OPERATION INSTRUCTION
Digital Internal Caliper Gages

Accuracy:±0.03mm

1-Measuring tips
2-Measuring arms
3-Operating lever
4-'ON/OFF...Set' button

5-'TOL' button
6-' ⟳ ' button
7-'ABS...mm/in' button

1. Internal caliper gages are used for quick measurement of internal sizes.
2. Buttons:
   Short press: less than 2 seconds; long press: more than 2 seconds.
   'ON/OFF...Set'
   ---short press: power on/off.
   ---long press: to set the initial reading after power on. 'Set' appears and the first displayed digit blinks. Short press ' ⟳ ' button to change the digit. Short press 'ABS...mm/in' button to change to next digit. Press 'ON/OFF...Set' button to save after setting.
   'TOL'
   ---long press to set tolearance. ' ▶ ' appears on the display and the first digit of displayed value blinks. Short press ' ⟳ ' button to change current digit, short press 'ABS...mm/in' button to change to next digit. Press 'TOL' button to save the upper tolerance after setting. ' ◀ ' will appear on the display at the same time and the first digit of displayed value blinks to set lower tolerance. The same operation of setting upper tolerance. Short press 'TOL' button after setting, the gage will enter into tolerance measurement mode.
   ---Under tolerance measurement mode,when the measurement is beyond upper tolerance,' ▌ ' will blink on the top right of the display. When the measurement is beyond lower tolerance, ' ▌ ' will blink on the top left of the display.
   Upper tolerance must be more than lower tolerance.

⟳ ---short press: output the data to PC once, ' ⟳ ' blinks once.
---long press: output the data to PC continuously, and ' ⟳ ' keep displaying. Press the button again to stop outputting.
'ABS...mm/in'
---short press: for absolute and relative measuring mode conversion. The normal mode is absolute measuring mode, 'ABS' is on display. Short press the button to enter relative measuring mode at any point (this point is called 'relative zero point'), the reading is 0. Press the button again to go back to absolute measuring mode.
---long press: metric/inch conversion.
M (press 'TOL' and ' ⟳ ' simultaneously)
---short press, 'Min' appears,enter into minimum value tracking mode.Short press 'TOL' button again, 'Max' appears,enter into maxmum value tracking mode. Press 'TOL' button for the third time, 'H' appears, to track current value. Press 'TOL' button again to exit.

3. The caliper gage should be calibrated before use, by ring gage or micrometer. Use the caliper gage to measure calibration tool (fig.1), set initial value to the standard value of calibration tool.

Fig.1

4. How to use: press the operating lever to make distance between two measuring tips smaller than the bore to be measured. Input the caliper gage into the bore, release operating lever to make two measuring tips well contacted with the bore, slightly swing the gage along axial and radial of the bore, to find the axial minimum (fig.2) and radial maximum (fig.3), get the result from the caliper gage. When measuring the width, please find the minimum value and get the result.
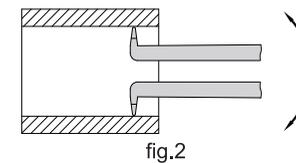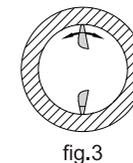

fig.2

fig.3

5. If there is nothing on the display or digits blurring, battery voltage is too low, please replace battery. If digits do not change when buttons are pressed, please take out battery and put it back after 1 minute. Remove battery if the caliper gage is not used for a long period of time,otherwise, liquid may leak from the battery and damage the gage.
6. During use, avoid excessive operation so as not to damage the measuring tips. After use please oil measuring tips to prevent rust.

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