# SEL-9192 Utility-Grade USB Modem



# Utility-Grade Dial-Up Access





The SEL-9192 adds dial-up access to devices in harsh utility and industrial environments.

### Features and Benefits

### Wide Temperature Range

Operation temperature from -40° to +85°C (-40° to +185°F).

### **Compression and Speed**

Allows data speeds from 300 bps to 56 kbps. Supports V.44 and V.42bis data compression.

### Standard Input Voltage

Input voltage is 5 to 30 Vdc. Power from an external source through the USB-B connector or through the DB-9 connector.

### **Easy Configuration**

Uses extended AT (attention) command sets.

### **Durable and Reliable**

Includes Telco line surge protection, a rugged case, and SEL's ten-year warranty.

### **Functional Overview**

The SEL-9192 is a 56 kbps dial-up modem built to withstand the extremely harsh conditions in a utility environment. Connect remote terminal units (RTUs), communications processors, and other equipment for dial-up or dial-out engineering access or data acquisition through the DB-9 serial or USB-B connectors. Power the SEL-9192 with the optional power supply or internally through connected USB-B or DB-9 serial ports. Configuration is simple with the extended AT command set.

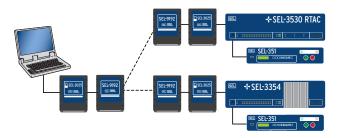
# SEL-9192 Utility-Grade USB Modem

## **Applications**

The SEL-9192 is ideally suited for point-to-point and point-to-multipoint dial-up access applications in harsh environments and extreme temperatures. Use the SEL-3025 Serial Shield™ in conjunction with the SEL-9192 to encrypt all serial traffic across the dial-up link.

# Secure Engineering Access Through a Communications Processor

Use the SEL-9192 to provide remote dial-up communications to field equipment, such as the SEL-3530 Real-Time Automation Controller (RTAC), protective relays, and other intelligent electronic devices (IEDs). Add the SEL-3025 Serial Shield to encrypt dial-up communications.



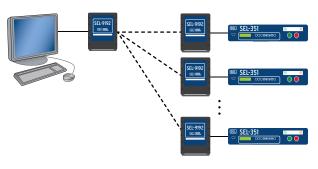
# Dial-Up or Dial-Out Point-to-Point SCADA Communications

Connect the SEL-9192 to individual IEDs, or connect to a communications processor to retrieve data for several IEDs in a given location. Devices that support dial-out communication can send events or other information to the host computer.



### **Dial-Up Point-to-Multipoint SCADA Communications**

Take advantage of existing phone lines by using the SEL-9192 as a backup dial-out communications path for SCADA communications.



### **General Specifications**

#### **Indicators**

Power Status Green LED

Modem Tx Green LED

Modem Rx Red LED

Modem DTR Green LED

Modem DCD Red LED

### **Power Requirements**

Voltage Input  $+5 \text{ to } +30 \text{ Vdc}, \pm 10\%$ 

Power Consumption <1 W

Power Inputs DC external source

USB-B power DB-9 power

#### **Communication Ports**

Interface EIA-232

Connectors USB Port (Type B)

Female DB-9 Port (DCE)

### **Serial Speeds**

Serial Port 300–56000 bps
Client-to-Client 300–33600 bps
Telephone Line RJ11 Port

### **Dimensions**

125.0 mm H x 103.0 mm W x 25.4 mm D (4.92" x 4.06" x 1.00")

### **Operating Temperature**

-40° to +85°C (-40° to +185°F) 0 to 95% humidity (noncondensing)

### **Operating Environment**

Maximum Altitude 2000 m Atmospheric Pressure 80–110 kPa

Overvoltage Category 2 Measurement Category 2 Pollution Degree 2





