

**IP67**



**SWISS**  
ELECTRONICS



# LONG JAW DIGITAL CALIPER IP67

## USER MANUAL



Calibration ISO 17025:2017

ISO 9001  
BUREAU VERITAS  
Certification



ISO 9001:2015

Item No	Range		Resol.	Jaws	Accuracy	Weight	Protection	mm/inch	Preset	ABS	Display			
	mm	inch										mm	mm	µm
142408445	0-800	0-32"	0,001	400	±25	3,9	IP67	•	•	•	Big screen Swiss electronics IP67 in AL case			
142408444			0,01		±30	3,9		•	•	•				
142411445	0-1000	0-40'	0,001	400	±30	4,3		•	•	•				
142411444			0,01		±40	4,3		•	•	•				
142411464				600	±50	4,7		•	•	•				
142418445	0-1800	0-60"	0,001	400	±40	6,2		•	•	•				
142418444					±50	6,2		•	•	•				
142418464				600	±60	6,6		•	•	•				
142120144	0-2000	0-80"	0,01	400	±60	17,5		Al case	•	•		•		
142120164				600	±85	18,0		•	•	•				
142120104				1000	±120	19,0		•	•	•				
142125144	0-2500	0-100"	0,01	400	±90	20,0		IP67	•	•		•	Big screen Swiss electronics IP67 in AL case	
142125164				600	±105	20,5			•	•		•		
142125104				1000	±140	21,5			•	•		•		
142130144	0-3000	0-120"	0,01	400	±100	24,0			Al case	•		•		•
142130164				600	±110	24,5			•	•		•		
142130104				1000	±160	25,5	•		•	•				
142135144	0-3500	0-140"	0,01	400	±120	26,5	IP67		•	•	•	Big screen Swiss electronics IP67 in AL case		
142135164				600	±160	27,0			•	•	•			
142135104				1000	±240	28,0			•	•	•			

# SPECIFICATION

## WIRELESS EXTRA LONG JAW CALIPER IP67



Item No	Range		Resol.	Jaws	Accuracy	Weight	Protection	mm/inch	Preset	ABS	WIRELESS	Display
	mm	inch	mm	mm	µm	kg						
142408447	0-800	0-32"	0,001	400	±25	3,9	IP67  Al case	•	•	•	•	Big screen Swiss electronics IP67 in AL case
142408446			0,01		±30	3,9		•	•	•	•	
142411447	0-1000	0-40'	0,001	400	±30	4,3		•	•	•	•	
142411446			0,01		±40	4,3		•	•	•	•	
142411466				600	±50	4,7		•	•	•	•	
142418447			0-1800	0-60"	0,001	400		±40	6,2	•	•	
142418446	±50	6,2						•	•	•	•	
142418466	600	±60				6,6		•	•	•	•	
142120146	0-2000	0-80"	0,01	400	±60	17,5		•	•	•	•	
142120166				600	±85	18,0		•	•	•	•	
142120106				1000	±120	19,0		•	•	•	•	
142125146				400	±90	20,0		•	•	•	•	
142125166	0-2500	0-100"	0,01	600	±105	20,5		•	•	•	•	
142125106				1000	±140	21,5		•	•	•	•	
142130146				400	±100	24,0		•	•	•	•	
142130166	0-3000	0-120"	0,01	600	±110	24,5		•	•	•	•	
142130106				1000	±160	25,5		•	•	•	•	
142135146	0-3500	0-140"	0,01	400	±120	26,5		•	•	•	•	
142135166				600	±160	27,0		•	•	•	•	
142135106				1000	±240	28,0		•	•	•	•	




  
**ONLY WIRELESS MODIFICATION**

DATA 2s

WIRELESS to MDS  
↓ DATA 5s

WIRELESS HID  
↓ DATA 5s

WIRELESS HID+MAC DATA 5s

**SET** - Functions setting: *PRESET, LIMITS, UNITS, MIN/MAX*

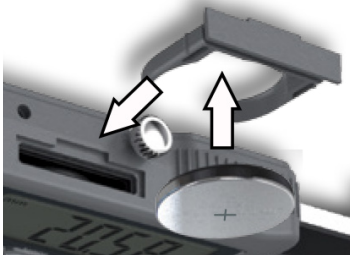
**MODE** - Favorite key to one of the most used function

