Network Management Cards

While PowerShield UPSs do their job of holding up critical electronic equipment, behind the scenes, PowerShield proprietary software and management cards are there to manage and record critical power events, so that managers can be aware and informed of problems in real time. The Communications cards and devices, together with the software solutions allow for automatic graceful shutdown of programs and devices in the event power outages last longer than their nominated time.

SNMP Card

The **SNMP** (Simple Network Management Protocol) card allows the UPS to be directly connected to the network, without the need of a local computer. Furthermore, the SNMP card contains an integrated web server CPU, allowing the IT Manager to view and control the UPS and power events with any standard internet browser. This card is easily configured for virtual machine environments such as VMware and HyperV.

PSSNMPv4

PSEMD

The **PowerShield Environmental Monitoring Device** (PSEMD) is a PSSNMPV4 accessory suited for monitoring temperature and humidity. Email alerts and or system shutdown can be initiated if the user defined thresholds are exceeded. It offers two additional dry contact inputs for sensors such as smoke detectors and tamper switches.
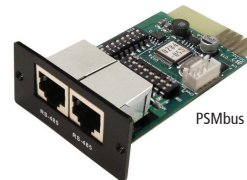
PSEMD

Relay Card PSAS400T (Terminal Strip) or PSAS400D (D-type connector)

The **Relay Card** (PSAS400) provides VFC (Volt Free Contact) relays that change state upon UPS events. This type of card is often used when current loop communications are required for devices such as BMS (Building Management Systems), Access Control Alarm Panels or Industrial PLCs. User selectable normally open (default) or normally closed contacts.

PSAS400T   PSAS400D

Modbus Card

The **PowerShield Modbus Card** (PSMbus) facilitates UPS communication with industrial and building management systems using the Modbus RTU Protocol. PSMbus card provides real time monitoring and control of multiple UPS's via the RS485 communications port.

PSMbus

External Comms Box

The PowerShield external Comms Box (PSECB) allows two comms cards to be operational, whilst using the UPS intelligent slot and PSECB over UPS serial port simultaneously. Includes a 240Vac / 12Vdc power pack.
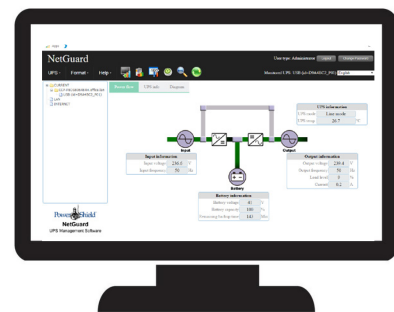
Optional Accessory
PowerShield External Comms Box
(PSSNMPv4, PSAS400, PSMbus)

PSECB

Power Shield Software - NetGuard®

NetGuard® is a sophisticated UPS management software application which is perfect for the SOHO user, right up to larger enterprises. NetGuard® can monitor and manage a UPS over the USB interface or serial Communications port. NetGuard® prevents data loss by safely shutting down computer systems during a prolonged outage. It also stores event history and can perform scheduled shutdowns of the UPS.
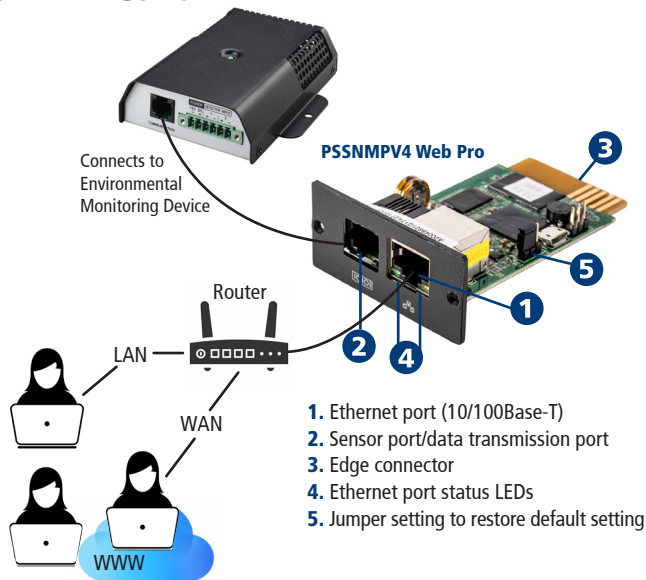
NetGuard® supports Windows, Linux and Mac.

