

This product has the same reliability and grade of protection as a Vernier Caliper. It can be exposed to coolant, water, dust, oil or even in the water for a short period of time in the workshop environment. Absolute measuring system prevents the measuring origin from being repeatedly reset during fast movement, interference or battery change. Please read this instruction carefully and keep it for further inquiries.

1. Product features

New patented electromagnetic absolute measuring system. The measuring origin doesn't need resetting in use or battery change. It enables direct measurement as a Vernier Caliper with higher reliability.

Waterproof, anti-oil, anti-electromagnetic interference, grade of protection IP67 (CEI60529).

One-button design and prompt menu guarantees easy and simple operation

Manual/automatic power switch; hibernation in 3 minutes and automatic shutdown in 8 minutes with no operation (press any key to restart after shutdown)

Infinite response speed and no speeding deviation

ABS/INC mode and mm/IN mode

Low voltage alert

2. Technical parameters

Measuring range: 0~150mm/6IN

resolution: 0.01mm/0.0005IN

Repeatability: 0.01mm/0.0005IN

Operation temperature: 10° C~40° C

Storage temperature: -10° C~60° C

Relative humidity: 100%

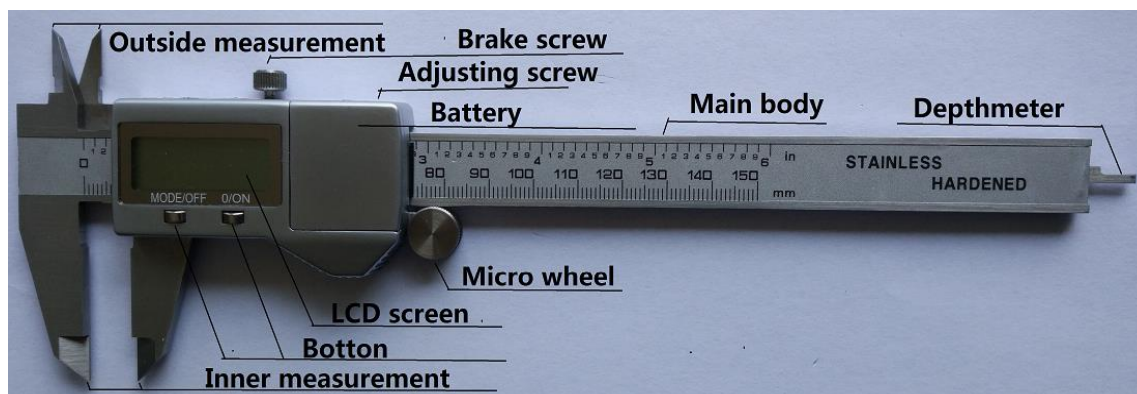
Grade of protection: IP67 (CEI60529)

Battery: 3V Lithium battery (CR2032)

Battery lifetime: 1500 - 2000h

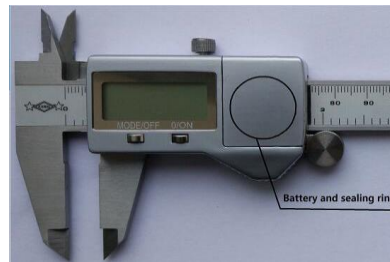
Low voltage alert: 2.4V

3. Schematic diagram and main components

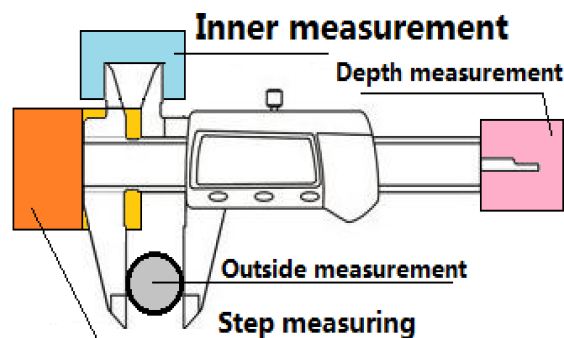


4. Tutorial

- Battery installation: 1) The battery cover will automatically pop off after unscrewing (diagram 2) Slightly expand the sealing ring and replace the battery with "+" up. 3) Press back the battery cover and align the screw with the hole. (Notes: ① Keep the small sealing ring from dropping when removing the battery cover; make sure that the sealing ring was put in the right place and clean the sealing ring for hermeticity; replace the sealing ring when there's severe deformation or damage. ② Replace the battery in a relatively dry environment as quick as possible in case water vapor affects the electronic components.)



