



Patent No.: ZL 201830085651.4

V2.0

DIGITAL DISPLAY INCLINOMETER

**DMI610**

**Technical Manual**



### PRODUCTION IMPLEMENTATION STANDARD REFERENCE

- Enterprise quality system standard: ISO9001: 2015 standard (certification No.: 128101)
- The intellectual property management system complies with the standard: GB / T 29490-2013 (Certificate No. : 18117IP1529R0S)
- CE certification (Certificate No.: ATSAHE180315016)
- High-tech enterprise (Certificate No. : GR201844204379)
- China National Intellectual Property Appearance Patent (Patent No.: ZL 201830085651.4)
- Tilt sensor production standards: GB / T 191 SJ 20873-2003 inclinometer general specification of Level
- The Academy of metrology and quality inspection Calibrated in accordance to: JJF1119-2004 Electronic Level calibration Specification
- Software development reference standard: GJB 2786A-2009
- Product environmental testing standards: GJB150
- Electromagnetic anti-interference test standards: GB / T 17626
- Revision time:2019-9-2

Note: Product functions, parameters, appearance, etc. will be adjusted as the technology upgrades.  
Please contact our pre-sales business to confirm when purchasing.



**DMI SERIES**  
DIGITAL DISPLAY INCLINOMETER



► **GENERAL DESCRIPTION**

DMI610 is a digital display inclinometer for various industry angle controlling and measuring. The core of this product use micro mechanical control principle, using RION patent interleaved temperature compensation model algorithm, play micro electronic mechanical principle of absolute operation advantage, to ensure the long-term stability and repeatability of measuring instrument. DMI610 single axis maximum range of up to + 90 ° , resolution 0.002 ° , the best accuracy <math><0.02^\circ</math> (in full measuring range), fast response speed, stable data , specially designed side and bottom the strong magnetic adsorption type installation, three datum can be measured using normally, bring great convenience to customers, DMI610 has the function of data storage, 3 measurement modes (Degrees, minutes, seconds, angle, mm/m) optional, strong expansibility, convenient application, industrial reliability, and has the absolute competitive price advantage in the international market have absolute competitive advantage!

► **FEATURES**

- ★ Best accuracy: <math><0.02^\circ</math>
- ★ Maximum measure range:  $\pm 90^\circ$
- ★ Absolute/Relative measurement can switch
- ★ Three surface datum strong magnetic installation
- ★ Auto-angle interleaved compensation function
- ★ User can calibrate ZERO by himself
- ★ Three kinds of measurement mode selectable (radian, angle, mm/m)
- ★ Repeatability:  $0.02^\circ$
- ★ Data store function
- ★ Both sides and bottom can measure
- ★ Working Temperature :  $-10^\circ \sim +70^\circ\text{C}$
- ★ Auto temperature drift compensation
- ★ Night vision fours colors screen
- ★ Angle resolution :  $0.001^\circ$

