



# SUB-MICRON COMPUTERIZED INTERNAL 3 POINT MICROMETER

## USER MANUAL





Item No	Range		Resolution		Accuracy	Max depth	Setting ring	Indication
	mm	inch	mm	inch	µm	mm		
133700210	2-2.5	0.08-0.09"	0,0001	0.00001"	±3	154	+	computerized MICS system with 1.54" touchscreen
133700310	2.5-3	0.09-0.12"			±3	154	+	
133700410	3-4	0.12-0.16"			±3	154	+	
133700510	4-5	0.16-0.20"			±3	154	+	
133700610	5-6	0.20-0.24"			±4	154	+	
133700810	6-8	0.24-0.32"			±4	154	+	
133701010	8-10	0.32-0.4"			±4	154	+	
133701210	10-12	0.4-0.5"			±4	154	+	
133701610	12-16	0.5-0.63"			±4	230	+	
133702010	16-20	0.63-0.8"			±4	230	+	
133702510	20-25	0.8-1"			±4	240	+	
133703010	25-30	1-1.2"			±4	240	+	
133704010	30-40	1.2-1.6"			±4	240	+	
133705010	40-50	1.6-2"			±4	240	+	
133707010	50-70	2-3"			±4	250	+	
133710010	70-100	3-4"			±4	250	+	
133715010	100-150	4-6"			±4	250	+	
133725010	150-250	6-10"			±5	250	+	
133730010	200-300	8-12"			±6	250	+	
133750010	200-500	8-20"			±8	650		
133790011	200-1000	8-40"	±11	1150				

## TECHNICAL DATA

Parameters	
LED display	color 1,54 inch
Resolution	240x240
Indication system	MICS 4.0
Power supply	Rechargeable Li-Pol battery
Battery capacity	450 mAh
Charging port	micro-USB / Magnetic port
Case material	Aluminium
Buttons	Switch (Multifuntional), Reset
Wireless data transfer	Ultra long range
USB data transfer	USB HID



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

For charging connect USB cable

# BUTTONS

- SWITCH ON DEVICE** - button push (1 sec)
- SWITCH OFF DEVICE** - button push (2 sec)/ auto switch off
- DATA TRANSFER** - programming throw menu



# MAIN SCREEN

**CONNECTION STATUS**

- WIRELESS DISCONNECTED
- WIRELESS CONNECTED
- WIRELESS HID CONNECTED
- USB HID DISCONNECTED
- USB HID CONNECTED

Labels for screen elements:

- MENU button
- Battery level
- Last saved value
- Actual value
- Zero setting
- MEMORY WITH STATISTIC



# DATA TRANSFER

## 3 MODES OF DATA TRANSFER (USB + 2 WIRELESS MODES)

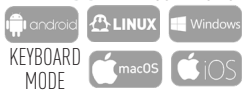


### WIRELESS CONNECTION TO MDS APP



WIRELESS data transfer to MICROTECH MDS app for Windows, Android, iOS

### WIRELESS HID CONNECTION



WIRELESS HID data transfer (like keyboard) direct to any customers app and system

### USB HID CONNECTION

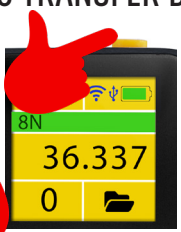


USB HID data transfer (like keyboard) direct to any customers app and system

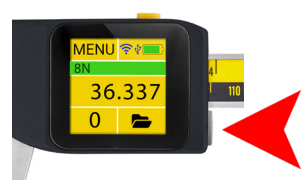
## 7 WAYS HOW TO TRANSFER DATA TO PC OR TABLET



TOUCHSCREEN TAP



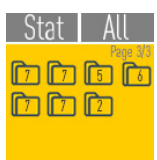
BUTTON PUSH



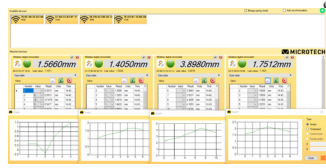
SELECTED FORCE



BY TIMER



FROM MEMORY



IN MDS APP



FROM PAIRED DEVICE



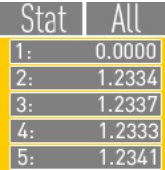
# MEMORY

For save measuring data to internal device 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.

It's possible to use Standard or Folders system with 2000 values in memory.



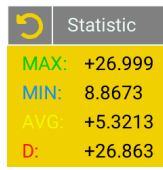
FOLDERS SYSTEM



MEMORY 2000 VAL.



