

twilight

INSTRUMENTOS DE MEDICIÓN INDUSTRIAL

**Micrómetro
electrónico 0-1
FW-548150012**

www.twilight.mx



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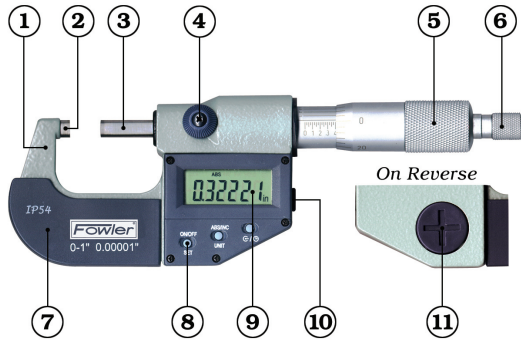
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Electronic IP54 Micrometer

Series 54-815

1. Functional Elements



2. LCD Display



- In: Inch measuring mode*
- INC: Relative measuring mode
- ABS: Absolute measuring mode
- Set: Origin set
- ☒: Low battery
- ⏻: Data output is active
- ::: Clock mode

Two left figures: hours

Two right figures: minutes

- 1. Frame
- 2. Anvil
- 3. Spindle
- 4. Locking device
- 5. Thimble
- 6. Ratchet
- 7. Frame insulator
- 8. Function buttons
- 9. LCD display
- 10. SPC output
- 11. Battery cover

3. Operation

- Keys are pressed two ways to execute functions:

1. Press and immediately release.
2. Press and hold for at least two seconds.

3.1 ON/OFF—SET Key

- Press and release: Power on/off.
- Press and hold: Zero set for absolute measuring ("Set" will appear.)

3.2 ABS/INC—Unit Key

- Press and release: Absolute and relative measuring mode conversion.
- Press and hold: Inch/Metric conversion ("in" will appear for inch readings, otherwise the display reads in metric.)

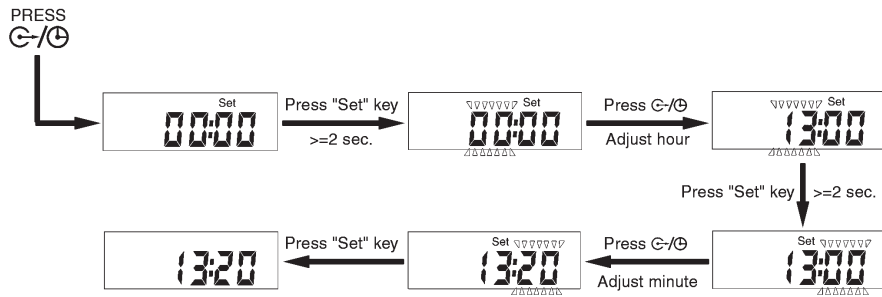
3.3 ⏻/⏹: Data output and clock switch key

In measuring mode, this is the data output key.

- Press and release: The micrometer will output the displayed data.
- Press and hold: The micrometer will output the displayed data continually until the button is pressed again.

Setting the Clock

- After powering off the micrometer press the ⏻/⏹ key again: The micrometer will enter clock mode and display the current time.



- Press the ⏻/⏹ key again to switch off the clock. The micrometer will enter measuring mode by pressing the "ON/OFF—SET" key.