► **APPLICATION**

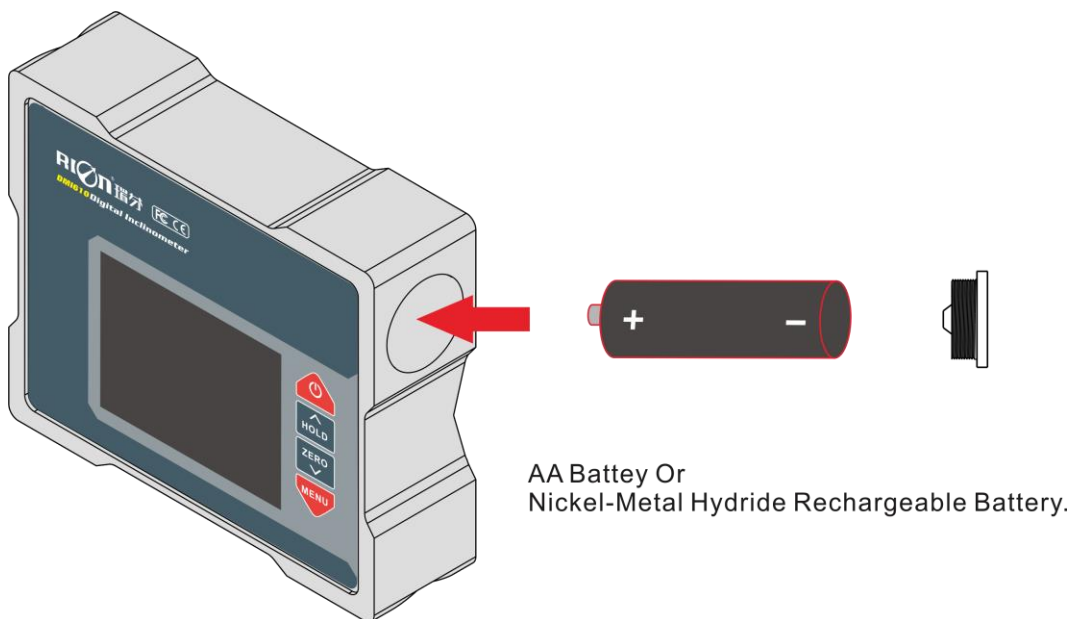
- ★ Building construction
- ★ Machinery installation
- ★ Turntable testing
- ★ Medical instruments
- ★ Automobile four-wheel testing
- ★ Piping installation
- ★ Pan unit angle detection
- ★ Road slope
- ★ Industrial platform
- ★ Production jig



