

OMRON

Model FZD-CAL

3D Calibration Tool for Model FZD
Visual Inspection System

INSTRUCTION SHEET

Thank you for selecting OMRON product. This sheet primarily describes precautions required in installing and operating the product.

Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convenience, keep the sheet at your disposal.

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2.Handling the FZD-CAL

- Do not press in hard or drop the target when placing it in the spacer.
- The target is made of glass. Handle it with care. If the target accidentally breaks, the broken sections may have sharp edges. Do not touch these with your bare hands.

3.Others

- Put the calibration tool into the individual packaging box for storage. Do not place heavy objects on the box. Otherwise it may cause the damage of the target.
- Dispose of FZD-CAL components as industrial waste.

PRECAUTIONS FOR CORRECT USE

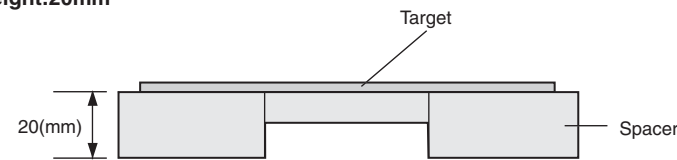
Please observe the following precautions to prevent failure to operate, malfunction, or undesirable effect.

- When the tool is shipped, the glass component (referred to as "target") is placed inside the metal component (referred to as "spacer"). To take the target out, insert your finger into the notch on the side of the spacer and grab the target by its side.
- To carry out the 3D coordinates setting process, place the target and spacer on a level surface. Measuring on a markedly uneven surface will reduce the accuracy of the measurement.
- Be sure not to any dust come in the target, spacer and setting space.
- Be sure to prevent the pattern impression face of the target from getting dirty or damage with dust.
- Do not use thinners, benzene, acetone, or kerosene to clean the model FZD-CAL.

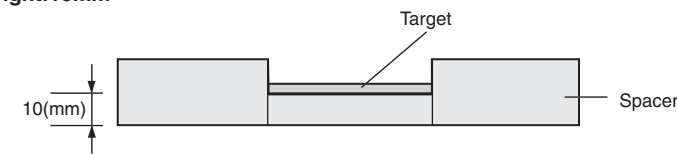
Character

With the spacer, 3D coordinates setting can make a precise perspective distance.

●Height:20mm



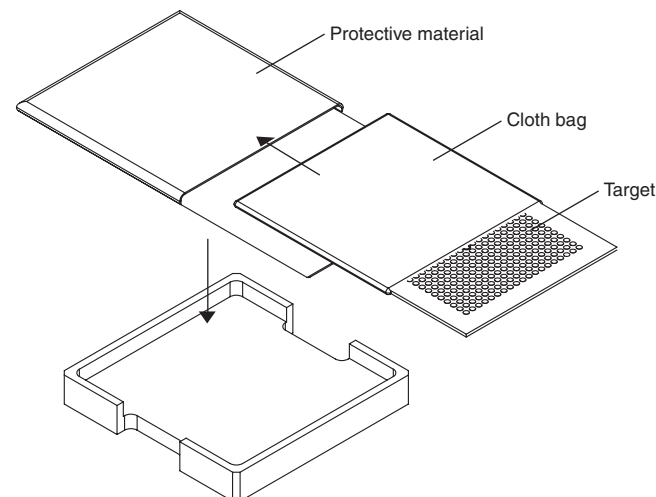
●Height:10mm



※It is also possible to do 3D coordinates setting when the perspective distance is 10mm. Use this when the distance between the camera and the work is small or when calibrating in a dark area (to open the diaphragm of the lens).

Storage

To store the calibration tool, as shown in the figure, cover it with the attached cloth bag, put it inside the protective material, and then place it inside the spacer. Store it in the designated case.



