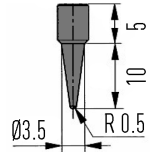
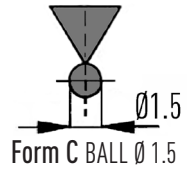




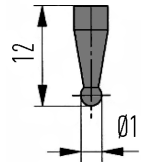
Form A CONE R 0,5 R 0,75



Form B POINT R 0.5



Form C BALL Ø 1.5



Form D BALL Ø 1

# MICRON COMPUTERIZED GAUGE FOR EXTERNAL MEASURING USER MANUAL



Calibration ISO 17025:2017

ISO 9001  
BUREAU VERITAS  
Certification



ISO 9001:2015

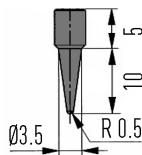


Item No	Range	Span	Depth	Groove depth	Measur contact	Contact points	Reso- lution	Repea- tability	Accu- racy	Preset	Go/NoGo	Max/Min	Formula	Timer	Temp comp	Linear corr	Calibr date	FW update	Recharge				
	mm	mm	mm	mm	mm	mm	mm	mm	µm														
<b>INTERNAL COMPUTERIZED CALIPER GAUGE CONE contact (Form A)</b>																							
134102505	5-25	20	35	1	1,5	Cone R 0,3	0,001	0,005	±15	•	•	•	•	•	•	•	•	•	•	•			
134104005	20-40	20	80	3	6,5	Cone R 0,5		0,005	±15	•	•	•	•	•	•	•	•	•	•	•	•		
134106005	40-60	20	80	3	8,5			0,005	±15	•	•	•	•	•	•	•	•	•	•	•	•	•	
<b>INTERNAL COMPUTERIZED CALIPER GAUGE POINT contact (Form B)</b>																							
134105025	30-50	20	80	3.5	12	Point R 0.5	0,001	0,01	±20	•	•	•	•	•	•	•	•	•	•	•	•		
134107025	50-70	20	80	3.5	12			0,01	±20	•	•	•	•	•	•	•	•	•	•	•	•	•	
134109025	70-90	20	80	3.5	22			0,01	±25	•	•	•	•	•	•	•	•	•	•	•	•	•	
<b>INTERNAL COMPUTERIZED CALIPER GAUGE BALL contact (Form C)</b>																							
134103035	10-30	20	55	2	3,5	Ball Ø 1.5	0,001	0,005	±15	•	•	•	•	•	•	•	•	•	•	•	•		
134105035	30-50	20	80	3	8,5			0,005	±15	•	•	•	•	•	•	•	•	•	•	•	•	•	
<b>INTERNAL COMPUTERIZED CALIPER GAUGE BALL contact (Form D)</b>																							
134104545	25-45	20	80	3.5	15	Ball Ø 1	0,001	0,005	±20	•	•	•	•	•	•	•	•	•	•	•	•		
134106545	45-65	20	80	3.5	15			0,005	±20	•	•	•	•	•	•	•	•	•	•	•	•	•	
134108545	65-85	20	80	3.5	25			0,01	±25	•	•	•	•	•	•	•	•	•	•	•	•	•	
134110045	50-100	50	180	3.5	15			Ball Ø 2	0,02	±40	•	•	•	•	•	•	•	•	•	•	•	•	•
134115045	100-150	50	180	3.5	15				0,02	±50	•	•	•	•	•	•	•	•	•	•	•	•	•
134120045	150-200	50	180	3.5	15				0,03	±50	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>INTERNAL COMPUTERIZED CALIPER GAUGE INTERCHANGEABLE BALL contact (Form D)</b>																							
134110575	45-105	20	80	3.5	variable	Ball Ø 1	0,001	0,01	±30	•	•	•	•	•	•	•	•	•	•	•	•		
134120075	100-220	50	180	3.5	variable	Ball Ø 2		0,03	±60	•	•	•	•	•	•	•	•	•	•	•	•	•	

