Absolute encoder digital indicator always remembers and traces absolute origin zero or preset data. It provides unlimited measure speed and IP54 protection. It will indicate absolute position when turned on and ready to measure. The indicator face is rotatable up to 330°. It comes with SPC/USB data port and can be used with an optional data connector.

Description
1. Preset: Preset data
2. TOL: tolerance
3. in/mm: interchange between inch and metric reading
4. +/-: Change measure direction
5. Origin: set Origin zero
6. Zero/ABS: Switch between incremental and absolute measure
7. ◉ : Power On / Off this gauge
8. SPC/USB data port
9. LCD Digital Display
10. Battery compartment
11. 3/8" diameter shank
12. 4-48 threat carbide point

Specification
Measure range: 0-0.5" (item# 35-700-10)
     0-1" (item# 35-700-25)
     0-2" (item# 35-700-50)
Resolution: 0.00005" / 0.001mm
Accuracy: 0.00016" / 0-0.5"
    0.0002" / 0-1"
    0.00023" / 0-2"
Repeatability: 0.00005" / 0.001mm
Battery: 3V CR 2032 battery

Operating Procedure
Setting the count direction
 The +/- key switches the count direction of display values with respect to the Spindle direction.
Setting up the origin
 Displace 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 "0.00mm" or "0.00000in"
### Setting the measuring system
 Press this key will make the measuring system convert between inch or metric.
Preset
 Long Press the PRESET key for three seconds, the "P" on the LCD will flash, now enter the PRESET mode. Long Press the PRESET key, the flashing digital will move from one to the next one, when digital, you want to preset flashing, short press the PRESET key, this digital will change from 0 to 9, once you get the digital you want, Long press the PRESET key to select the next digital you want to preset.
 When you finish setting all the digital, long press the PRESET key, the "P" will flash, short press the PRESET key, the LCD will display the preset data and the "P", now the indicator is ready to use.
 You can change the measuring mode between preset measuring mode and absolute measuring mode by short press key.
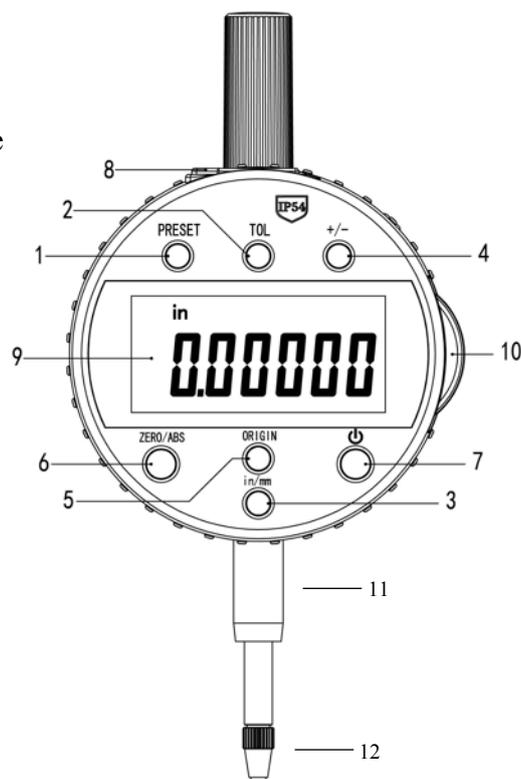
Tolerance:

Long press the "TOL" key for 3 seconds to enter the set up mode. "TOL" on the display will begin to flash. By repeating long press "TOL" key, number digits will flash digit by digit. Short press"TOL" key to change number value for each digit. Two numerical values can be entered during the set up. One for maximum tolerance and one for minimum tolerance. The gauge will automatically compare and recognize the two values entered. After completing the first numerical value, "TOL" on display will flash. Short press "TOL" to start the process of entering the second numerical value (repeat the steps from above to set up value digit by digit). As the second value by entered, "TOL" on display will flash; short press "TOL" key to exit set up mode and "TOL" on display will no longer flash.

When using the Tolerance mode: if the measured value is detected less than the minimum tolerance value, Display will show "⬅". If the measured value is detected more than the maximum tolerance value, display will show "➡". If the measured value is within the max. and min. Tolerance, display will not react.

Error Messages and Remedies

Message "B": the battery voltage is low. Replace the battery with a new one.
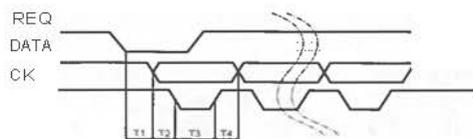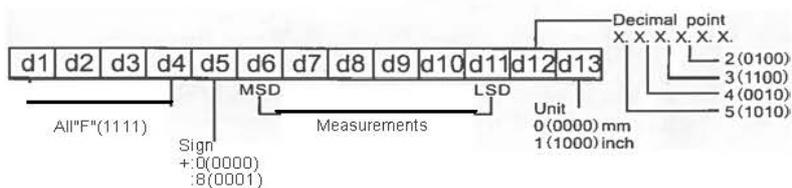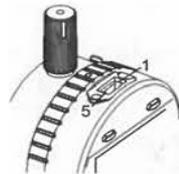
Message "ERR": When you use the indicator, sometimes the LCD appears "ERR" but disappear at once because of a temporary error caused due to extremely quick displacement of the spindle. Keep on using the indicator, there is no effect on measurement.

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		

Data Output

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

d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12	d13

All"F"(1111)

Sign
+:0(0000)
－:8(0001)

MSD ... LSD
Measurements

Unit
0(0000)mm
1(1000)inch

Decimal point
X.X.X.X.X.X.
2(0100)
3(1100)
4(0010)
5(1010)

REQ
DATA
CK

0ms ≤ T1 ≤ 93.75ms
110μs≤T2≤140μs(Typ:122μs)
110μs≤T3≤140μs(Typ 122μs)
230μs≤T4≤260μs(Typ 244μs)

T1 T2 T3 T4

IMPORTANT

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