

# INSTRUCTION MANUAL

## 35-207 Level - Precision Machine 300mm



Q207

# MeasumaX

## PRECISION & FRAME LEVELS

### 35-205, 35-206, 35-207 35-208

The Measumax precision spirit level is mainly used for checking the flatness of machine guideways, and for leveling machine tools or equipment where accuracy is required on the horizontal plain. The Measumax precision frame level is used for both horizontal and vertical leveling

Shaft Type	150mm	200mm	250mm	300mm
Frame Type	-	200mm	-	300mm

#### OPERATION

Readings should only be taken when the bubble has ceased moving

The value as indicated on the level by the bubbles position, is the slope basic length against 1 meter long

If it is necessary to measure the real slope value of a length (L), it can be calculated by the following formula.

$$\text{Real slope value} = \text{Scale} \times L \times \text{Reading value}$$

For example:- Scale value 0.02mm/1000 , l=200mm. Reading value(bubble movement) = 2 divisions

$$\text{Real slope value} = 0.02\text{mm}/1000 \times 200 \times 2 = 0.008\text{mm}$$

#### ZERO ADJUSTMENT

Place the instrument on a steady, smooth and even surface. The surface will need to be reasonable level. Once the bubble has ceased moving read the bubbles position against the scale on the level.

Rotate the level 180 degrees on the horizontal plane and when the bubble has ceased moving then take the reading against the scale on the level.

If the two readings are not the same and at the same end of the level, then adjustment will need to be made in the following way

1. Remove the plastic plug on the side of the level. Behind the plastic plug you will find two locking nuts. (Fig 1.)
2. By adjusting the screw on the top of the level (Fig 2.) and the two locking nuts adjustment can be made back to zero. Only use very small adjustments as the bubble will react very quickly with small adjustment.

This will require patience. Each time you adjust the level in one direction, you must go back and check the other direction. The adjustments are smaller each time. you get closer to the level position

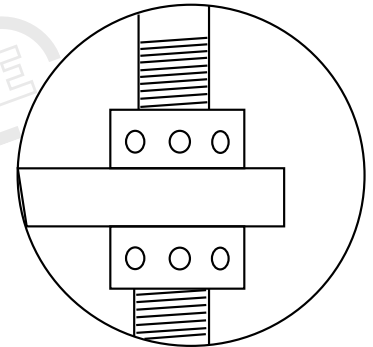


Fig.1

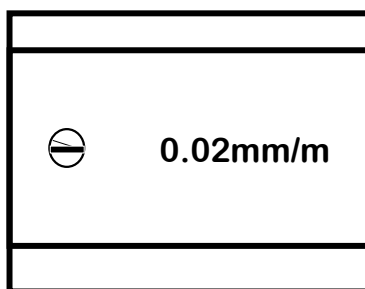


Fig.2

#### NOTICE

1. Before using the level clean the surface of the base, and the work piece to insure the surfaces are clean
2. Temperature changes can effect the operation of the level, so it should be kept away from heat sources
3. Reading must only be taken after the bubble ceases to move.(usually 15 seconds after the level is placed on the surface)
4. Attention must be paid to the zero adjustment and the parallelism of the working surface of the level in order to avoid distortion of the level. Inspection and adjustment are necessary before measuring