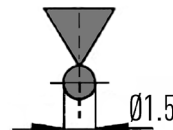
## CONTACT POINTS



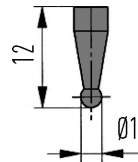
Form A CONE R 0,5 R 0.75



Form B POINT R 0.5



Form C BALL Ø 1.5



Form D BALL Ø 1



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
Case material	Aluminium
Buttons	Switch (Multifunctional), Reset
Wireless data transfer	Ultra long range / HID
USB data transfer	USB HID

## CHARGING

**SWITCH ON DEVICE** - button push (1 sec)

**SWITCH OFF DEVICE** - button push (2 sec)/ auto switch off

**DATA TRANSFER** - programming throw menu



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



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



### WIRELESS CONNECTION TO MDS APP



**FREE SOFTWARE**  
Windows iOS Android

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

### WIRELESS HID CONNECTION



KEYBOARD MODE

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

### USB HID CONNECTION



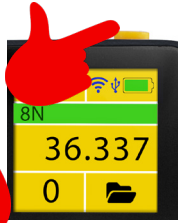
KEYBOARD MODE

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

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



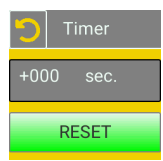
TOUCHSCREEN TAP



BUTTON PUSH



SELECTED FORCE



BY TIMER



FROM MEMORY



IN MDS APP



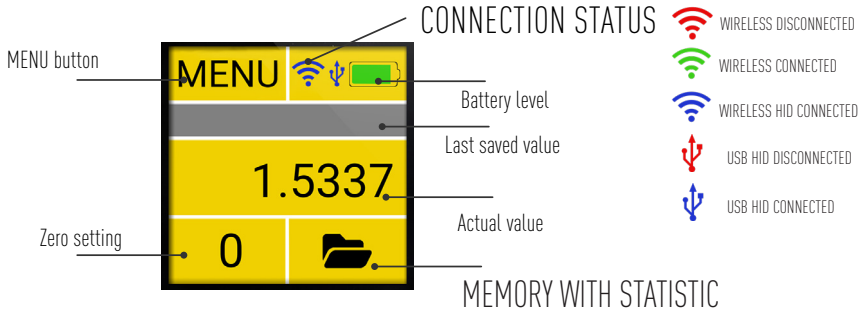
FROM PAIRED DEVICE

## DOWNLOAD APP

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



# MAIN SCREEN



# 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.

<table border="1"> <thead> <tr><th>Stat</th><th>All</th></tr> </thead> <tbody> <tr><td>7</td><td>7</td></tr> <tr><td>5</td><td>6</td></tr> <tr><td>7</td><td>7</td></tr> <tr><td>2</td><td></td></tr> </tbody> </table> <p>FOLDERS SYSTEM</p>	Stat	All	7	7	5	6	7	7	2		<table border="1"> <thead> <tr><th>Stat</th><th>All</th></tr> </thead> <tbody> <tr><td>1:</td><td>0.0000</td></tr> <tr><td>2:</td><td>1.2334</td></tr> <tr><td>3:</td><td>1.2337</td></tr> <tr><td>4:</td><td>1.2333</td></tr> <tr><td>5:</td><td>1.2341</td></tr> </tbody> </table> <p>MEMORY 2000 VAL.</p>	Stat	All	1:	0.0000	2:	1.2334	3:	1.2337	4:	1.2333	5:	1.2341	<table border="1"> <thead> <tr><th>Stat</th><th>All</th></tr> </thead> <tbody> <tr><td colspan="2">Delete or Send?</td></tr> <tr><td>Del</td><td>Send</td></tr> </tbody> </table> <p>MEMORY EXPORT</p>	Stat	All	Delete or Send?		Del	Send	<table border="1"> <thead> <tr><th colspan="2">Statistic</th></tr> </thead> <tbody> <tr><td>MAX:</td><td>+26.999</td></tr> <tr><td>MIN:</td><td>8.8673</td></tr> <tr><td>AVG:</td><td>+5.3213</td></tr> <tr><td>D:</td><td>+26.863</td></tr> </tbody> </table> <p>STATISTIC</p>	Statistic		MAX:	+26.999	MIN:	8.8673	AVG:	+5.3213	D:	+26.863	<p><b>Basic STATISTIC functions:</b></p> <ul style="list-style-type: none"> <li>MAX - maximum saved value</li> <li>MIN - minimum saved value</li> <li>AVG - average value</li> <li>D - difference between MAX &amp; MIN</li> </ul>
Stat	All																																									
7	7																																									
5	6																																									
7	7																																									
2																																										
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MAX:	+26.999																																									
MIN:	8.8673																																									
AVG:	+5.3213																																									
D:	+26.863																																									