MEMORY EXPORT



STATISTIC

**Basic STATISTIC functions:**

MAX - maximum saved value

MIN - minimum saved value

AVG - average value

D - difference between MAX & MIN

STANDARD or FOLDER system can be activated throw MEMORY menu

# DOWNLOAD APP

DOWNLOAD MDS APP FOR MICROTECH DEVICES  
WIRELESS CONNECTION FROM [www.microtech.ua](http://www.microtech.ua),  
GooglePlay & App Store

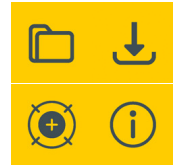
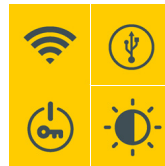
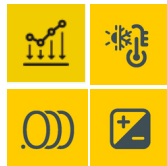


# MENU STRUCTURE

## MENU CONFIGURATION



USE TOUCHSCREEN TO  
OPERATE MENU  
SWIPE TO MOVE INSIDE





## LIMITS mode GO/NOGO



MAX - NoGo more Upper limit  
 MIN - NoGo less Lower limit  
 RANGE - Go between Limits

## COLOR INDICATION LIMITS ON MAIN SCREEN Go NoGo

>	2.000	Upper limit
<	3.000	Lower limit
%	20	
SCALE	RES	

## PEAK mode MAX/MIN



DISABLE - non active mode  
 ENABLE - activating mode  
 REFRESH - refresh peak value according timer

## INDICATION AND SAVING MAX OR MIN VALUES

Max/Min	
Enabled	MAX - indicating MAX measured value MIN - indicating MIN measured value
MAX	

## TIMER mode



## SAVING DATA TO MEMORY OR SENDING WIRELESS/USB BY TIMER

Timer	
0.000 sec	Select timer period
Reset	Reset to deactivate mode

## FORMULA mode



Formula	
Ax <sup>2</sup> +Bx+C	Select FORMULA Type (Math, Radius or other)
Set Argv	Select arguments

## RESOLUTION selection



Resolution	
X.0000	Resolution selecting
mm	mm/inch conversion

## DISPLAY settings



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)

Display	Display rotation 0°, 90°, 180°, 270°
Angle 270	
Sleep ON	Brightness level

## LINEAR error compensation



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

## Linear correction error's on device actual values

O: 17.251	actual values
C: 17.258	correct values by up&down button
UP	confirm point correction
DN	
OK	
RES	

## TEMP compensation



Manual Temperature setting

Temp.com.	
Cu, Cu alloys	
27.5°C	RES

4 types of material for selection:

- Glass, Quartz
- Stainless steel
- Cuprum and alloys
- Alluminium and alloys

# FUNCTIONS



MICROTECH

## WIRELESS data transfer



Reconnection button  
Wireless power  
regulation



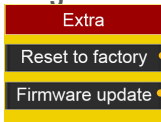
**ON** - WIRELESS data transfer to MDS App for Android, iOS, Windows  
**HID**- WIRELESS HID direct transfer data to any App in Windows, MacOS, Linux, Android devices (like keyboard). Configure data format in USB sub-menu  
**2D-S** - Slave device on WIRELESS connection on HUB mode

## USB OTG data transfer



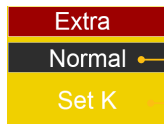
Connect USB cable to PC & Activate USB HID connection mode  
Select setting of data transfer  
Direct transfer data to any App in Windows, MacOS, Linux, Android devices  
Configuring data transfer Dot/Comma and Tab/Arrow Down/CR+LF

## RESET to Factory settings



Push 10 times to RESET device to factory settings  
Push 10 times to FIRMWARE UPDATE

## EXTRA



Selecting normal or inverted axis mode (+/- value indication)  
Coefficient setting (for distributor and calibration only)

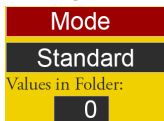
## LINK to app's



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

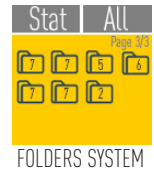


## MEMORY manager setting

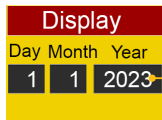


Activating STANDARD or FOLDER SYSTEM

Values in each Folder



## CALIBRATION date info



Push for change calibration date info

## Device INFO



Information about device  
- Firmware version  
- MAC adress for WIRELESS connection

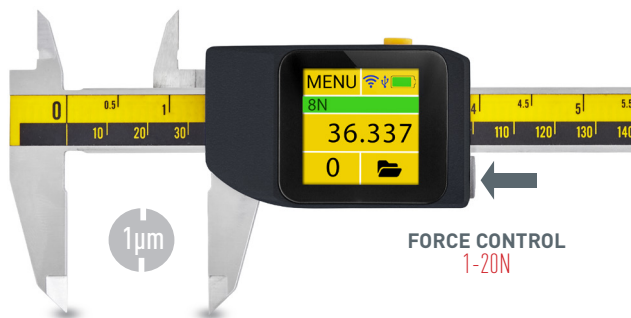


**MICROTECH**

# INDUSTRY 4.0 INSTRUMENTS



0,1µm



1µm

**FORCE CONTROL**  
1-20N



0,1µm



0,1µm



1µm

**MICROTECH**

innovative measuring instruments

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Change without prior notice