

SEL-2905

Serial Port Expander



Scale serial connections without adding IP-reachable devices

- Expand serial capacity for an SEL Real-Time Automation Controller (RTAC) or an SEL Port Server to 96 ports.
- Reduce the number of networked assets to manage by using a nonroutable Ethernet protocol.
- Provide accurate time distribution to every connected serial device.
- Power fiber-optic serial transceivers directly from serial ports—no additional power source is needed.



Key Features

High Port Density—Each SEL-2905 provides 16 software-selectable EIA-232/422/485 serial ports. Use daisy-chain or star topologies to scale capacity up to 96 ports per RTAC or SEL Port Server.

Simple Configuration—The SEL RTAC or SEL Port Server automatically detects all connected SEL-2905 expanders. Configure all ports by using ACSELERATOR RTAC® SEL-5033 Software—no expander-level setup is required.

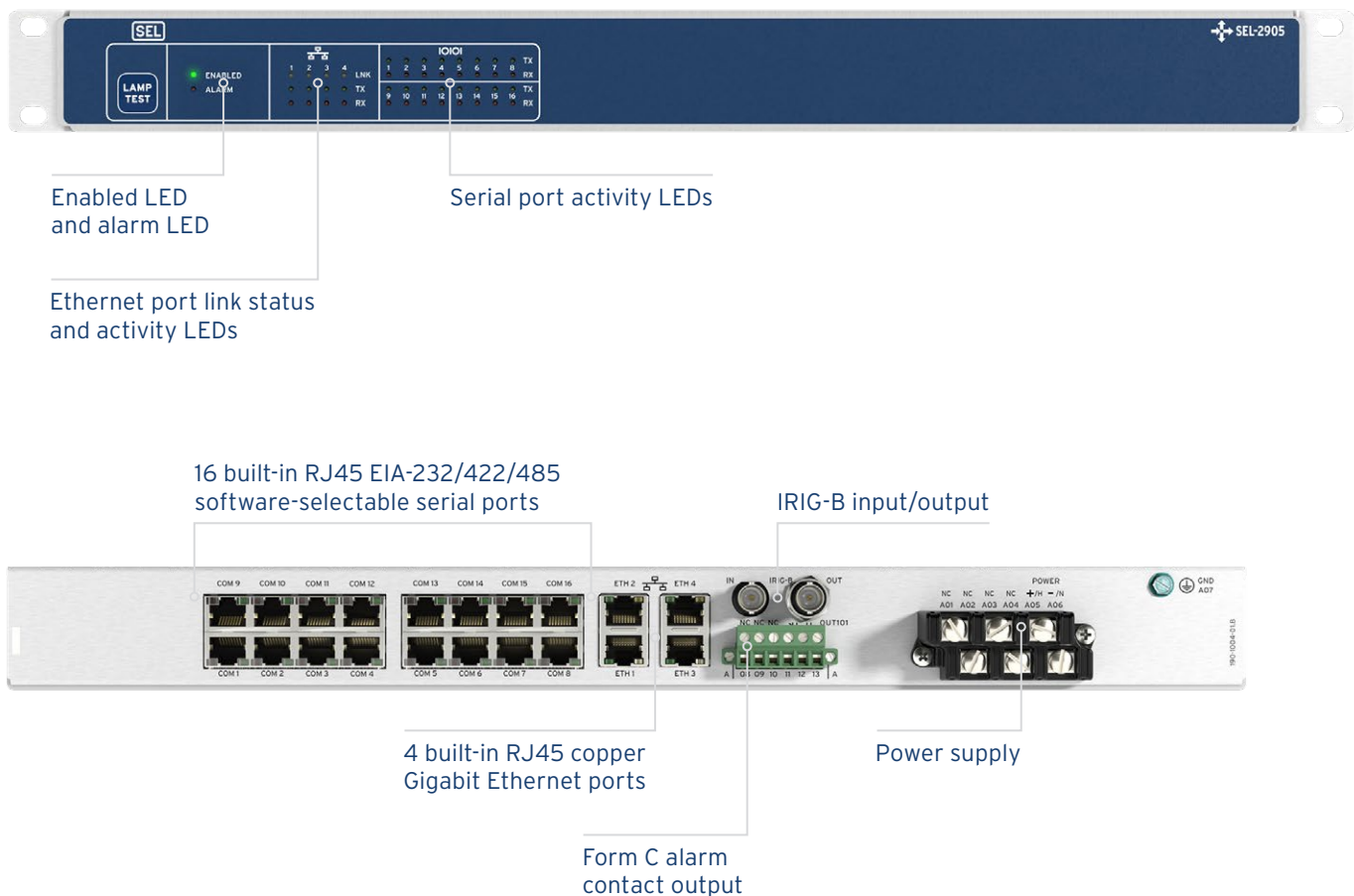
Seamless Expansion—Manage all connected serial devices from the host device. SEL-2905 ports appear as native RTAC or SEL Port Server ports and are enabled or disabled through the host device web-based interface.

Port-Level Time and Power Distribution—Deliver accurate time to every connected serial device by using IRIG-B distribution. Each serial port includes a configurable +5 V output to power fiber-optic serial transceivers.