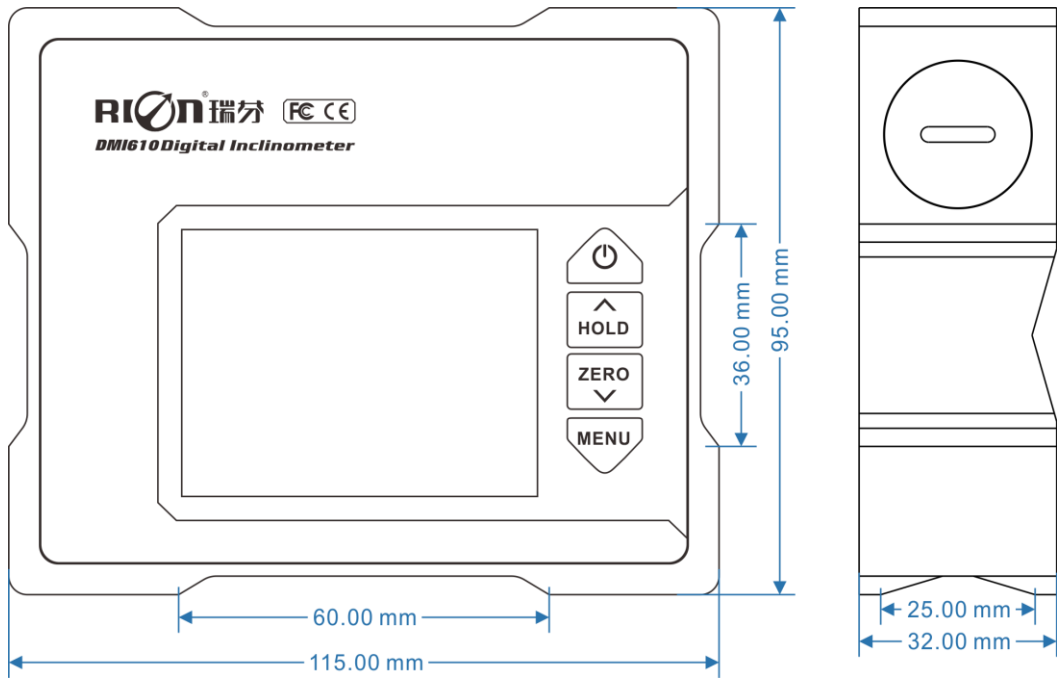
► **TECHNICAL DATA**

DMI610	PARAMETERS	
Angle measure range	±90°	±30°
Measure axis	Single axis	Dual axis
Best accuracy	<0.02°(RMS)(Full range)	<0.005°(RMS)(Full range)
Angle measure resolution	0.001°	0.001°
Repeatability	0.004°	0.004°
Measurement mode	radian, angle, mm/m three modes can be set	
LCD	64 true colors night vision display screen	
LCD visible area size	L60.5*W45mm	
Working temperature	-10°C~+70°C	
Working humidity	85%RH	
Power supply	1.5V	
Ideal working time	6Hours	
Shock resistance	10g@11ms、3 Axial Direction (Half Sinusoid)	
Shock impact	10grms、10~100Hz	
Weight	600g	
Waterproof grade	IP65	
Material	Anodic oxidation of aluminum alloy	
Size	L115*W95*H32mm	

► **BATTERY INSTALLATION DIAGRAM**

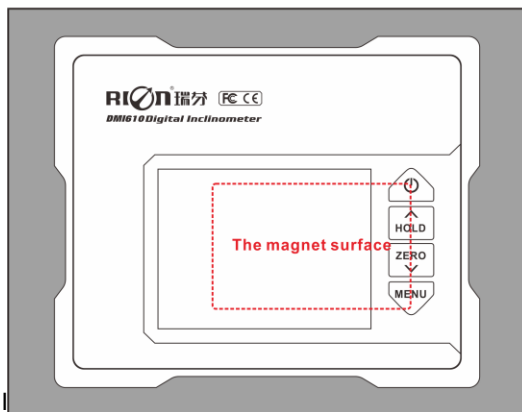
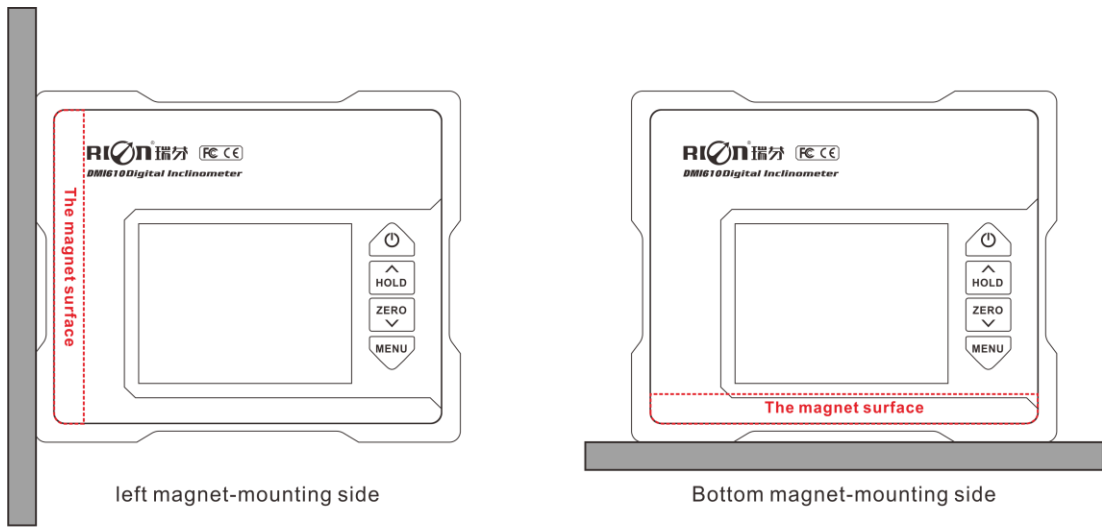