**0** - Setting 0, PRESET value

**ONLY WIRELESS MODIFICATION**

**DATA** - Switch on WIRELESS module / data transfer

## BATTERY REPLACEMENT



# CR2032 BATTERY (3V)

## POWER CONSUMPTION

MODE		
WIRELESS OFF		45 $\mu$ A
WIRELESS TO MDS	STANDARD	2.0 mA
	ECO (GATT)	45-100 $\mu$ A
WIRELESS HID		0.4 mA
WIRELESS HID+MAC		0.4 mA

# OPERATION INSTRUCTIONS



Wipe with a clean cloth, soaked in gasoline, measuring surface of the frame and gauge calipers to remove anti-corrosion oil. Then wipe them with a clean dry cloth.

If necessary, open the battery cover; insert the battery (type CR2032) according to the polarity of the electrodes.

This caliper has Autoswitch on/ off function:

- move electronic module for switch on caliper
- after 10 minutes without any moving caliper will switch off

During the measurement, measuring jaws should to sum to the measured object without knocking.

During the measurement avoid warps of measuring surfaces of the instrument.

Measuring surface must be fully in contact with the measurement object

## FORCE CONTROL **ONLY FORCE MODIFICATION**



### FORCE CONTROL MODULE

- Check the ZERO SETTING of the caliper. Sum the measuring jaws to contact with each other. Force is generated with a measuring force. Push Force module to create the recommended force (10-15N) by the block adjustment and press ZERO button.
- During the measurement, measuring jaws should to sum to the measured object without knocking.
- During the measurement avoid warps of measuring surfaces of the instrument. Measuring surface must be fully in contact with the measurement object.
- Optimal measuring force for this size caliper 10-15N (depend on jaw length). During a measuring process use Force module to improve repeatability.



## WARNING!

**IN THE PROCESS OF WORKING WITH CALIPERS SHOULD BE AVOIDED:**

**Scratches on the measuring surfaces;**




**Measuring the size of object in the process of machining;**

**Shocks or dropping, avoid bending of rod or other surfaces.**

# WIRELESS DATA TRANSFER MODES

## ONLY WIRELESS MODIFICATION

MICROTECH caliper with Built-in Wireless data output module for transfer results

MODE		TRANSFER DATA	Switch ON	Switch OFF	Select MODE	DATA send	
WIRELESS TO MDS	STANDARD	MICROTECH MDS app Windows, Android, iOS, MacOS	DATA 2s.	auto switch off when disconnect	STANDARD or ECO in MDS app	indic.  blinking	DATA push, or on MDS app
	ECO (GATT)		all time active			no 	DATA push
WIRELESS HID	Direct to any customer app (like keyboard)		DATA 2s	auto switch off when disconnect or no data 10 min	DATA 5s. and connect BT on PC or Tablet	 blinking	
WIRELESS HID+MAC							

## DOWNLOAD APP

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



# WIRELESS DATA TRANSFER CONNECTION

## ONLY WIRELESS MODIFICATION



### WIRELESS TO MDS APP CONNECTION

To switch between WIRELESS modes (WIRELESS, HID, and HID + MAC), press and hold the data transmission button for 5 Seconds. **5 sec**;

In **WIRELESS TO MDS** non-stop blinking on display up to connection to MDS app and selecting **STANDARD** or **ECO** sub-mode.

In **STANDARD** submode data transfer 4 times/sec and all time on display.

Push **DATA** button to save data to MDS app or use buttons and Timer inside app.

In **ECO (GATT)** submode caliper ready to transfer data any time with no indication.

Push **DATA** button to save data on MDS app.

For selecting next mode push **DATA** button **5 sec**.

***ECO recommended for battery economy !!!***

### WIRELESS HID CONNECTION

To switch between wireless modes (WIRELESS, HID, and HID + MAC), press and hold the data transmission button for 5 Seconds.

