
MAIN SCREEN INDICATION

+8.0608

Selecting resolution of value on main screen and memory

EXTRA (Axis mode)

MENU SETTING



WIRELESS CONNECTION

MENU SETTING

Activating or deactivating wireless data transfer



SELECTING WIRELESS DATA TRANSFER POWER

USB CONNECTION

MENU SETTING



Connect USB cable to PC

Activate USB connection mode

Select setting of data transfer

You can direct transfer data to any App in Windows, MacOS, Linux, Android devices

ACTIVATE FIRMWARE UPDATE IF NECESSARY

RESET TO FACTORY SETTINGS

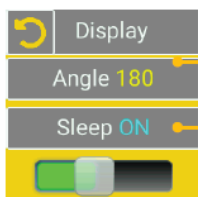
RESET to factory settings



DISPLAY SETTING

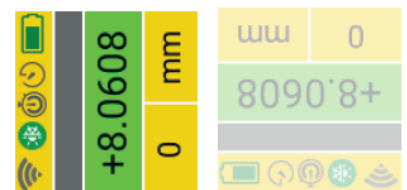
MENU SETTING

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)



MEMORY SETTINGS

MENU SETTING

Stat	All	Stat	All
Page 3/3		1:	0.0000
7	7	2:	1.2334
5	6	3:	1.2337
7	7	4:	1.2333
2		5:	1.2341

FOLDERS SYSTEM MEMORY 2000 VAL.

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
DAY MONTH YEAR
01 01 2020
CHANGE

Calibration date info

DAY	01
MONTH	01
YEAR	2021

Push for change date info

DEVICE INFO

MENU SETTING

MICROTECH
www.microtech.ua
COMP.CALIPER 1
FW: 3.0.5
MAC: 12345

Information about device

- device name
- firmware version

- MAC adress for easy connection

OPTIONAL ACCESORIES



FUNCTIONS

- Limits (Go/NoGo)
- Peak values (Max/Min)
- Memory, with statistics
- Timer
- Formula aX^2+bX+c
- mm/inch
- Preset
- Calibration date control
- PIN Lock
- Linear correction
- Temperature compensation
- Rechargeable Li-Pol battery
- Magnetic charging socket
- WIRELESS apps for Windows, Android, iOS data transfer to MDS
- USB HID data transfer direct to Windows,
- MacOS, Android, Linux app's

MICROTECH

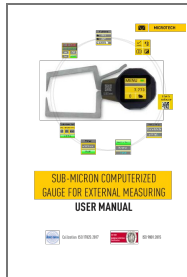
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tool@microtech.ua

Documents / Resources



[Microtech 134202005 Sub Micron Computerized Gauge For External Measuring](#) [pdf] User Manual

134202005, 134203005, 134204005, 134205005, 134206005, 134202005 Sub Micron Computerized Gauge For External Measuring, 134202005, Sub Micron Computerized Gauge For External Measuring, Micron Computerized Gauge For External Measuring, Computerized Gauge For External Measuring, Gauge For External Measuring, For External Measuring, External Measuring, Measuring

References

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

Manuals+.