

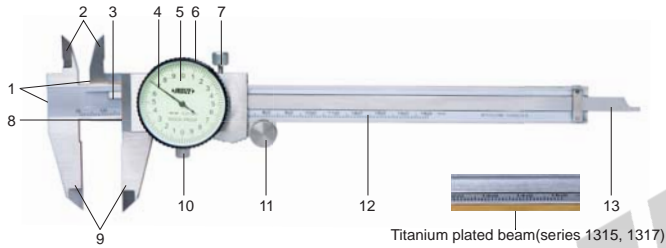


OPERATION INSTRUCTION

Dial Caliper Series 1312, 1311, 1315, 1317

Caution: Do not measure the workpiece if it is rotating, this is dangerous and measuring faces will be worn out

Series	Dial indicator graduation	Accuracy
1312/1315	0.02mm	±0.02mm(Range: 0-100mm) ±0.03mm(Range: 100-200mm)
1311/1317	0.01mm	±0.04mm(Range: 200-300mm)



- 1-Step measuring faces
- 2-Internal measuring jaws
- 3-Gear bar
- 4-Needle
- 5-Circular scale
- 6-Bezel
- 7-Locking screw
- 8-Depth measuring bar
- 9-Mm reading part
- 10-External measuring jaws
- 11-Bezel locking screw
- 12-Thumb roller
- 13-Beam

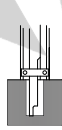
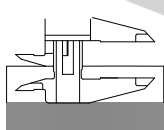
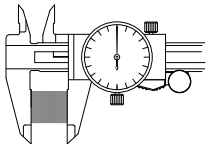
1. Measurement

External measurement

Internal measurement

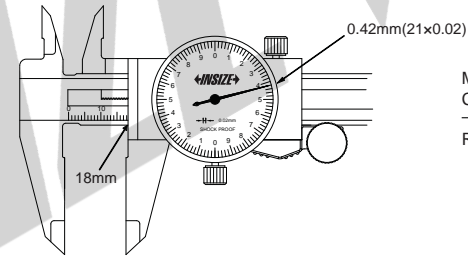
Step measurement

Depth measurement



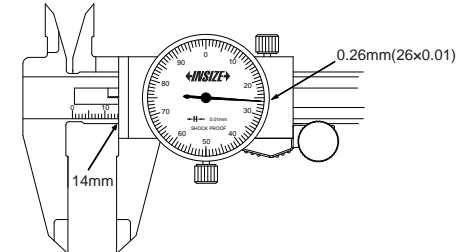
- Prevent cutting chips from getting into the gear bar during measurement, which may damage the dial gauge. Keep the lower jaws closed after measurement, so the depth measuring bar covers the gear bar, which will prevent cutting chips from getting into the gear bar.
- Please clean the measuring faces and beam with soft cloth, then close the external jaws. If the needle does not point at zero, caliper needs to be zero set. Loosen bezel locking screw and rotate bezel until needle points to zero, tighten bezel locking screw to lock bezel at the new position. The caliper should be checked regularly to make sure that it is properly zero set.
- To get accurate measurement, it is necessary to control the force. During measurement, please always apply constant and proper force on the thumb roller. The measuring jaws should "hold" the workpiece and can still "slide" on the workpiece.
- The reading is obtained by adding the reading of the circle scale to that of the main scale.

Series 1312, 1315:



Main scale reading: 18 mm
Circle scale reading: 0.42mm
Reading: 18.42mm

Series 1311, 1317:



Main scale reading: 14 mm
Circle scale reading: 0.26mm
Reading: 14.26mm

MN-1312-E