# **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.

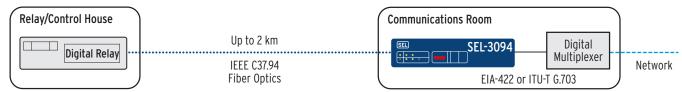
## **Universal Power**

Power supply operates from 18 to 300 Vdc and 85 to 264 Vac.

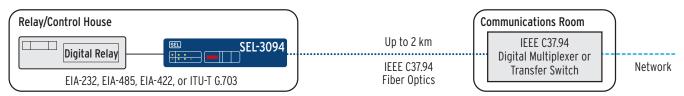
## SEL-3094 Interface Converter

## **Application Examples**

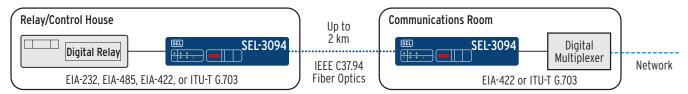
Convert most electrical links to IEEE C37.94 fiber-optic standard.



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

Europe — IEC 60825-1:1993 + A1:1997 + A2:2001

## 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.





