



# Things to know

## Cord End Terminals



### Technical Breakdown

A cord end terminal, which most professionals refer to as a bootlace ferrule, is essentially a small metallic tube, usually made from tin-plated copper. Its job is simple: to gather the fine, vulnerable strands of a flexible conductor and compress them into one single, safe contact point.

This termination instead of inserting bare strands into a screw terminal, like a breaker or control unit that can damage the wires. This leads to high resistance, poor contact and eventually overheating. Using the right ferrule guarantees optimal conductivity and mechanical strength.

We use single cable ferrules most of the time for standard connections. But there are twin (dual) cable ferrules available, designed with a wider barrel, which is critical for correctly terminating two separate conductors into a single, approved clamping point.

We also have insulated versions with a plastic collar for easy wire insertion and uninsulated ones, typically chosen for space restricted or high temperature applications.

**How to Choose** - The absolute most important step is size matching. The ferrule's cross sectional area, always measured in  $\text{mm}^2$ , must be an exact match for the cable size. If you have to consolidate two wires, you must select a twin ferrule rated for that specific dual size; never try to force two wires into a single ferrule. Selecting between insulated and uninsulated often comes down to installation preference.

Insulated ferrules are easier to work with, offering colour coded sizing, ease of insertion and superior protection against stray wire strands. However, uninsulated ferrules remain necessary where temperatures are high or when working in tight, restricted terminal environments. Final check: always prioritize ferrules made from quality tin-plated electrolytic copper for maximum long-term resilience against corrosion.

**Best Practices** - A good ferrule is completely useless if the crimp is wrong. Therefore, the single best investment you can make is a ratchet-controlled crimping tool. Tools that create a hexagonal crimp are generally the industry standard and they distribute pressure much more evenly around the conductors. When preparing the wire, only strip enough insulation so the copper fills the metallic tube entirely. No more than that. Also, check to ensure both cables are seated correctly in a twin ferrule before you crimp. A mechanical pull test is mandatory after every crimp to verify the connection. If the wire pulls out, you must cut it off and start again.

**Q Is there any scenario where I can substitute soldering for using a cord end ferrule?**

**A** No, absolutely not. Solder is soft and flows. When it's compressed under a terminal screw, it loses shape (this is called "cold flow") over time. That results in a loose connection, which is a major fire hazard due to arcing and resistance. A ferrule and a proper crimp create a permanent, hard wearing connection that soldering simply cannot replicate under pressure.

**Q What is the main reason an insulated ferrule's plastic collar is colour-coded?**

**A** The colour-coding is primarily a safety and identification feature. It simplifies inventory and confirms the size ( $\text{mm}^2$ ) of the ferrule at a glance, which speeds up assembly and reduces the chance of mismatching wire gauge and ferrule size during installation.