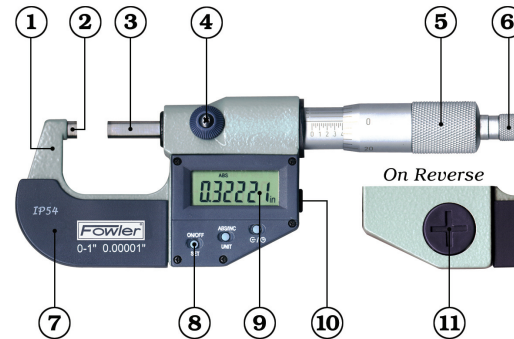
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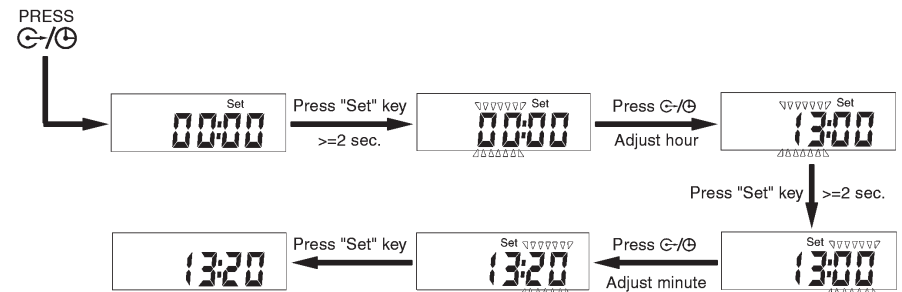
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4. Power

- If the micrometer is not used for five minutes the power will automatically shut off. The micrometer will awaken by pressing the “ON/OFF—SET” key or by turning the spindle. Powering off the micrometer by pressing the “ON/OFF—SET” key to save the battery when not in use is recommended.
- Use a SR44 battery, and replace the battery when the display begins to blur or the “” is displayed on the LCD.
- Remove the battery cap by turning it counterclockwise with a coin.
- Insert a new battery with positive (+) side up. Replace the battery cap by turning it clockwise with a coin.

5. Data Output

- The output interface is a RS232C.
- The micrometer can be attached to a PC’s serial port by an SPC cable (contact Fowler) or to a PC’s USB port by an SPC cable and a USB to serial port cable (contact Fowler.)
- To attach the cable, remove the data output cap and insert the cable.
- When not using the interface, always keep the data output cap in place.

5.1 Serial Port Information

- Baud rate: 1200 Kb/second
- Parity: none
- Stop bits: 2
- Data bits: 7

6. General Specifications

- Measuring force: 5-10N
- Power Consumption: <=25µA
- Operating temperature: 0-40°C
- Storage temperature: -20-60°C


7. Precautions

- Do not subject the instrument to blows or shock. Do not drop it or apply excessive force.
- Do not disassemble the instrument.
- Do not press the keys with a pointed object.
- Do not use or store the instrument under direct sunlight.
- Avoid exposing the instrument to temperature extremes.
- Keep the instrument away from strong magnetic fields and high voltage.
- Use a soft material to clean the instrument. Never use organic solvents such as acetone or benzene to clean.
- Clean measuring faces before use
- If the instrument is to be stored or left unused for extended periods, remove the battery.

8. Troubleshooting

Problem(s)	Cause(s)	Solution(s)
LCD displays “E1”	Data overflow	Reverse spindle or, press “ON/OFF—SET” key
LCD displays “E3”	1. Sensor overflow 2. Sensor malfunction	1. Reseat battery 2. Return micrometer for repair
Measuring data incorrect	1. Dirty measuring faces 2. Preset data is incorrect	1. Clean measuring faces 2. Inspect and reset preset data
No display on LCD	1. Battery position is incorrect 2. Battery is dead	1. Reseat battery 2. Replace with new battery
1. Flickering display 2. Display is sporadic 3. Display remains dead	1. Weak battery 2. Weak battery 3. Battery position is incorrect	1. Replace battery 2. Replace battery 3. Reseat battery
1. Display is blurry 2. Output data is incorrect	Weak battery	Replace with new battery

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No display on LCD	1. Battery position is incorrect 2. Battery is dead	1. Reseat battery 2. Replace with new battery
1. Flickering display 2. Display is sporadic 3. Display remains dead	1. Weak battery 2. Weak battery 3. Battery position is incorrect	1. Replace battery 2. Replace battery 3. Reseat battery
1. Display is blurry 2. Output data is incorrect	Weak battery	Replace with new battery

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