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PowerShield®

SNMP Card

PSSNMPV4 Web Pro

Connects to Environmental Monitoring Device

Router

LAN

WAN

WWW

1. Ethernet port (10/100Base-T)
2. Sensor port/data transmission port
3. Edge connector
4. Ethernet port status LEDs
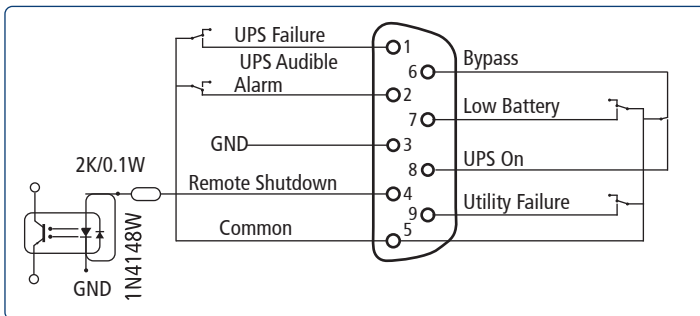5. Jumper setting to restore default setting

- Monitoring and flexible configuration settings accessed via Web Browser.
- PSSNMPv4 MIB file freely available for third party SCADA monitoring systems.
- Simultaneously monitor and manage multiple SNMP cards with PowerShield SNMP Multi View
- Automatically detects and exchange 10M/100M Fast Ethernet.
- Supports DHCP server assigned IP address or static IP address settings
- Supports wake-on-LAN function.
- Supported protocols: TCP/IP, UDP, SNMP V1/V2C/V3, SMTP, SNTP, HTTP, HTTPS, SSL, SSH, IPV4/IPV6, DHCP, AES-128 CBC data encryption.
- Operating Systems are shut down by PSSNMPv4 with Shutdown Wizard, or by PSSNMPv4 alone in SSH Client supported Operating Systems.
- Event notifications via email or Trap.
- 128MB flash memory with 32MB data and 32MB event logs. More than 200,000 threads each, including UPS warnings, faults and EMD warnings, operation data logs from web users or SNMP MultiView users. All data stored safely without loss even when power failure occurs.
- Supports daily reports for event log and data log.
- Scheduled UPS on/off and battery test.
- Supports EMD monitoring of temperature and humidity.
- Equipped with real-time clock to record log with time and date and will continue running up to 7 days without power connected.
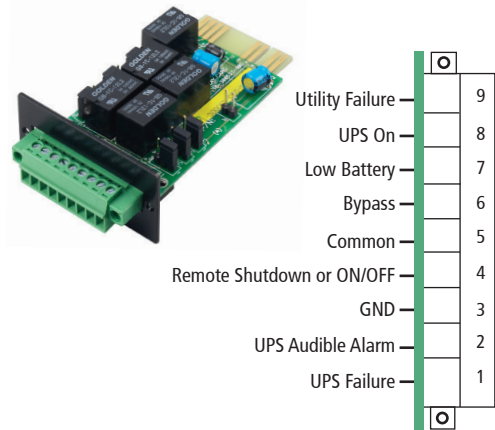- MODBUS TCP Server.

Supports Supervisory Control & Data Acquisition (SCADA) monitoring systems
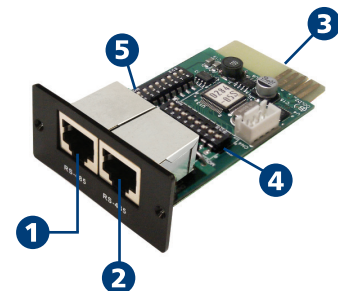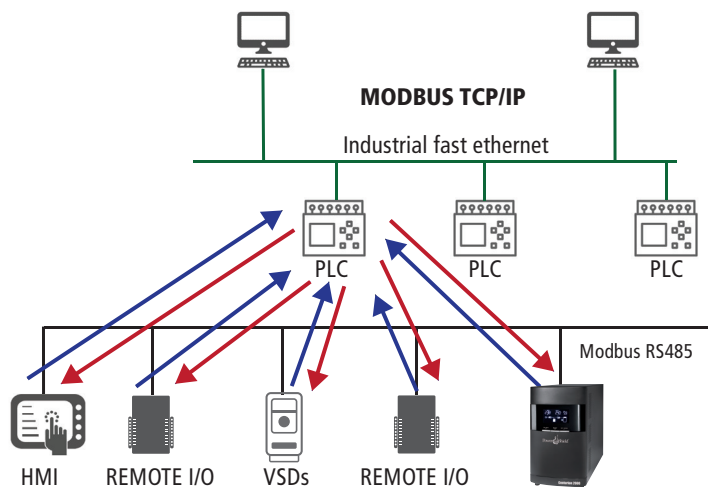
Relay Card

Internal Circuit of DB-9 Port

2K/0.1W

1N4148W

GND

UPS Failure
UPS Audible Alarm
GND
Remote Shutdown
Common

1
6 Bypass
2
7 Low Battery
3
8 UPS On
4
9 Utility Failure
5

RS-232 Port

Utility Failure — 9
UPS On — 8
Low Battery — 7
Bypass — 6
Common — 5
Remote Shutdown or ON/OFF — 4
GND — 3
UPS Audible Alarm — 2
UPS Failure — 1

9-Pin Port

Modbus Card

MODBUS TCP/IP

Industrial fast ethernet

PLC   PLC   PLC

Modbus RS485

HMI   REMOTE I/O   VSDs   REMOTE I/O

1. RS-485 port
2. RS-485/RS-232 port
3. Edge connector
4. Address switch
5. Communication setting

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PowerShield®