

**Bulgin Limited**  
200 Cambridge Science Park  
Milton Road  
Cambridge CB4 0GZ

Tel: +44 (0)1223 371 000  
Fax: +44(0)1223 350 642

Web: [www.bulgin.com](http://www.bulgin.com)

**PT-022503-SL**

**Issue Date: 20 May 2025**

**Subject: Silver Tarnishing - Product Notification**

---

Dear valued customer,

Tarnishing is a natural chemical process that occurs when silver reacts with environmental elements such as sulphur or oxygen, resulting in a darkened layer on the terminal surface. While tarnishing typically does not affect the electrical performance, cleaning may be necessary depending on the degree of tarnish and the specific application. In particular, when soldering wires to the terminals, it is essential to take preventive measures and clean the terminals if tarnishing is present to ensure reliable connections.

#### **Storage and Handling Recommendations:**

Proper packaging, labelling, storage, and handling significantly reduce the risk of tarnishing and help maintain terminals in optimal condition:

- Avoid exposure to air and pollutants: Keep terminals away from sulphur-containing materials such as rubber bands, foam, cardboard, and certain cleaning agents, as these can accelerate tarnishing.
- Control temperature and humidity: Store in a cool, dry environment with temperatures between 15-25°C (59-77°F) and relative humidity below 40%.
- Limit storage duration: Follow a First-In, First-Out (FIFO) system. For long-term storage, inspect terminals periodically for signs of tarnish or degradation.
- Avoid UV and light exposure: Keep products away from direct sunlight or fluorescent lighting, which can accelerate chemical reactions.
- Repackaging requirements: If repackaging is necessary, ensure appropriate moisture-sensitive packaging is used and clearly labelled.
- Handling precautions: When opening and removing products from packaging, reseal immediately to limit humidity exposure. Replace any desiccant bags as needed. Always use clean cotton gloves or finger cots to prevent contamination from oils or dirt.

#### **Cleaning Procedure for Tarnished Terminals:**

- Use a 4mm fiberglass pen type holder to gently remove tarnish from the silver-plated surface. Apply light pressure to avoid damaging the plating.

- ⬡ After mechanical cleaning, wipe the area with a cotton swab lightly moistened with Isopropyl Alcohol (IPA) to remove any remaining residues.
- ⬡ Allow the terminals to air dry completely before further use.
- ⬡ Once cleaned, store the terminals in sealed, moisture-protected packaging with silica gel in a cool, dry location to prevent future tarnishing.

By following these handling and cleaning practices, the terminals can be maintained or restored to a condition suitable for optimal performance.

Regards,  
Bulgin