Eaton’s SMP™4/DP automation platform is a powerful and rugged platform, providing utilities with secure and reliable data acquisition and management. Its versatile and compact shape makes the SMP 4/DP an ideal tool for both inside and outside the substation fence automation and integration applications. Installed directly in protective relay enclosures or in the switchyard, this SMP Gateway provides essential communication and data concentration features. It has also been designed to operate over a broad temperature range, which is critical to utilities who serve extreme temperature environments.

The SMP 4/DP is robust, but extremely flexible—providing utilities with the advanced features required to build intelligent solutions that meet NIST Smart Grid road map and security guidelines. The SMP 4/DP bridges the gap between substations and automation systems:

- Extracts and concentrates data from any device, regardless of protocol
- Sends data to SCADA, control centers and any other centralized management applications
- Automates data processing and device control
- Provides secure remote access to any device
- Manage alarms and visualize substation single-line diagrams from a web interface
- Future-proof your Smart Grid—facilitates upgrades for security, protocol or other improvements

**Flexibility**

- Ideal for retrofit and upgrade projects. The SMP 4/DP is designed for Greenfield or Brownfield. It integrates existing / legacy RTUs, IEDs, PLCs, and multiple control centers
- Suitable for both pole-top or pad-mounted distribution automation applications
- Universal port (RS-232/485) enables connection to any serial device
- Data filtering allows for efficient bandwidth management over legacy low-speed networks
- Two Ethernet ports support flexible network architectures for security and IEC 61850
- Fully compatible with IED Manager Suite (IMS) for secure remote event, transparent connection (passthrough) and configuration management
- Use with an SMP distributed I/O platform to achieve comprehensive real-time control solutions

**Reliability**

- Supports IRIG-B input for accurate time-stamping of data
- Includes user-friendly configuration tools for simplified commissioning
- Creates a homogenous system with a single point of access for all substation data
- Enhances the performance of your infrastructure with a 600 MHz processor

**Security**

- Comprehensive security features for simplified NERC CIP compliance
- Shares all the security features of the SMP Gateway family, including user authentication, complex passwords, security event logging and monitoring, SSL/TLS encryption, X.509, malware protection and built-in firewall
- DNP3 Master and Slave Secure Authentication V2 and V5 support
Robustness
- Meets all IEC and IEEE requirements for substation-grade equipment
- Advanced architecture saves rack space
- Conformal coating option available for extremely harsh environments
- Intelligence and scalability
- Extend the capabilities of legacy devices with the built-in Logic Processor and the optional Soft PLC
- Extract non-operational data
- Over 100 protocols available— including IEC 61850 and IEEE C37.118

Expertise
- Eaton has decades of experience in substation gateway automation platform design
- Thousands of installed systems worldwide
- SMP 4/DP is rugged, reliable and tailored for our customers’ needs and expectations
- Protect data flows with the built-in firewall and secure maintenance connection (TSL, formerly known as Secure Sockets Layer or SSL)
- Provide single TLS encrypted access port to the enterprise level with IED Manager Suite
- Over 100 protocols available— including IEC 61850 and IEEE C37.118

General features
- Data concentration
- Protocol translation
- NERC CIP-compliant electronic perimeter
- Built-in web server
- Automation functions
- Pass-through connections
- Dial-up connection
- IEC 61131 compatible Soft PLC
- Microsoft Windows®-based configuration and maintenance tools
- Built-in self-diagnostics
- Real-time clock with battery backup
- Built-in watchdog timer
- Power supply monitoring
- Flexible licensing
- SMP Gateway HMI feature (includes remote display of diagrams and substation alarms through web browser)

Protocols
- DNP3, IEC 61850, IEC 60870-5-101/103/104, SEL Fast Meter, IEC Std C37.118 standard, GE, Modbus, OPC, ABB, L&G, Cooper, most electrical industry proprietary protocols

Communications
- Serial: 1 universal (RS-232/485) 3 RS-232 1 USB console
- Ethernet: 2 10/100BASE-TX
- Modem: Optional 56 kbps V.92 V.54

Memory
- Flash: 1 Gbits (128 Mb) NAND Flash
- RAM (LPDDR) 128 Mb
- Low Power DDR (LPDDR)

Connectivity
- Up to 32 device connections
- Up to 8 control center connections
- Up to 10,000 data points
- DNP3 secure authentication V2 and V5

Standards compliance
- Protective relay standards: A
  - IEEE Std C37.90E-2005
  - IEC 60255
- EMI immunity type tests and specifications:
  - IEC 61850-3
  - IEEE 1613
- Telephone terminal equipment:
  - TIA-968-A
  - CS-03
- Unit test list available upon request
  - A With some exceptions.

Security features
- Built-in firewall
- Built-in malware protection
- Modem connection management
- Remote access management
- User account management:  • Strong passwords
  • User accounts and user groups
  • Detailed group permissions
- Security event logging and monitoring
- Account lockout
- Retrievalable access logs for auditing
- All system components digitally signed
- Continuous file monitoring for system integrity
- DNP3 secure authentication V2 and V5

Dimensions
- 1.81 in H × 4.49 in W × 6.43 in L
- 46 mm H × 114 mm W × 163.2 mm L
- 1 lb / 454 g

Electrical
- Power supply options:
  - 10–36 Vdc
  - 19–75 Vdc
  - 85–264 Vac / 105–370 Vdc
- 5 W consumption
- Lifetime built-in battery

Environmental
- Operating (at CPU 100% usage): (DC) –40 °C to +70 °C (–40 °F to +158 °F)
  (AC) –40 °C to +55 °C (–40 °F to +131 °F)
- Storage: –40 °C to +85 °C (–40 °F to +185 °F)
- Humidity: 5 to 95%, noncondensing
- Low pressure (operation and storage altitude): Up to 4572 m (15,000 ft)
  - A MIL-STD-810G Method 500.5 Procedure I and II.

Warranty
- 5-year limited warranty

Procedure I and II.
- MIL-STD-810G Method 500.5
- IEEE Std C37.90E-2005
- IEC 60255
- Built-in web server
- EMI immunity type tests and specifications
- Built-in diagnostics
- Power supply monitoring
- Flexible licensing
- Built-in firewall
- Built-in malware protection
- Modem connection management
- Remote access management
- User account management:  • Strong passwords
  • User accounts and user groups
  • Detailed group permissions
- Security event logging and monitoring
- Account lockout
- Retrievalable access logs for auditing
- All system components digitally signed
- Continuous file monitoring for system integrity
- DNP3 secure authentication V2 and V5

For Eaton’s product information, call 1-877-834-0009
or visit: Eaton.com/smartgrid