



Application Note

Installing Class 1 Communication Circuits

Purpose:

This document is provided by Tigo Energy to provide guidance on installing the Gateway wire as a Class 1 communication circuit. Please check all local codes before installing any electrical equipment.

Description:

According to NEC Article 725.41 and 725.43 you may install communication wire in the same conduit as power conductors as long as it is an associated system. This is a Class 1, Power-Limited, Control circuit. You may install the gateway wire in the same conduit as the string homeruns as long as the gateway wire has the same insulation voltage rating AND you provide over-current protection (fuses or breakers) at the Management Unit (MMU) to protect the circuit from faults. The most common wire type that meets these requirements is Instrumentation Tray Cable (ITC). Ensure that the nominal outside diameter is less than .31 inches. Most of this wire is also not twisted pair so its use is limited to cable runs of under 150 Ft.

Recommended Cable:

18/4, ITC, 600V

Omni Cable, P/N: A11804