SEL-2515 Remote I/O Module

Remote I/O for SCADA and Station Integration

Provides additional digital inputs and outputs for SEL communications processors.

Features and Benefits

Additional Monitoring and Control

Eight digital inputs monitor the status of external contacts that are transmitted via SEL Fast Meter messages to a communications processor. Control eight contact outputs using SEL Fast Operate commands.

Improved Safety

Use fiber-optic cable instead of control wiring to outside apparatus to eliminate exposure to ground potential rise and other dangerous voltages that can be present in a substation yard.

Easy Application

LEDs indicate the position of each contact output and the status of each sensed input. An "ENABLE" LED indicates that the unit is properly functioning. A "LAMP TEST" pushbutton illuminates all of the LEDs. Control (DIP) switches are used to set basic operating parameters.

Dependability

Fiber-optic links reduce or eliminate data errors from electromagnetic interference. The SEL communications processors monitor the fiber-optic connection to the SEL-2515. The communications processors create alarms when the fiber-optic cabling is damaged, disturbed, or disconnected.

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General Specifications

Fiber-Optic Port Options

Connector	Optical Fiber	Compatible Transceiver	Maximum Recommended Distance (km)
V-System®	200 µm multimode[1]	SEL-2800	0.5
ST®	50, 62.5, or 200 µm multimode[2]	SEL-2815	15
ST	9, 10 µm single-mode[2]	SEL-2830	80

[1] *Class 1 LED product complies with 21 CFR 1040.10*
[2] *Class 1 Laser product complies with 21 CFR 1040.10*

Fiber-Optic Port Speed

19200 bps
9600 bps

Output Contacts

IEEE C37.90 Tripping Output Performance

Make	30 A
Carry	6 A
MOV Protected	270 Vac RMS; 360 Vdc continuous

Logic Input Ratings

4 mA nominal input current

Voltage Ranges (selected at order time):

Range	On	Off
24 Vdc	15–30 Vdc	
48 Vdc	38.4–60 Vdc	<28.8 Vdc
110 Vdc	88–132 Vdc	<66 Vdc
125 Vdc	105–150 Vdc	<75 Vdc
220 Vdc	176–264 Vdc	<132 Vdc
250 Vdc	210–300 Vdc	<150 Vdc

Operating Temperature Range

–40° to +85°C (–40° to +185°F)

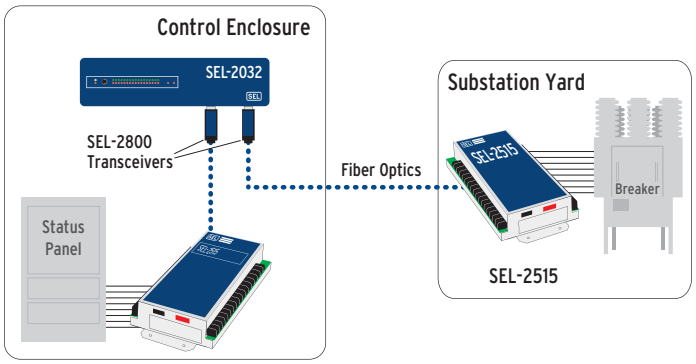
Power Supply Ratings

24 V	16–36 Vdc, 5 W maximum
48/125 V	36–200 Vdc or 85–140 Vac, 5 W maximum
125/250 V	85–350 Vdc or 85–264 Vac, 5 W maximum

Dimensions

338.6 mm H x 165.1 mm W x 55.2 mm D (13.33 in x 6.5 in x 2.175 in)

Application Overview



Control and monitor remote devices through reliable, safe, economical fiber-optic links. Add input and output (I/O) to SEL communications processors. Communications processor-based systems are far more reliable than RTU-based systems and provide added functionality to tap the valuable data in digital protective relays.

An RTU only provides remote I/O for SCADA; therefore, you do not benefit from the other functions available through an SEL communications processor-based system—protection settings management, power system report management, high-speed local logic, and direct engineering access. The added I/O of SEL-2515 Remote I/O Modules allows you to select a communications processor solution for even more applications, instead of settling for an RTU.

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