

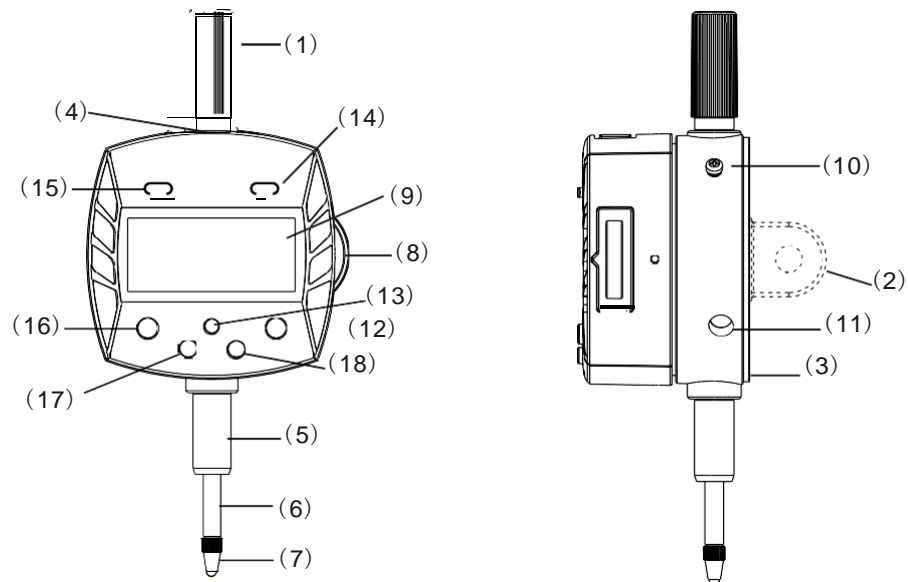
ELECTRONIC INDICATOR MANUAL

IMPORTANT

- 1). Do not disassemble and modify this indicator.
- 2). To clean the indicator use a soft cloth soaked in a diluted neutral detergent. Do not use any organic solvent (thinner or benzene). It may deform or damage the indicator. A contaminated spindle may cause malfunction. Wipe it off with a cloth damp with alcohol, then wipe the spindle with a cloth damp with a small amount of low viscosity oil.
- 3). Do not clamp the stem directly by tightening a setscrew, etc. If the screw is tightened with a torque of 300N cm or more, the spindle may not move.
- 4). When replacing the contact point, hold the spindle and turn the contact point. Otherwise, the indicator may be damaged.

1. Nomenclature

- (1) cap
- (2) Lug
- (3) Flat back
- (4) Output connector
- (5) Stem
- (6) Spindle
- (7) Contact point
- (8) Battery cap
- (9) Display unit (LCD)
- (10) Lever mounting screw
- (11) Release hole
- (12) ON/OFF button
- (13) ORIGIN button
- (14) +/- button
- (15) in/mm conversion
- (16) ZERO/ABS
- (17) PRESET
- (18) TOL



2. Setting Up

1) Battery Placement

If the battery is replaced, the system will remember the origin, so it is not necessary to set up the origin again.

(1). Remove the battery cap by pulling the battery cap away from the body.

(2). Set a new battery inside the holder (with the + side facing up) and secure the battery cap by sliding the cap back into place.

2). Mounting using the lifting lever set-up(optional)

(1). Remove the cap and unscrew the screw on the top of the spindle,

(2) Loosen the lever mount screw, and mount the lever while hanging it on the stop screw.

3). Mounting on the release hole(optional)

Unscrew the screw from the release hole, then screw the mount into the end of the release.

4) Mounting the indicator using the standard mount

If mounting this indicator on a fixture or a stand, use the stem or lug to clamp the indicator. To clamp it using the stem, use the slotted holder which has an 8mm (8mm DIA) or 9.52mm (3/8" DIA) hole and a tolerance of +0.005mm to +0.02mm

3. Operating Procedures

1) Setting the count direction

The +/- key switches the count direction of display values with respect to the Spindle direction.

2) Setting up the origin

Set the spindle to the position at which the origin is specified, then press and hold the ORIGIN key for more than three seconds, the origin will be set up, the LCD will display "0.000 mm" or "0.00000 in"

3). Setting the measuring system

Press the in/mm key to make the measuring system convert between inch and metric ,

4). Preset

(1). Press and hold the PRESET key for three seconds , The "P" on the LCD will flash and enter PRESET mode.