Substation-Grade Reliability—Engineered and tested for harsh utility environments, the SEL-2905 meets IEEE and IEC standards for electromagnetic interference (EMI)/ESD, electrical fast transient (EFT)/burst, surge, magnetic fields, vibration, and shock and has a specified operating temperature of -40° to $+85^{\circ}\text{C}$.

Warranty, Service, and Support—Every SEL-2905 is backed by a worldwide, ten-year warranty and comes with no-cost technical support for the life of the product.

Overview

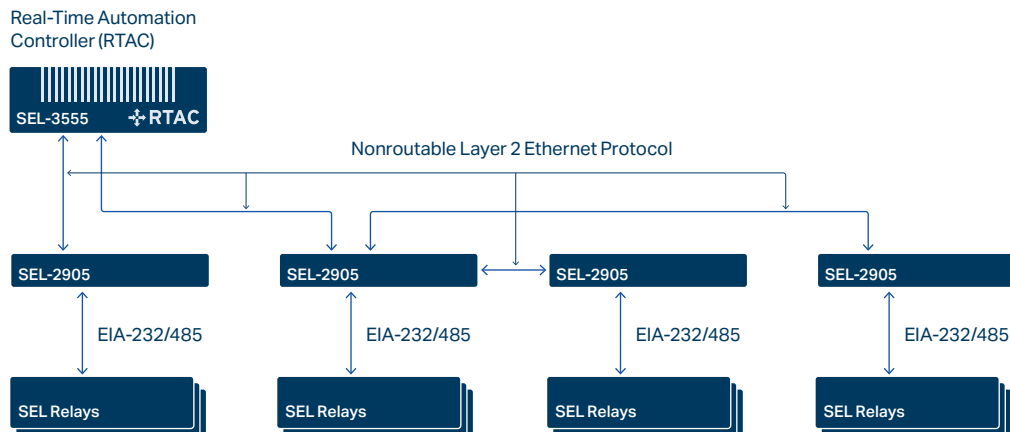


Expand Serial Capacity and Distribute Precise Time

The SEL-2905 Serial Port Expander connects to an RTAC or an SEL Port Server, providing 16 additional ports per expander. Connect with no additional configuration, and then manage and time-synchronize connected field devices via the host RTAC or SEL Port Server.

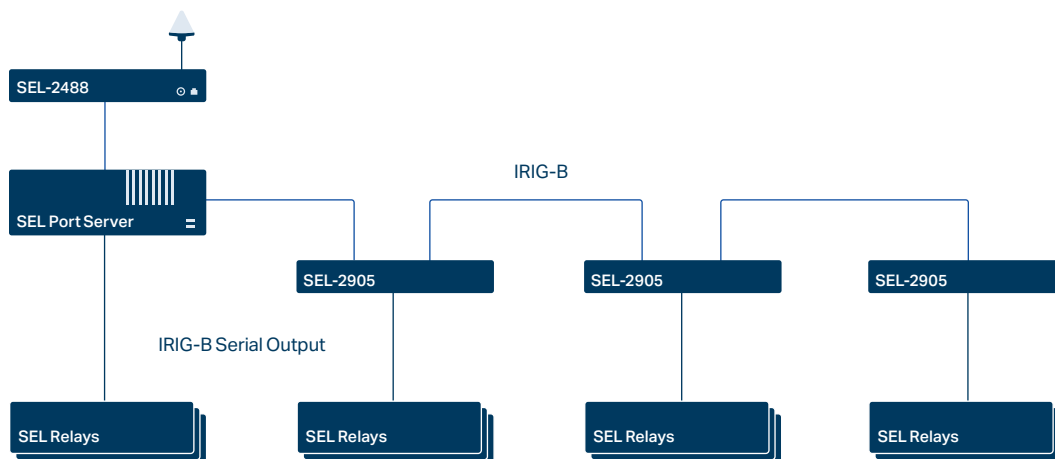
Application 1: High-Density Serial Expansion

Expand serial connectivity without adding IP-reachable assets. Use daisy-chain or star topologies to increase the serial port capacity of a single RTAC or SEL Port Server to as many as 96 ports.



Application 2: Precise-Time Distribution

Distribute accurate time signals to serial devices. The SEL-2905 receives an IRIG-B signal through its BNC input from an upstream time source, such as an RTAC, SEL Port Server, or SEL-2488 Satellite-Synchronized Network Clock. It distributes the IRIG-B signal to connected serial devices through its serial port connections, while its BNC output passes the IRIG-B signal to additional SEL-2905 units throughout the installation.



Specifications

Communications Ports	Serial: 16 RJ45 EIA-232/422/485 software-selectable ports Baud rate: 300–115,200 bps Power: +5 Vdc power on Pin 1 (500 mA maximum) Ethernet: 4 RJ45 copper 10/100/1000BASE
Internal Power Supply	Low voltage: 24–48 Vdc Medium voltage: 48–125 Vdc or 110–120 Vac High voltage: 125–250 Vdc or 120–240 Vac
Mounting Options	Horizontal 1U 19-inch rack mount Horizontal 1U panel mount
Relative Humidity	5 to 95 percent noncondensing
Operating Temperature Range	–40° to +85°C (–40° to +185°F)
Time-Code Inputs and Outputs	1 BNC IRIG-B input 1 BNC IRIG-B output 16 RJ45 serial port outputs
Options	Conformal coating

For more product information, visit selinc.com/products/2905.



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