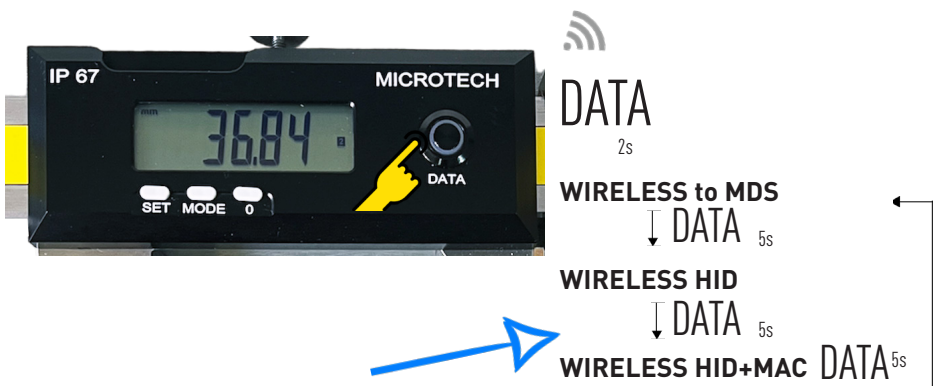
By default, digital wireless devices start in **WIRELESS mode**, which is indicated by a constantly blinking wireless icon on the display. When you hold the button for 5 Seconds for the first time, WIRELESS mode is activated.

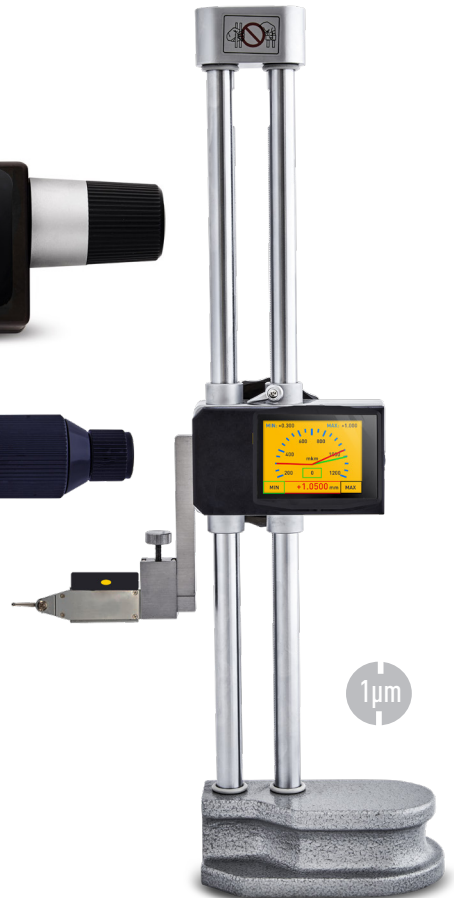
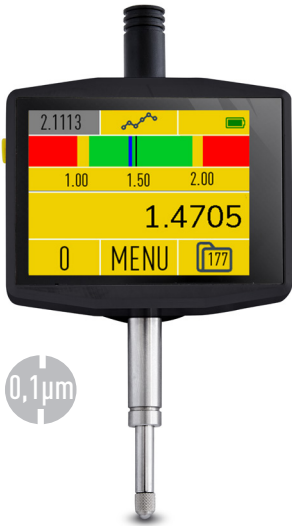
Press and hold the button again for 5 Seconds to switch to HID mode. After a third press and hold for 5 Seconds, the device will enter HID + MAC mode.

You can easily identify the current mode by searching for Bluetooth devices, where the device name will indicate the mode, either MICROTECH HID or MICROTECH HID + MAC.

#### **NOTICE:**

Always remember to disconnect and remove the device from your Bluetooth settings before changing modes to avoid conflicts and ensure a smooth transition.





## MICROTECH

innovative measuring instruments

61001, Kharkiv, Ukraine, str. Rustaveli, 39

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

[www.microtech.ua](http://www.microtech.ua)

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

Change without prior notice