STANDARD or FOLDER system can be activated throw MEMORY menu

# 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
MAX	MIN - indicating MIN measured value

## 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	OK
DN	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
- Aluminium and alloys

# FUNCTIONS

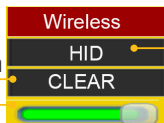


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## WIRELESS data transfer



Reconnection button  
Wireless power regulation



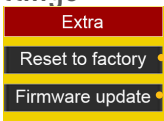
**ON** - WIRELESS data transfer to MDS App for Android, iOS, Windows  
**HID** - WIRELESS HID direct transfer data to any App in Windows, MacOS, Linux, Android devices (like keyboard). Configure data format in USB sub-menu  
**2D-S** - Slave device on WIRELESS connection on HUB mode

## USB OTG data transfer



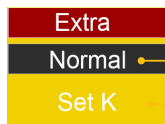
Connect USB cable to PC & Activate USB HID connection mode  
Select setting of data transfer  
Direct transfer data to any App in Windows, MacOS, Linux, Android devices  
Configuring data transfer Dot/Comma and Tab/Arrow Down/CR+LF

## 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)

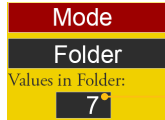
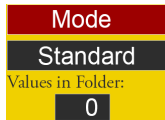
## LINK to app's



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



FOLDERS SYSTEM

## CALIBRATION date info



Push for change calibration date info

## Device INFO

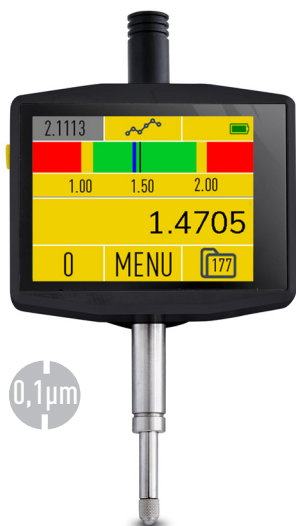


Information about device  
- Firmware version  
- MAC adress for WIRELESS connection

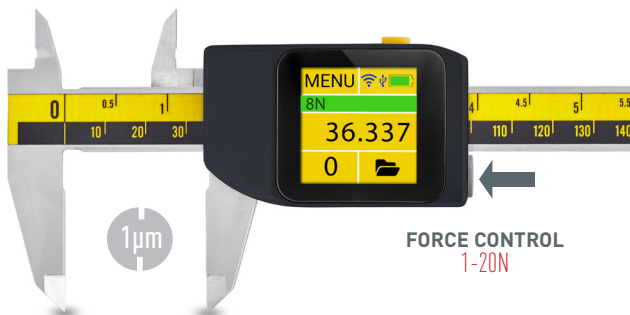


**MICROTECH**

# INDUSTRY 4.0 INSTRUMENTS



0,1µm



FORCE CONTROL  
1-20N



0,1µm



0,1µm



1µm

## MICROTECH

innovative measuring instruments

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tel.: +38 (057) 739-03-50

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[tool@microtech.ua](mailto:tool@microtech.ua)

Change without prior notice