(2). Press and hold the PRESET key again and the flashing digital display will move from one number to the next one, when the flashing display selects the number you want, press the PRESET key, the display will change from 0 to 9, once you get the number you want, press and hold the PRESET key to select the next digit you want to preset,

(3). When you finish setting all the digits, press and hold the PRESET key, the "P" will flash, press the PRESET key, The LCD will display the preset data and the "P", now the indicator is ready to use.

(4). You can change the measuring mode between preset measuring mode and absolute measuring mode by quickly pressing the preset key.

5). Tolerance function

- (1). Setting the upper tolerance. Press and hold the TOL key for three seconds , The “TOL” on the LCD will flash,
- (2). Press and hold the TOL key, the flashing digit will move from one to the next one, when the digit you want is flashing, quickly press the TOL key, the display will change from 0 to 9, once you get the digit you want, Press and hold the TOL key to select the next digit you want to set,
- (3). When you finish setting all the digits, press and hold the TOL key, the “TOL” will flash, quickly press the TOL key, you can set the second tolerance as above.
- (4). When you finished setting the second tolerance , long press the TOL key, the “TOL” will flash, short press the TOL key, now the indicator is ready to use.
- (5). The system will remember the upper or lower tolerance,
- (6). Quickly press TOL key will enter the tolerance measuring mode, when the measuring value is between upper and lower tolerance, the LCD will display “0”, when the measuring value is bigger than the upper tolerance, the LCD will display “>”,when the measuring value is smaller than lower tolerance, the LCD will display “<”,
- (7). Quickly press the TOL key to exit the tolerance measuring mode

4. Error Messages and remedies

- 1) Message "B": The battery voltage is low. Replace the battery with a new one.
- 2) Message "Err":
 - (1). When you use the indicator, sometimes the LCD displays "ERR" but the message will disappear at once because of a temporary error caused due to extremely quick movement of the spindle. Keep on using the indicator, since there is no effect on measurement.

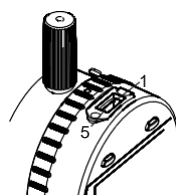
5. Specifications

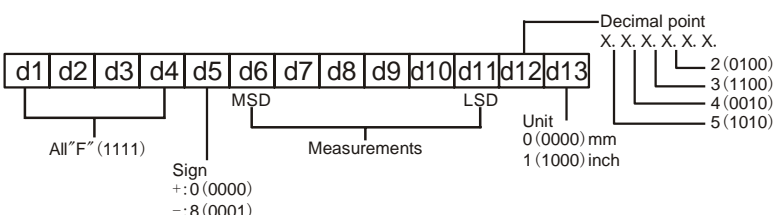
Measuring range	0-12.7mm/0-0.5"	0-25.4mm/0-1.0"	0-50.8mm/0-2.0"
Resolution	0.001mm/0.00005";0.01mm/0.0005"		
Accuracy	0.004mm/0.0002"; 0.01mm/0.0005"	0.005mm/0.00025" 0.01mm/0.0005"	0.006mm/0.0003" 0.01mm/0.0005"
Stem diameter	8mm (8mm DIA) 9.52mm(3/8"DIA)		
Contact point	carbide ball(M2.5x0.45)/(#4-48UNF)		
Measuring force	2.0N or less		
Protection class	IP54		
Measuring direction	All directions are available.		
Power supply	3V Lithium battery CR2032 1PCS. Battery life more than one year		
Operating temperature range	0°C to 40°C		
Storage temperature range	-10°C to 60°C		

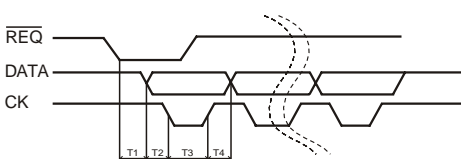
6. Data Output

1)

Pin No.	Signal	I/O
1	GND	-
2	DATA	O
3	CK	O
4	N. C.	-
5	REQ	I



2) 

3) 

$0ms \leq T1 \leq 93.75ms$
$110\mu s \leq T2 \leq 140\mu s$ (Typ: 122 μs)
$110\mu s \leq T3 \leq 140\mu s$ (Typ: 122 μs)
$230\mu s \leq T4 \leq 260\mu s$ (Typ: 244 μs)