Accessory

- Target ··· 1
- Spacer ··· 1
- Protective material ··· 1
- Cloth bag ··· 1
- Instruction sheet(this sheet) ··· 1

Specifications

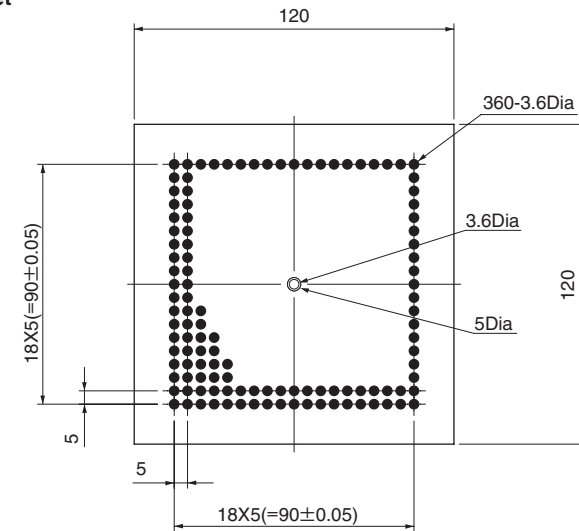
●General Specifications

Model	FZD-CAL	
Component	Target	Spacer
Dimensions	120×120×2.5mm	140×140×20mm
	5±0.05mm(Pattern dimension)	20±0.05mm(Exterior edge depth)
	±0.05mm(Surface accuracy*)	10±0.05mm(Interior edge depth)
Storage temperature / humidity	-25 to +65°C / 35 to 85%RH(with no condensation)	
Material	Base:Glass	Aluminum
	Pattern:Chrome	
Weight	Approx.90g	Approx.560g

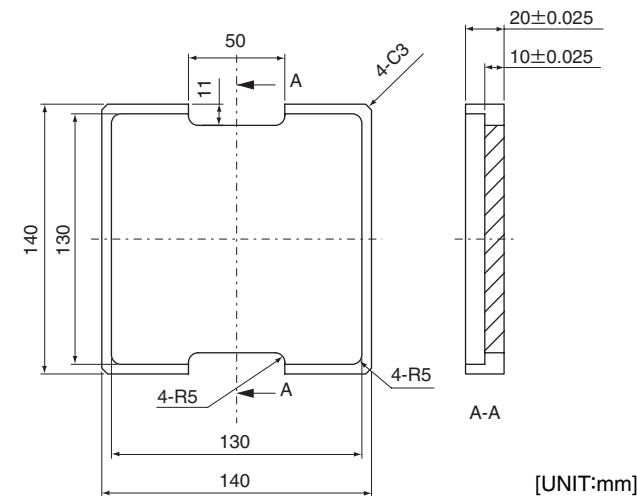
*Variation of measurement results multiple points on the target.

Dimensions

●Target



●Spacer



[UNIT:mm]

PRECAUTIONS ON SAFETY

●Meaning of Signal Words

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury, or may result in serious injury or death. Additionally there may be significant property damage.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

●Alert Statements

⚠ WARNING

This product is not designed or rated for ensuring safety of persons. Do not use it for such purposes.

⚠ CAUTION

The target is made of glass and has sharp edges. Handle it with care. Improper handling may cause resulting in personal injury.

PRECAUTIONS FOR SAFE USE

Be sure to respect following items for safety.

1.Installation Site

Do not install the product in locations subjected to the following conditions

- Ambient temperature outside the rating
- Rapid temperature fluctuations (causing condensation)
- Relative humidity outside the range of 35 to 85%RH
- Presence of corrosive or flammable gases
- Presence of dust, salt, or metallic particles
- Direct vibration or shock
- Reflection of intense light (such as other laser beams or electric arc-welding machines)
- Direct sunlight or near heaters
- Water, oil, or chemical fumes or spray
- Strong magnetic or electric field
- Near high-voltage equipment or power equipment

Suitability for Use

THE PRODUCTS CONTAINED IN THIS SHEET ARE NOT SAFETY RATED. THEY ARE NOT DESIGNED OR RATED FOR ENSURING SAFETY OF PERSONS, AND SHOULD NOT BE RELIED UPON AS A SAFETY COMPONENT OR PROTECTIVE DEVICE FOR SUCH PURPOSES. Please refer to separate catalogs for OMRON's safety rated products.

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of the products in the customer's application or use of the product.

Take all necessary steps to determine the suitability of the product for the systems, machines, and equipment with which it will be used. Know and observe all prohibitions of use applicable to this product.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

See also Product catalog for Warranty and Limitation of Liability.

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