SEL-3094 Interface Converter

Improve Safety and Security of Teleprotection Links by Applying Optical Fiber

Use standard optical fiber between teleprotection equipment and multiplexers.

Features and Benefits

**IEEE C37.94 Standard Conversion**
Converts older electrical teleprotection interfaces to new optical standard. The SEL-3094 links devices with ITU-T G.703, EIA-422, EIA-485, or EIA-232 electrical interfaces to IEEE C37.94 fiber-optic devices.

**Easy Application**
All settings are made with ten control switches. LEDs indicate the state of inputs, outputs, and the communications link.

**High Speed**
Uses one 64 kbps time slot in a digital multiplexer.

**Improved Safety and Isolation**
Fiber-optic connections provide isolation from dangerous ground potential rise, prevent induced electrical noise, and eliminate signal ground loops.

**Universal Power**
Power supply operates from 18 to 300 Vdc and 85 to 264 Vac.
**SEL-3094 Interface Converter**

### Application Examples

Convert most electrical links to IEEE C37.94 fiber-optic standard.

**Link an IEEE C37.94 compliant relay (i.e., SEL-311L) to a noncompliant multiplexer.**

**Connect a relay using its electrical interface to an IEEE C37.94 compliant multiplexer or transfer switch (i.e., SEL-2126).**

**Use optical fiber between relays and multiplexers that have only electrical interfaces available.**

### General Specifications

#### Data Links

**Electrical Connection**
- Connector: DB-25
- Interface: ITU-T G.703, EIA-422, EIA-232, or EIA-485 standard

**Optical Connection**
- Connector: Two ST® connectors
- Interface: IEEE C37.94 standard

**Speed and Delay**
- Speed: 64 kbps: ITU-T G.703, EIA-422
  - 9.6 kbps: EIA-232 or EIA-485
- Delay: Less than 200 µs

#### Laser Safety Standards

Class 1 laser product
- USA—21 CFR 1040.10

#### Substation- and Plant-Grade Equipment

Designed, built, and tested with the same practices, processes, and standards that we use for our protective relays, communications processors, and other products.