- ABS/INC switch: The absolute origin of the instrument shows when external jaws meet in ABS mode. LCD displays "0.00" and "ABS". If a relative measurement at any position is needed, press the left button until LCD displays "INC". Then unleash the left button and LCD displays "0.00". On the contrary, press the left button until LCD displays "ABS" for the ABS mode switch.
 - Mm/IN switch: press the left button until LCD displays "mm (/inch)" and then unleash the button.
 - Manual shutdown: press the button until LCD displays "OFF" and unleash the button.
- Notes: keep the button pressed and LCD will cyclically display "mm (/inch)"-"ABS (INC)"-"OFF"-"mm (/inch)"-, unleash the button at any needed point to switch.
- Absolute origin correction(ABS): The absolute origin need correcting when external jaws meet and no "0.00" displays. Press the right button, LCD will display firstly "SET 0" and "SET 1" in 4 seconds. Then unleash the button and LCD reveals "0.00". The origin is now corrected. (Check if LCD displays "0.00" every time when the external jaws meet. If not, repeat these steps until it does.)
 - Measuring: this instrument can be used to measure internal and external dimensions or depth. The measuring and scale reading are just the same like normal calipers.
 - Clear: 0/ON switch. A short press leads to clearing in INC mode and LCD displays "SEL 0"; a long press leads to clearing in ABS mode and LCD displays "SEL 1".



5. Attentions

- ① Avoid deformation caused by collision or falling which results in larger deviation.
- ② Keep the surfaces clean.
- ③ Keep it away in the product package and do anti-rust treatment if it's out of use for a long time.
- ④ Keep the electronic components off corrosive chemical reagents.
- ⑤ Replace the sealing ring when it's deformed or damaged during battery change.
- ⑥ This instrument shouldn't be left in water or other liquids for more than 10 minutes long or 1 meter deep.
- ⑦ Battery should be replaced when low voltage alert reveals.
- ⑧ This instrument can possibly not work as usual when ambient temperature is too high or too low or battery is low. It needs repairing if temperature and battery are normal.
- ⑨ Since this is an absolute measuring system, don't remove any components in case it doesn't work.

6. Troubleshooting

Nr.	faults	reasons	Handling methods
1	Bad hermeticity	1. battery cover isn't in the right place	Adjust battery cover to the right place
		2. sealing ring	Adjust the shape of the sealing ring
		3. sealing ring damaged	Replace the sealing ring
		4. others	Send it to the manufacturer or designated service provider
2	LCD display defects	1. water inlet	Dry the components (see Nr. 1)
		2. cover deformation	Send it to the manufacturer or designated service provider
3	LCD unsuccessful display	1. battery is low	Change battery
		2. others	Send it to the manufacturer or designated service provider
4	LCD low voltage alert	Battery is low	Change battery
5	display flashing	Imperfect contacts of battery	Reshape the battery contacts

Function list

Absolute measuring mode

Relative measuring mode

Measurement units: mm/in

Zero reset at any point in relative mode

Tutorial:

1. ABS mode and mm are set as default.
2. Switch from ABS to INC: when LCD displays ABS, press the left button for at least 1.2 second and LCD will display INC
3. Switch from INC to ABS: when LCD displays INC, press the left button for at least 1.2 second



and LCD will display ABS

4. The measurement unit can be changed in ABS mode with a short press (less than 1 second) of the left button.
5. Origin reset in INC mode. Move the measurement part to any position and shortly press the right button (less than 1 second). Unleash until LCD displays "SET 0".
6. Origin reset in ABS mode. Move the measurement part to any position and press the right button for longer than 5 seconds. Unleash until LCD displays "SET 1".

Scale 0-150mm/0-6"

Resolution 0.01mm/0.0005"

Tolerance zone 0.02mm/0.001 "

