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.

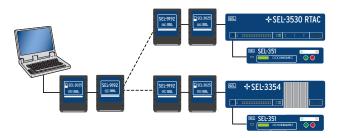
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Applications

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.



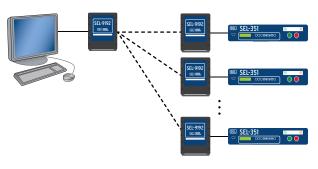
Dial-Up or Dial-Out Point-to-Point SCADA Communications

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





