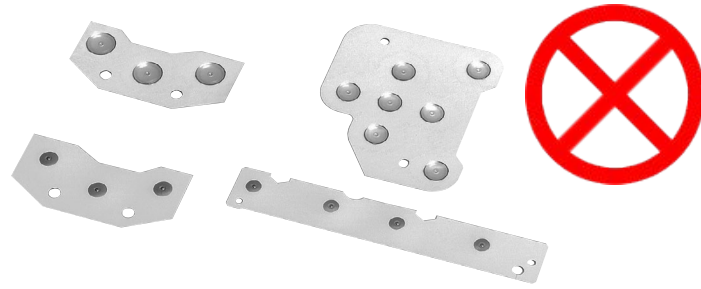


## Ultra-low Profile Dome Array

## B3DA

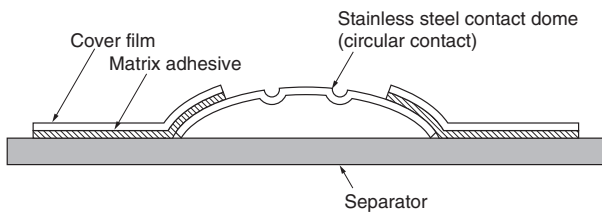
### Excellent Dust Resistance and Crisp Clicking Action

- No soldering required.  
Attach directly to PCB to make an ultra-low profile tactile switch.
- Matrix adhesive used to create highly dust-proof construction with good ventilation.
- Lower profile, lighter weight, and crisp clicking action achieved using stainless steel contact dome keys.
- Original OMRON “circular contact” provides strong resistance to the ingress of foreign matter.
- Custom design and production are available to meet requests for special shapes and key layouts.



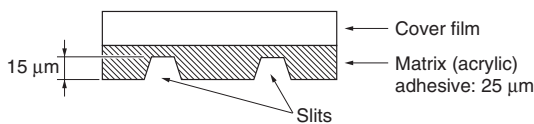
**RoHS Compliant** (Refer to page 8 for details.)

### Structure



#### Matrix Adhesive

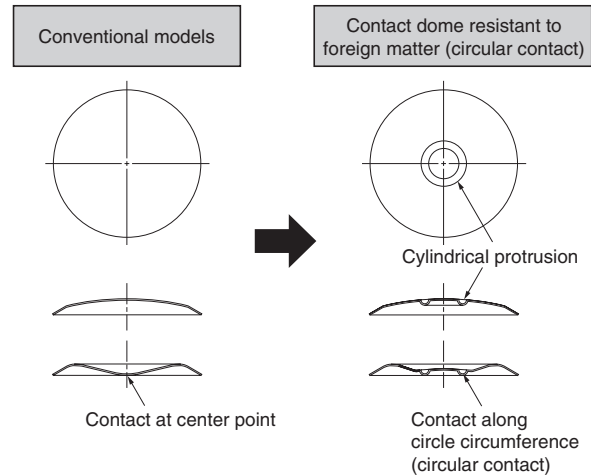
The surface structure of this adhesive has grid-shaped slits, as shown in the following cross-sectional diagram. These slits provide both ventilation and dust-proofing, which is required for contact dome operation.



#### Circular Contact

When Dome Arrays are attached to the PCB, any PCB dust or foreign particles will tend to collect in the center of the key when it is pressed. Therefore, poor contact occurs easily in Dome Arrays that provide contact at the center point only.

The circular contact construction provides contact along the circumference of a circle, thus preventing poor contact by avoiding the center point.



## ■ Specifications

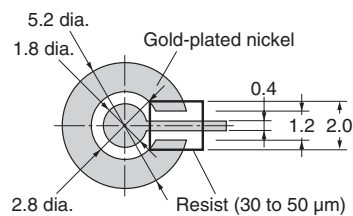
Item	Model	4-mm-diameter Dome Array	5-mm-diameter Dome Array
Diameter		4 mm	5 mm
Operating force (OF)		1.57±0.49 N {160 gf}	
Releasing force (RF)		0.2 N min.	
Pretravel (PT)		0.2±0.1 mm	
Height		0.25±0.1 mm	
Switching capacity (with the recommended contact form)		10 mA, 12 VDC (resistive load) (recommended min. load: 1 mA, 3 VDC (resistive load))	
Life expectancy		500,000 operations min.	1,000,000 operations min.
Ambient operating temperature		-40 to 80°C at 60% max. humidity (with no icing or condensation)	
Ambient storage humidity		10% to 90% (at 40°C max.)	
Material		Stainless steel	
Plating		Silver	

**Note:** Contact dome keys with specifications other than those given above are also available.

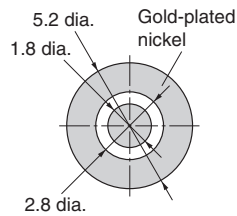
## ■ Recommended Contact Form

### 4-mm-diameter Dome Array

Single-side PCB

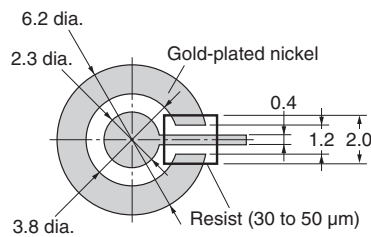


Multilayer PCB

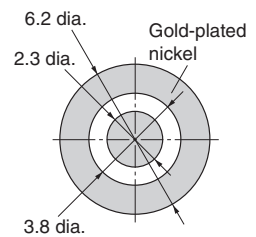


### 5-mm-diameter Dome Array

Single-side PCB



Multilayer PCB



## Precautions

Be sure to read the precautions common to all Tactile Switches on pages 5 to 7 for correct use.

### ■ Precautions for Correct Use

#### Attaching to the PCB

Remove the Dome Array from the sheet using tweezers or a vacuum pick-up tool, and attach it above the contact on the PCB surface, which has been wiped clean in advance.

Do not reuse a Dome Array that has been detached from the PCB. Attach a new Dome Array to the PCB.

Do not touch the Dome Array with bare hands, or with unclean gloves. Doing so may damage the Dome Array, which is the part that comes in contact with the PCB.

#### Reflow Soldering

The Dome Array cannot withstand heat from reflow soldering. Always perform reflow soldering before attaching the Dome Array to the PCB.

#### Washing

Do not wash the Dome Array. The Dome Array is not water-resistant and must not be exposed to water or other liquids.

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.