MODEL: GT231

COATING THICKNESS GAUGE
INSTRUCTION MANUAL

Standard：Q/GMY 004-2019

Version：GT231-EN-00

A.Introduction

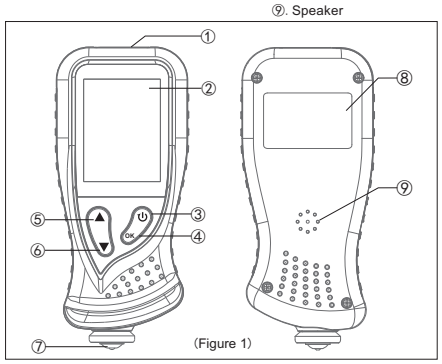
This product is a color-screen portable coating thickness gauge with high-definition display, which can quickly, non-destructively and accurately me-asure non-magnetic coating thickness on magnetic metal substrates and non-metallic coating thickness measurement on non-magnetic metal sub-strates. At the same time it can automatically identify magnetic metal substrate and non-magnetic metal substrate, and is widely used in manufacturing, metal processing industry, chemical industry, commodity inspection and other testing areas.

B.Functions

- Menu operation and color-screen HD display.
- Thickness measurement of non-magnetic coating on magnetic metal substrate surface and non-metallic coating on non-magnetic metal substrate .
- Two measurement methods: single measurement, continuous measurement.
- Basic calibration and Zero-point calibration available.
- Metric/imperial unit and storage function.
- Screen rotation, charge protection, multi-interface displays, screen brightness selection.
- Voice broadcast.
- Automatic shutdown.

C.Name of Parts（Such as Figure 1）

①. USB charging interface
②.LCD display
③.Back button and power on/off button
④.Confirm button
⑤. Up button
⑥.Down button
⑦.Test probe
⑧.Nameplate on instrument's back
⑨. Speaker



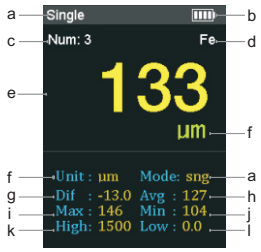
(Figure 1)

D.Operation manual

1.Measurement instruction: After startup, lightly press test probe on the substrate to be tested under measurement interface, and the measured value is coating thickness of substrate.

2. Measurement interface（Such as Figure 2）:

a. Mode: single (sng) / continuous (ctn)
b. Battery power indicator
c. Measurement counting
d. Substrate: Fe/nFe
e. Display zone of measured value
f. Unit : μm/mil
g. Difference value of measurement
h. Average value
I. Maximum value
j. Minimum value
k. High limit　　l. Low limit



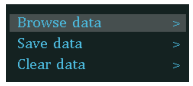
Measurement interface
(Figure 2)

3. Enter menu interface:

▶Under measurement interface, short press " ⏻ " button to enter menu interface, which displays button prompt afterwards（Figure 3）:

▶Press "OK" button under measurement interface for quick entry of measured data menu（Figure 4）:

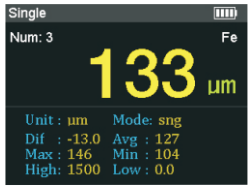
Enter menu interface
(Figure 3)



Enter menu interface
(Figure 4)

4. Screen rotation（Such as Figure 5 ~ Figure 6）:

▶ Long press " ▲ " button under measurement interface to rotate screen.

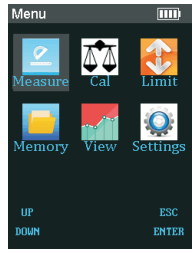


Horizontal screen display
(Figure 5)

Vertical screen display
(Figure 6)

5. Functions in Menu（Such as Figure 7）:

▶Measurement selection: Enter measurement sub-items to operate.



Functions in Menu（Figure 7）

1. Calibration Operation

（1）.Basic calibration:

a. Prepare the calibration plate and calibration base, enter calibration menu and select basic calibration.
b. According to the instrument instruction, place the corresponding calibration plate for calibration.
c. After calibration is completed, "calibration complete" will show up at the bottom of the screen and the instrument will return to the previous interface.
d. After the calibration is complete, you can go back to measurement interface and perform measurement.
e.Magnetic and non-magnetic metal base calibration do not affect each other

Note: When performing basic calibration, press the instrument onto substrate when the arrow is down, and remove it when the arrow is up.

（2）.Zero Calibration:

a. Enter calibration menu and select zero calibration.
b. Lightly press the instrument onto substrate.
c. The instrument will automatically calibrate to zero point.
d. The instrument displays the previous interface after calibration is done.
e. After calibration is complete, you can go back to measurement interface and perform measurements.

7. Limit value:

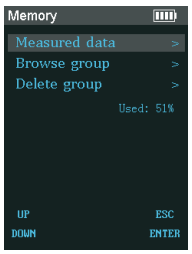
▶If limit value switch is on, when the measured value is above high limit or below low limit, the value will turn red and the corresponding icon will appear（Such as Figure 8）.
▶If limit value switch is off, value of normal measurement will be displayed（Such as Figure 9）.

