



OPERATION INSTRUCTION

Digital Depth Gage With Round Depth Bar

Attention:

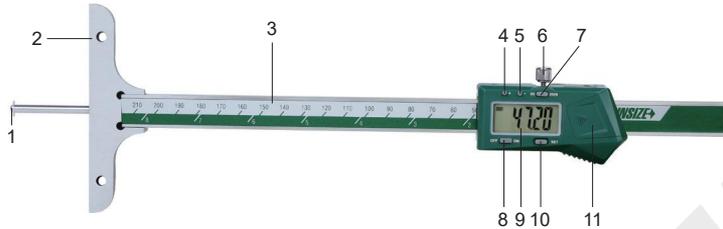
This caliper is not waterproof. If there is coolant liquid on the sticker, the reading may be incorrect. Please clean the sticker with dry cloths. If the problem is not solved, please use WD40 to clean the sticker.

Resolution: 0.01mm/0.0005"

Accuracy: $\pm 0.02\text{mm}/0.0008\text{"}$ (Range: 0-100mm)

$\pm 0.03\text{mm}/0.0012\text{"}$ (Range: 100-200mm)

$\pm 0.04\text{mm}/0.0016\text{"}$ (Range: 200-300mm)



- 1-Point (supplied with three interchangeable points)
- 3-Beam
- 5-'-' button
- 7-'in/mm' button
- 9-LCD display
- 11-Battery cover

- 2-Base plane
- 4-'+' button
- 6-Locking screw
- 8-'OFF/ON' button
- 10-'SET' button



Flat point



Spherical point



Disk point

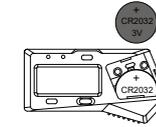
Code	Description	Remark
1148-P101	0.5mm disk point	for narrow grooves
1148-P102	0.7 disk point	for narrow grooves
1148-P103	1mm disk point	for grooves inside blind hole
1148-P104	0.5 mm disk point	for grooves inside blind hole

1. The product can measure depth of small holes ($> \varnothing 4\text{mm}$), use disk point to measure width and depth of grooves inside bore.

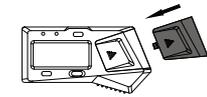
2. Install battery:



Step 1:
Remove the battery cover



Step 2:
Put CR2032 into battery house, the positive side of battery (+) should face out



Step 3:
Close the battery cover

3. Buttons:

'in/mm'

---inch and mm conversion

'OFF/ON'

---turn off/on

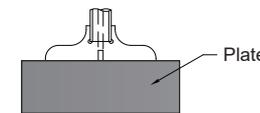
SET+'; '-'

---long press 'SET' >3s to preset initial reading, 'set' flickers on the screen button to change the value, short press 'SET' to exit.

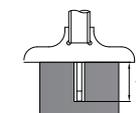
---short press 'SET' to show the preset value press

4. Select appropriate point according to the workpiece's shape, install the point firmly. The measuring method is as following:

---Install flat point or spherical point: put base plane on plate, gently pull the beam to let point contact with the plate and press '0' button to set zero. Measure the depth A (Fig.1).



Set zero



Measurement

Fig.1

MN-1148-E

--install disk point:

Measure depth of grooves inside bore :

pull beam to make the point's inside measuring face contact base plane and press '0' button to set zero. Measure depth A1 and A2 (Fig.2). The disk point's thickness is h, the size of A2 is the reading plus h.

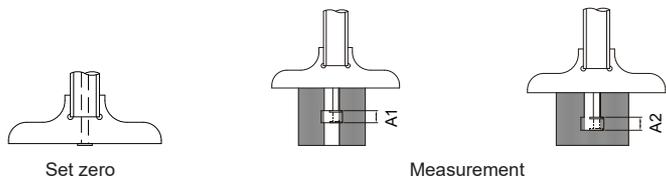


Fig.2

Measure width of grooves inside bore :

pull beam to make the point's inside measuring face contact grooves's upper face and press '0' button to set zero. Make the point's outermeasuring face contact grooves's lower face. Measure depth A3 and A4 (Fig.3). The disk point's thickness is h, the size of A3- A4 is the reading plus h.



Measurement
Fig.3

Notice: Set zero again after replace the point

Make sure there are no dust, cutting chips or other debris on the measuring faces and workpiece surface, otherwise, the measurement may be incorrect.

Measuring face and base plane should be protected from being scratched or damaged. It is necessary to press the base steady and apply constant and proper force to pull the beam.

5. Optional accessory: data output cable (7315-, 7302-, for depth gages without built-in wireless), extension base (code 6141. for 1148-120, 1148-120WL, 1148-200, 1148-200WL, 1148-300 and 1148-300WL).

6. One battery can last for one year use. When the battery is running out, display will become weak, abnormal reading or other phenomena will appear when moving the digital unit, please replace battery. If caliper is not be used for more than 3 months, please remove the battery. Otherwise, liquid may leak from the battery and damage the caliper.

7. If digits don't change when buttons are pressed, take out battery and put it back after 1 minute.

8. Working temperature is 0-40°C/32-104°F, relative humidity should not exceed 80%.