

Frequently Asked Questions

Should I use shielded or unshielded communication wire for BACnet MSTP?

In nearly all applications, unshielded twisted pair is preferred for BACnet MS/TP communications. However, the decision on wire type – shielded versus unshielded – is the responsibility of others, not the equipment manufacturer. When shielded wire is used, be sure to have the installer confirm proper shielding to eliminate the risk of unwanted electrical noise on the communication link.

Background

For BACnet MS/TP communication, one of two types of communication wire/cable is used – either shielded or unshielded. In most cases, either type is acceptable.

Because the communication wire/cable is almost always the responsibility of “others”, such as the controls contractor or low voltage electrical installer, the equipment manufacturer rarely makes the decision or recommends the type. The position of the manufacturer is that either type is acceptable in most applications.

In rare cases it may be necessary to use shielded cable to properly capture and drain known sources of electrical interference. However, introducing shielded cable introduces the risk of inviting electrical noise onto the wire if not installed properly. For that reason, many contractors select unshielded wire for ease of installation and reliability.