



Wiring the SEL-2400 and SEL-700 Series Relays With Dual Ferrule Terminals

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INTRODUCTION

The SEL-2400 and SEL-700 series relays provide a variety of input and output (I/O) options that are designed to withstand harsh physical and electrical environments. The SEL-2411 Programmable Automation Controller, SEL-2414 Transformer Monitor, SEL-734 Advanced Metering System, and SEL-700 series relays provide flexible analog and digital I/O as well as CT and PT inputs via four slots for optional SELECT I/O cards. The flexibility of these products makes it possible to meet a wide range of remote monitoring and control needs. The SEL-2440 DPAC Discrete Programmable Automation Controller offers 48 digital I/O and is ideal for utility and industrial applications that need rugged and reliable I/O at an economical price.

PROBLEM

The SEL-2400 and SEL-700 series relays use Phoenix Contact connectors with a small pitch, which is ideal for maximizing I/O density. However, many industrial solutions insert two wires into one terminal and daisy-chain the I/O to help simplify wiring and reduce costs. Because of the small pitch of the connectors, fitting two wires into one terminal is difficult and may result in birdcage wires.

SEL SOLUTION

Simplify daisy-chaining from one terminal to the next by using crimped Panduit® ferrule dual-wire terminals. These terminals combine two wires and fit into Phoenix Contact connectors. The dual ferrule terminals provide a straightforward solution and take up a minimal amount of critically important space.

Use the following equipment to daisy-chain the terminals:

- Dual ferrules: Panduit dual-wire ferrule
 - Part Number FTD80-10-TL (14 AWG [American Wire Gauge])
 - Part Number FTD78-8-D (16 AWG)
- Crimp tool: CRIMPFOX 10S, Part Number 1212045

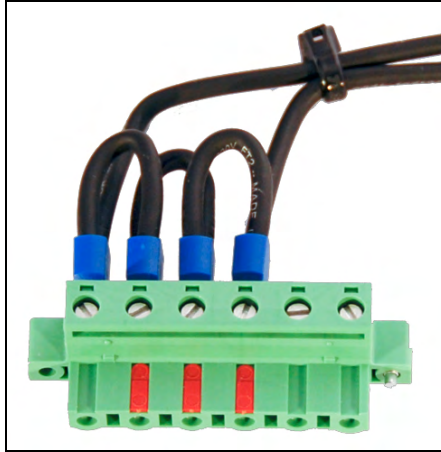


Figure 1 Daisy-Chaining Made Easy

To implement this solution, strip the insulation off of the two wires using Panduit-recommended processes and strip lengths (16 AWG: 7/16 inch, 14AWG: 9/16 inch). Next, insert both wires into the ferrule through the DIN end sleeve. Use the crimp tool to secure the wires in the ferrule, and crimp the barrel into a square shape that fits into Phoenix connectors. Continue daisy-chaining and connecting wires as necessary.