► **PRODUCT DIMENSION DIAGRAM**



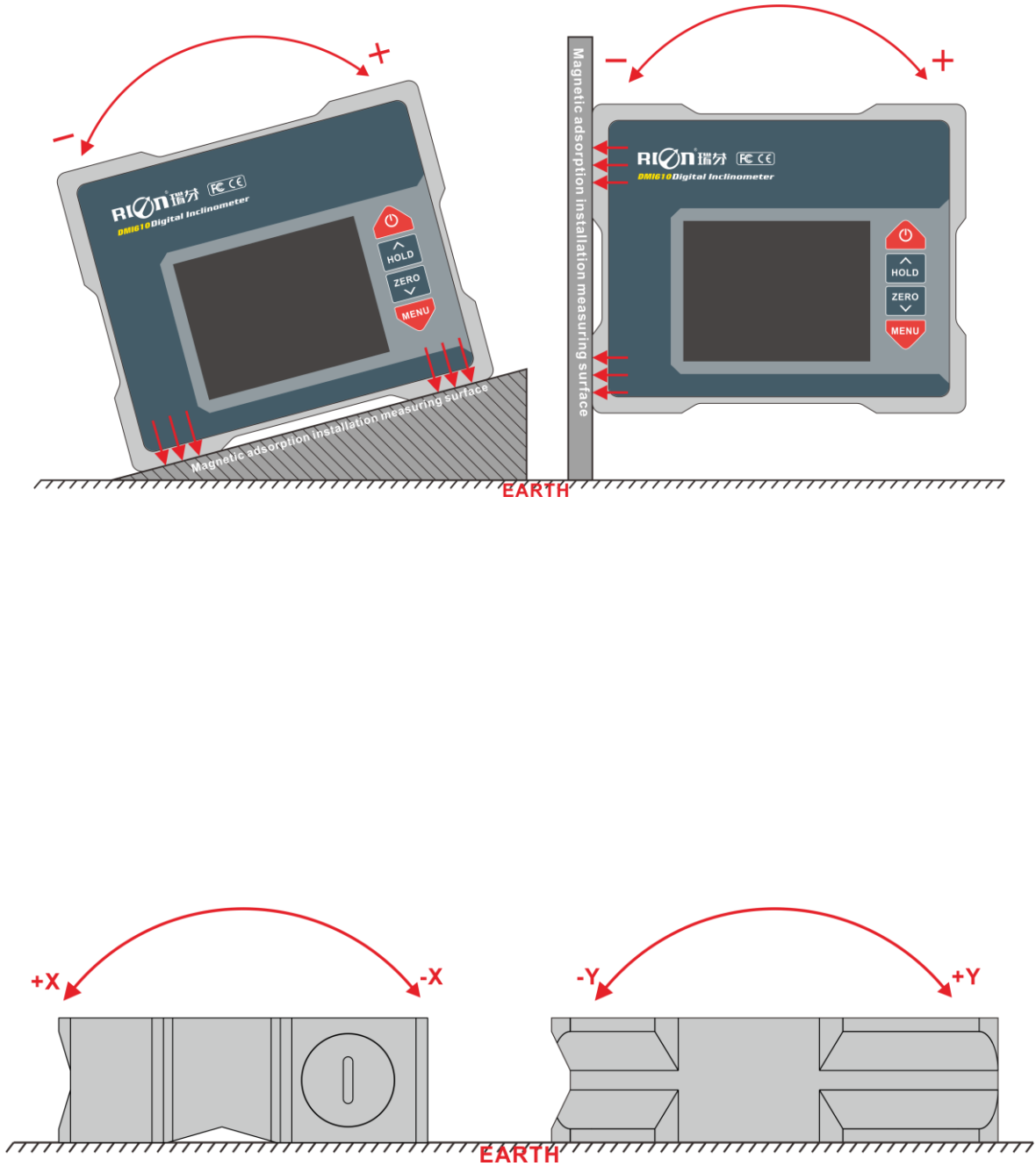
SIZE:L115\*W95\*H32mm

► **MAGNETIC MEASURING SURFACE**



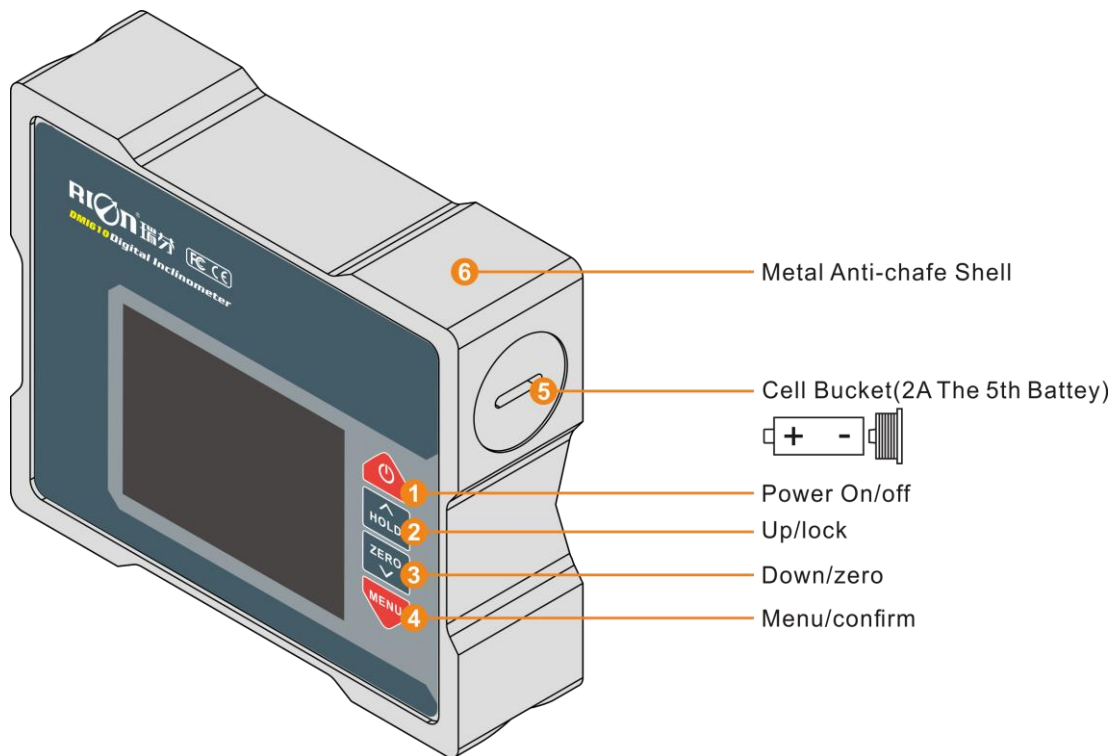
Three - sided strong magnetic reference installation.

► INSTALLATION MEASUREMENT CHART



► **PRODUCT FUNCTIONS**

\* **Function menu operation instructions**



**1. ON/OFF**

Long press about 3 seconds, hear "honk"..." Release, start / close

**2. HOLD Lock, unlock or move up**

When the main interface has no menu display, press "HOLD" button is locked, and repress "HOLD" is unlock. The upper right corner of the display unit has icon display, when the main interface has menus or other interfaces, it can move up.

**3. ZERO Set and cancel zero / downward movement**

In the absence of menu on the main interface, press the "ZERO" button to set, cancel the zero, show "ABS" for the absolute zero, and show "REL" when the relative zero point is displayed". When the main interface has a menu, press the ZERO key for the downward function.

**4. MENU Menu or confirm**

When the main interface has no menu display, when the "MENU" is pressed, the menu is displayed.

When the main interface has menu display and other interface, the MENU key is "definite" function.

In the main interface boot, default is no menu display, shutdown is not saved.

**5. Battery compartment**

1\*AA battery, when mounting battery, the positive placed inside.

**6. Metal antiwear shell**

Anti wear Aluminum Alloy shell, the bottom left both sides for magnetic surface.



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