

Reliable Power Starts with Precision Timing!

Sequence of Events Recorder (SER-32e)

The CyTime™ Sequence of Events Recorder (SER) provides precise, 1 millisecond time-stamped event recording for 32 channels to enable root-cause analysis and advanced system diagnostics. It also provides time synchronization to associated devices with support for several time protocols such as Precision Time Protocol (PTP) and IRIG-B.



Sequence of Events Recorder
SER-32e

Features:

- **Color Touchscreen:**
The SER-32e has a large 4.3" color touchscreen for easy menu navigation, device setup, diagnostics and input status viewing.
- **Time Synchronization:**
Supports IEEE-1588 Precision Time Protocol (PTP), IRIG-B, DCF77, Network Time Protocol (NTP), Modbus TCP/IP, 1 per 10 and ASCII RS-485.
- **Expansion Slots:**
The SER-32e includes 2 expansion slots for additional Digital Input and Digital Relay Output modules.
- **Embedded Web Server:**
Connect over Ethernet via a standard secure web browser (HTTPS), with no proprietary software needed.
- **Easy Integration:**
Support for Modbus TCP and/or RESTful API, data allows easy integration into any SCADA, Power Monitoring and Building Management System.
- **Extended Control Power Ride-through:**
An extended control power ride-through to ensure critical events are captured during power loss/outage.

SER - Typical Monitored Points

- Breaker status: open/closed/tripped
- Relay trip signal: normal/trip
- Control switches: open/closed commands
- Control scheme status: auto/manual/test
- Auto-transfer switch (ATS) status: normal/emergency/test
- UPS status: normal/transfer/bypass
- Generator status: stopped/running
- Battery status: normal/alarm

Know What Happened and When.

to
1 ms

Events happen. Reduce your risk.

Understand • Respond • Prevent

- Perform root-cause analysis based on reliable data
- Identify the initial event and track how it cascaded throughout the system
- Evaluate control sequences, timing and operating actions
- Resolve or mitigate persistent issues
- Identify slow breaker operation before it can cause an arc-flash hazard

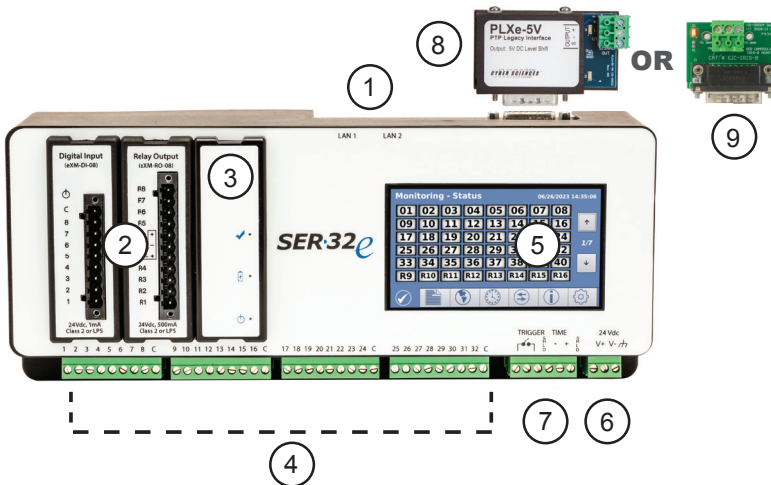
CyTime SER-32e

SEQUENCE OF EVENTS RECORDER

CYBER SCIENCES™

TRYPSTAR®

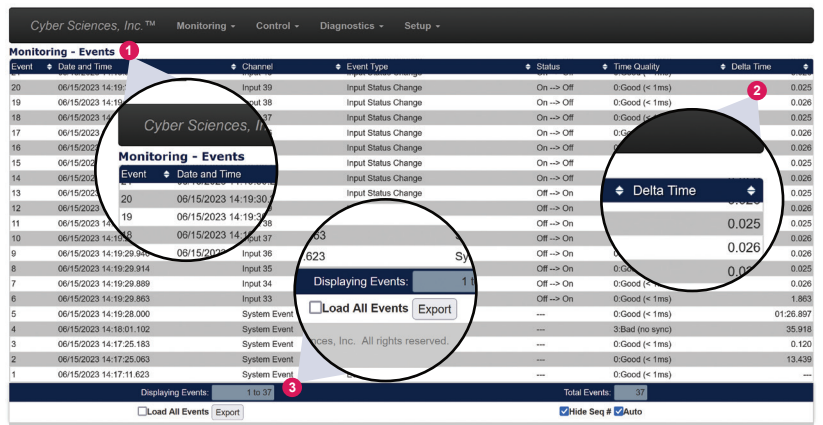
Key Features



- 1 Secure Embedded Web Server
2 x 10/100BaseTx Ethernet ports
- 2 2 x Option Slots for additional I/O Modules
- 3 Power Control Module
- 4 32 High Speed Digital Inputs
- 5 Color Touchscreen
- 6 24 Vdc Control Power
- 7 High Speed Trigger Output / RS-485 IN/OUT, Inter-SER or ASCII
- 8 PLX-Connector for IRIG-B, DCF77, 1 per10 Output (optional)
- 9 EZ-Connector for IRIG-B or DCF77 Input (optional)

Event Reconstruction and Analysis

- 1 Event Details, 1 ms timestamps
- 2 Elapsed time between start/stop pairs
- 3 Export events to Excel®



Ordering Information

Catalog no.	Description
SER-32e	Event Recorder, 32 inputs, 24 VDC Power, 24 VDC Inputs, DIN Rail Mounted (11.5" W x 5.0" H x 2.62" D)
eXM-RO-08	8-output Option Module, 24 VDC, Pluggable Screw Terminal Connector
eXM-DI-08	8-input Option Module, 24 VDC, Pluggable Screw Terminal Connector
PLXe-5V	PTP Legacy Interface for SER-32e, 5V, powered by SER-32e, connects to SER connector (DB-15) (2.92" W x 1.72" H x .84" D)
PLX-24V	PTP Legacy Interface, 24V, 24Vdc, connects to SER connector (DB-15), (2.92" W x 1.72" H x 1.12" D)
EZC-IRIG-B	EZ connector for SER (input: IRIG-B time source)
EZC-DCF77	EZ connector for SER (input: DCF77 time source)
ADK-125V	SER Adapter Kit Bundle (4 units) for 125V
AD125-24V	Individual SER Adapter unit for 125V