

Dial Comparator

PH-3

Instruction Manual

To ensure correct use, please read this instruction manual carefully before use. After reading, keep it in a safe place where the user can always refer to it.



OBISHI KEIKI SEISAKUSHO Co., Ltd.

Safety Precautions

- ※Before use, please read this instruction manual carefully and use the product correctly.
- ※The precautions shown here are intended to ensure the safe and proper use of the product and to prevent any potential hazards to the user.
- ※The precautions are categorized into three levels — **Danger, Warning, and Caution** — to clearly indicate the severity and urgency of potential harm or damage that may occur if the product is mishandled.

For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and their meanings. ● After reading, be sure to keep this manual in a place where anyone using the product can easily refer to it at any time. ● All of these are safety-related instructions, so please be sure to follow them.		
	Danger	This indicates situations where incorrect handling could result in imminent risk of death or serious injury.
	Warning	This indicates situations where incorrect handling could potentially result in death or serious injury.
	Caution	This indicates situations where incorrect handling may result in injury to persons or only property damage.
Examples of symbols		The △ symbol indicates the presence of danger, warning, or caution messages, with specific precautions described within the figure. (The left figure is used to indicate general danger, warning, or caution without specifying details.)
		The ○ symbol indicates prohibited actions, with specific precautions described within or below the figure. (The figure on the left is used for general prohibition notices without specifying particular actions.)
		The ● symbol indicates mandatory actions, with specific instructions detailed within the figure. (The figure on the left is used for general mandatory actions or instructions without specifying details.)

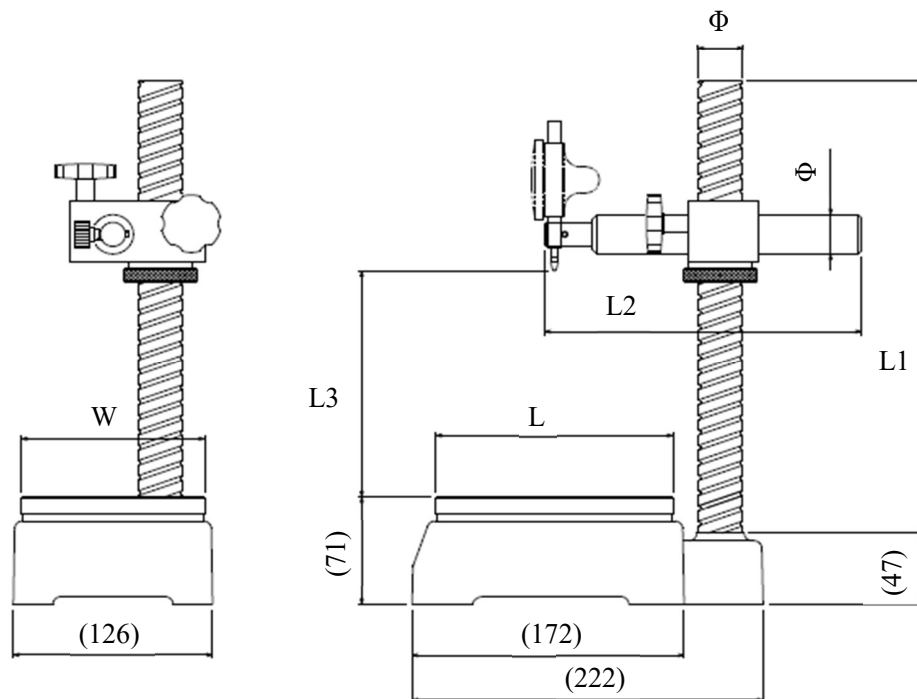
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1. Product Features

- The top surface of the base is fitted with a grooved hardened plate.
- Since the arm is of the sliding type and can be moved in and out, measurements can be performed at any position on the base surface.

Note: A dial gauge is not included.

2. External View



3. Specifications

Code No.	Model	Table Surface Size (L × W mm)	Flatness (μ m)	Pole Size (ϕ × L1 mm)	Arm Size (ϕ × L2 mm)	Measurement Range (L3 mm)	Mass (kg)
MA102	PH-3	150 × 115	10	28 × 220	26 × 170	120	7.0
MA103	PH-3L	150 × 115	10	28 × 300	26 × 170	220	7.5

4. Instructions for Use

- ① Place the comparator on a stable surface such as a Reference Surface Plate.
- ② Check that the column is not loose before use.
- ③ Attach the dial gauge to the arm.
- ④ Position the dial gauge so that it is perpendicular to the table surface.
- ⑤ Check that the dial gauge is securely fixed.
- ⑥ Place the workpiece on the table surface.
- ⑦ Adjust the position of the arm so that the contact point of the dial gauge touches the workpiece correctly.
- ⑧ Perform the measurement.

【Notes】

- **Attach the dial gauge so that it is perpendicular to the table surface. If it is not kept perpendicular, accurate measurement cannot be obtained and dimensional errors may occur.**
- **The arm position may shift when tightening the bracket, so always check the position after tightening.**

5. Precautions for Use

- ① Clean the Precision Surface and the measurement surface of the workpiece before use.
- ② Handle the instrument carefully during use and storage to avoid impact or shock.
- ③ Allow the instrument to acclimate to the ambient temperature before use.
- ④ Do not use or store the instrument in places with drastic temperature changes.
- ⑤ After use, always apply rust prevention treatment and store the instrument in its storage case.
- ⑥ Check the instrument for abnormalities before use in the following cases:
 - When the instrument has been dropped.
 - When an object has been dropped onto the instrument.
- ⑦ If there are scratches or damage, have the instrument repaired and inspected. Remove minor scratches on the Precision Surface locally with an Arkansas stone or similar before use.
- ⑧ Check the accuracy regularly before using the product.
- △ ⑨ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑩ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑪ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑫ If an injury occurs, provide first aid immediately and consult a physician if necessary.

Contact Information



JIS Certified Factory

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Head Office and Factory

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Design, development, manufacturing, and calibration services for precision measuring instruments (levels, surface plates, straight edges, reference measuring instruments, square rulers, blocks, dial gauge stands, comparators, angle measuring instruments, bench centers, squareness measuring instruments).