

Handling Precautions for Neon Brackets (BN)

To ensure safe use, be sure to read these precautions together with the general precautions.

Feel free to contact the Customer Service Center if you have any questions.

Precautions for Use (1/2)

- Neon brackets incorporate protective resistors.

The neon brackets are indicator lamps that operate on 100 V or more AC power. They can operate on DC power, too, but since only one side of the electrode lights up, they will seem darker, and the life expectancy will be reduced to about 60%.
It's better to use DC LED brackets for low voltages below 100 V.

- Use all products within the rated voltages and currents.

Using them at a voltage or current exceeding the rated values may lead to burn damage, etc. Be sure to check the indicated rated values before use.
When products are used at a voltage or current lower than the rated values, the lamps may flicker or not light up when turned on.

- While soldering, be sure not to apply a load to the terminal. Keep the terminals downward or horizontal while soldering, or solder may flow into the main body, causing a short circuit in it.
- Note that the neon brackets are for indicator lamps, not circuit elements.
- Depending on the circuit in which a product is used, the lamp may emit dim light even after the power is turned off, so called false lighting. This phenomenon is caused by factors such as a slight amount of current, such as induced current due to wiring and current leaked from semiconductors (triac, etc.), and the high impedance characteristics of neon lamps. In most cases, you can prevent such false lighting by connecting the following resistors in parallel between both of the terminals of the neon bracket. If the problem persists even after that, contact us.
When using on 100 to 125 V AC power: 100 k Ω , 1/2 watts or more
When using on 200 to 250 V AC power: 100 k Ω , 1 watt or more
You can use any type of resistor (carbon film, metal film, etc.), but particularly avoid using multilayer wire-wound resistors, because they themselves may cause induced current.
- Under a high-frequency environment, the lamp may light up even when voltage is not applied.
- The terminals of neon brackets are strong enough only to bear the connection of wires. Do not use the terminals of products as junctions of wires.
- The case of the main body is made of acrylic or polycarbonate to improve light transmission. Acrylic resins are susceptible to organic solvents and alcohols, and polycarbonate resins are susceptible to organic solvents and alkalis. Both have a tendency to crack or fracture. Pay particular attention when wiping off the lenses and using paint lock to nuts.
- Neon lamps with glass tubes are used inside the bodies. Use products in locations free from vibration and impacts.
- The indicator lamps are for indoor equipment. Note that they cannot be used outdoors.
- When fastening the nuts to mount the main body, make sure that the tightening torque is within the specified values.

Tightening nuts with excessive torque may lead to failures, such as damage to the screw part of the main body.

- Consider the appropriate layout of products (securing insulation distances). When connecting wires, also make sure that the necessary insulation distances are secured between the wires to be connected and adjacent poles, mounting panels, and other products.
- When using plug-in terminal type products, be careful not to twist them when inserting them into or removing them from receptacles.
- When fixing a connecting wire, make sure there is no tension on the connected wire.
- Do not touch charged parts during use (while voltage is applied), or you may receive an electric shock.

Precautions for Use (2/2)

■ Neon lamp specifications

Model No.	Discharge starting voltage	Discharge current	Life	Built in resistor	
BN-9 Series	Less than 75V AC	About 0.46mA	6,000hours or more (When 0.46mA)	110V AC	100k Ω 1/4W (Green:120k Ω 1/4W)
				220V AC	330k Ω 1/4W
Other	Less than 75V AC	About 1.1mA	20,000hours or more (When 1.1mA)	100~125V AC	56k Ω 1/2W
				200~250V AC	150k Ω 1/2W