SMP IO-2330 system—
Wall-mountable. small format. pre-mapped

Eaton's SMP IO-2330 system belongs to the SMP IO-2000 series, the latest generation of distributed I/O platforms, specially designed to meet modern industry and utility requirements.

This wall-mountable SMP IO-2330 system packs a tremendous amount of features and benefits in a smaller footprint, which makes it perfect for confined spaces.

Eaton relies on the same expertise and high industry standards used to develop our SMP automation platform to offer a highly reliable, easy to set up and flexible I/O modules availibility, at a very competitive price.

Available models

Model	I/Os
SMP IO-2330-A Analog input system	32 AI
SMP IO-2330-C1 Combo system	16 BI, 8 BO and 16 AI
SMP IO-2330-K Control output system	32 BO
SMP IO-2330-S Status and alarm input system	64 BI

Reliable platform

The design of the SMP IO-2330 system leverages Eaton's decades of experience in industrial automation and utility applications.

The SMP IO-2330 system is already pre-mapped to common I/O configurations with four (4) different models; it can be used standalone or integrated seamlessly with the SMP automation platform software and tools applications; communicating with standard DNP3 or IEC 61850 protocols over serial RS-485 or TCP/IP using copper or fiber Ethernet.

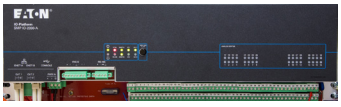
The SMP IO-2330 system is a powerful platform operating in a wide temperature range of –40 °C to +85 °C (–40 °F to +185 °F). All connections are at the front of the device.

Numerous cybersecurity features were integrated into this new platform to help users meet their compliance requirements, including NERC CIP.

Eaton's RTU replacement solution is fully compatible with the SMP IO-2330 system as it provides the same form factor as the legacy GE D20 RTU. Open frame option is also availble, allowing to connenct an Eaton logic panel over an existing legacy terminations panel, keeping the wiring in place. This solution is perfect for RTU upgrades with limited space and no rear end reachability.

Typical applications

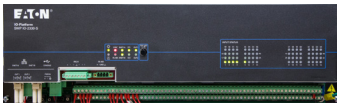
The SMP IO-2330 platform deployed as a standalone unit can be connected directly to a DNP3 or IEC 61850 master station and used for asset monitoring and control with accurate IRIG-B time stamping and micro PLC capability. Its Commissioning Tool is accessible with the USB port. The SMP IO-2330 is ready for remote management by Eaton's IED Manager Suite.



SMP IO-2330-A — Analog input system

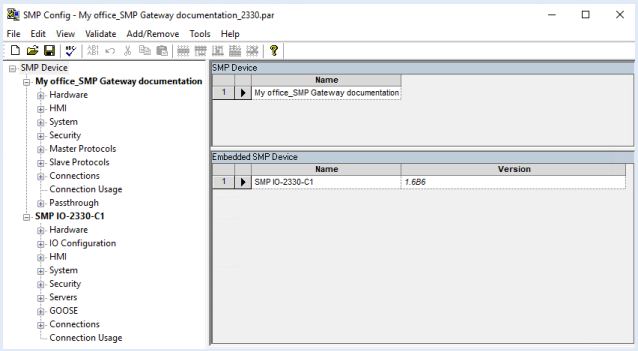
SMP IO-2330-C1 — Combo system

SMP IO-2330-K — Control output system

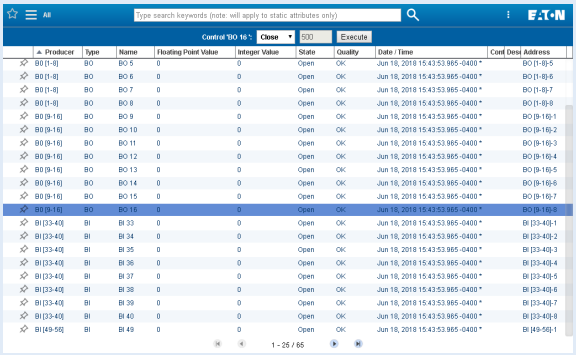


SMP IO-2330-S — Status and alarm input system

Powering Business Worldwide



SMP IO-2330 configuration embedded into the configuration of an SMP automation platform



Standalone SMP IO-2330 platform—I/O commissioning web interface

SMP IO-2330 system main features

- 3U form factor, 2.8 inches depth, no moving parts
- Individual LED for each I/O, application LEDs
- Local/Remote switch
- 24—48 Vdc power supply
- Clock synchronization via IRIG-B input (unmodulated), NTP or protocols
- One USB 2.0 maintenance port (Type B)
- Two programmable output relays
- Two 10/100BASE-T/TX Ethernet ports for daisy chain connections (optional optical LC ports)
- Linux® operating system
- SMP Software and Tools support (SMP Stats, SMP Trace and SMP Logs)
- Configuration with SMP Config: multi instances
- Support of embedded configuration into automation platform configuration (single configuration file for all SMP devices)
- Remote management (firmware upgrade, setting changes, license update)
- Integrated self-diagnostics and watchdog timer
- Micro PLC for programmable logic
- System alarms
- Syslog support
- Secured remote maintenance (SMP automation platform and IMS transparent connection)

Supported protocols and connections

- IEC 61850
- IEC 61850 GOOSE
- DNP3
- DNP3 event queue (up to 1000 events/slave)
- Up to 5 upstream connections

Security features

- Integrated Ethernet firewall
- AES-128/256 encryption
- Account and access management
- All system components digitally signed
- Settings integrity validation
- Integrity validation
- Secure remote management capabilities
- Secure USB maintenance port and command shell
- Ability to disable any unused port
- Factory reset in case of admin password loss
- IEEE 1686-2013 compliant

I/O features

Analog inputs

- User calibration at fixed ambient temperature
- High/low warning support
- Deadband, scaling and units
- Voltage, current (with or without loop supply) modes selectables with individual configuration modules on the terminations panel of the SMP IO-2330-A analog input and -C1combo systems

Binary outputs

- Output protection against single component failure
- Trip/Close pair, Raise/Lower, latch, pulse, pulse pair support
- Persisted operation counter/ operation time
- Binary points software polarity reversal
- Control queuing allowing up to 10 parallel requests, sequentially processed when the same point is targetted
- Test breaker Close/Trip and Master Close/Trip support and LED display

Binary inputs

- Deadband, scaling and units
- DC inputs, voltage range selectable by installing the proper resistor module on the terminations panel of the SMP IO-2330-S status and alarm inputs system
- Tolerance/Intolerance filtering
- Chatter protection
- Fail safe circuit (active level in normal state)
- Binary points software polarity reversal
- Timetag at the beginning or end of filtering (setting)
- Persisted counters (total transitions, up/down direction), with deadband, scaling and roll over detection
- Freeze, clear, freeze and clear counters support
- Current limit input and LED for the SMP IO-2330-K control output system

Coming soon

- SNMP for statistics

For Eaton product information, visit **Eaton.com**

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com/smartgrid

Powering Business Worldwide

Printed in USA
Publication No. PA912012EN
January 2024

Follow us on social media to get the latest product and support information.