8. Storage（Such as Figure 10）:

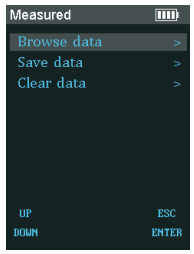
▶Measured data: users can view, save and delete measured data.
▶View: view saved data（Such as Figure 11）.
▶Delete: under delete interface, delete saved data by short pressing OK button to delete single datum, or long pressing OK button to select all data and delete.

Above high limit
(Figure 8)

Normal measurement display
(Figure 9)



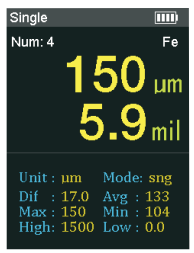
Storage（Figure 10）



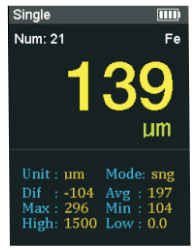
Measured data（Figure 11）

9. View:

▶Turn on um&mil switch and measured results of two units are simultaneously displayed under measurement interface（Such as Figure 12）.
▶Turn on other switches and press UP/DOWN button under measurement interface to view the corresponding interface（Such as Figure 13~15）.



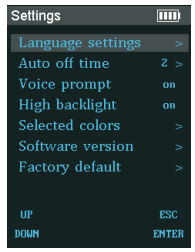
Interface with μm & mil on（Figure 12）



Measurement statistics
(Figure 13)

Past values of measurement
(Figure 14)

Measurement trend chart
(Figure 15)



Settings
(Figure 16)

10. Settings:

▶Enter setting menu to perform corresponding operations.（Such as Figure 16）.

E.Technical Parameters

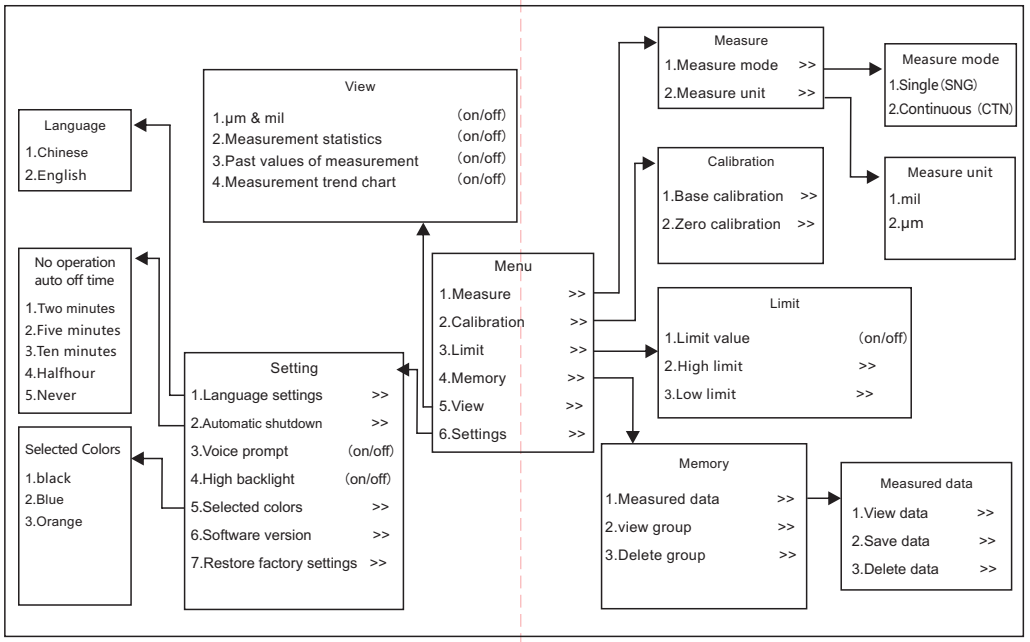
Measurement range	0 ~ 1800μm/70.8mil
Resolution	(0.1μm(<100μm),1μm(≥100μm))/0.1mil
Measurement error	≤150μm　±5μm
	>150μm　±(3%H+1μm)

Minimum diameter of magnetic metal substrate	12mm
Minimum thickness of magnetic metal substrate	0.5mm
Minimum radius of curvature for magnetic convex substrate	2mm
Minimum radius of curvature for magnetic concave substrate	11mm
Minimum diameter of non-magnetic metal substrate	50mm
Minimum thickness of non-magnetic metal substrate	0.5mm

Working voltage	DC 3.7V（Lithium battery capacity 1000mAh）
Number of data storage	Max. 1500 pens
Size	52.9*26*117mm
Weight	102. 4g (including battery)

Reminder: This instrument is equipped with rechargeable battery. If you can't turn on the product, please use it after charging (power adapter specification: DC 5V/1A, namely ordinary mobile phone charger). This instrument is not shipped with power adapter.

F.Menu Chart（Such as Figure17）



Menu Chart (Figure17)

G.Attention

1.Keep the probe away from the measured substrate when starting up.
2."-OL-"indicates that the value exceeds measurement range.
3.Do not press the sensor with your finger or other object into the instrument, because this operation may damage the sensor parts and the instrument.（ Figure 18）

(Figure18)

⚠ Specific Declarations:
Our company shall hold no any responisibility resulting from using output from this product as an direct or indirect evidence.
We reserves the right to modify product design and specification without notice.