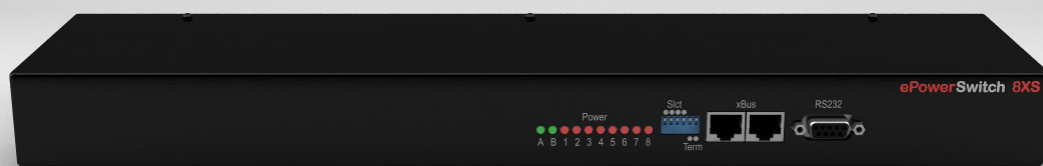# Datasheet

**Neol**
IT-Solutions

# ePowerSwitch 8XS

The ePowerSwitch 8XS is an expansion device for the ePowerSwitch Master series or the VizioGuard system. Direct control and configuration can be done optionally by using a KVM switch. With this device the redundant power supply of a infrastructure or the expansion of up to 136 power outlets is possible.

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# Description

The ePowerSwitch 8XS offers numerous expansion options for all ePowerSwitch master devices and the VizioGuard system. A total of 8 IEC320 power outlets are available which can be switched individually and as a group.

The xBus connection (standard RJ45) ensures the extension (ePowerSwitch 8XS, ePowerSwitch 1XS, etc.) of the system up to 136 IEC320 power outlets. With the DIP switch on the front easy configuration and termination of a cascade is made possible.

The device and the power outlets are operated by a ePowerSwitch Master or through a KVM switch.



### Rear connection features

❯ 2 IEC320 inputs
❯ 8 IEC320 outputs

### Front connection features

❯ Status-LED for all ports
❯ DIP switch for configuration and termination
❯ RS232 connection
❯ xBus connection

## Power Distribution

Each network switch can be switched on/off and restarted via IP or RS232 interface. This can be done by the web interface, a KVM switch, SNMP, or any serial interface. They can also be switched single or as individually created group of outlets – including connected expansion units. The sequential on and off switching of each outlet prevents resulting peak loads within the IT environment.

The power outlets are equipped with extremely robust HiAmp relay for high inrush currents. Individual delays (1-255 seconds when you next switch, 1-3600 seconds when restarting) can be configured for the switching process.

## Monitoring

### Device monitoring

The monitoring of connected devices is realized through the use of a ePowerSwitch Master. It can monitor up to 40 IP addresses with ping or scan commands and send a message (SNMP trap, e-mail, syslog) in case of a crash automatically. If the monitored IP devices are powered by the ePowerSwitch they can be automatically restarted. The combination of the Neol ePowerSwitch and VizioGuard products is possible.

Using the ePowerSwitch 8XS optimized solutions for power management of servers with redundant power supplies are possible. The sketch on the right shows the environment monitoring system VizioGuard with 2 connected ePowerSwitch 8XS via xBus. A total of 8 servers are redundantly powered.

### Environmental monitoring

The ePowerSwitch 8XS mainly allows the cascading of power outlets as a Satellite system. Up to 4 sensors and detectors can be connected using standard CAT cable, if it is connected to a master device. The transmission of signals is fully digital and the maximum range is up to 200m. The use of an existing cable infrastructure is easily assured. The inputs can be used in definable rules to trigger automatically any appropriate emergency actions.

Sensors and detectors can be flexibly combined and placed at any desired location in the surveillance area. For example, the optimization of a larger demilitarized zone (eg. hotspots in the air-conditioned

area) is possible with only a little effort.

# Management

The management and control of the device using a connected Master system is quite simple through the web browser. Moreover, it is possible to send switching commands via a connected KVM switch or a terminal console.

### Authentication

All current ePowerSwitch devices use a nonce (cryptographic nonce) and a hash function for authentication so the access can not be reconstructed or manipulated. To support fully encrypted transmission of data corresponding devices are available (eg. ePowerSwitch 8XM or VizioGuard).

### User accounts

The administrator can create up to 40 user accounts with different rights via the web interface. Access to the webserver is protected by 32-character user names and passwords. In addition, up to 40 users may simultaneously access the ePowerSwitch and all connected xBus peripherals.

### Grouping of power outlets

The grouping of power outlets allows a server with redundant power supplies or multiple devices to be turned on/off with a command sent through a web browser or by SNMP. With the ePowerSwitch 8XS it is possible to create any groups. Connected expansion devices (for example, the ePowerSwitch 1XS) are captured and managed too. The number of power outlets within the group is arbitrary.

### Programmable rules

Up to 32 rules can be configured to monitor analog values and digital inputs. Pre-programmed actions will be triggered on alarm state which will switch eg. relay or sockets. Optional e-mails, SNMP traps or syslog messages can be sent.

### Timer and scheduler

The device offers the possibility to automatically operate the power outlets by a timer and/or a scheduler function. Individual power poweroutlets but also groups will be turned on/off at defined times. It is also possible to automatically send e-mail, SNMP traps and syslog messages with the scheduler. By using a Internet connection the option to trigger an action on remote ePowerSwitch devices is given.

### Designations

Up to 32 characters long names can be set to all devices and sensors connected. This unique identification simplifies the programming of rules, groups and the associated actions.

### Online help

An intuitive interface and context-sensitive online help allow administrators to quickly enable various and powerful features of the system. Detailed instructions and explanations are listed in the operating instructions.

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**ePower**Switch **8XS**                                                              Page 3 of 6

# Features at a glance

❯ 2 separate 10A current inputs
❯ 8 power outlets with 10A each
❯ Cascadable up to 128 power outlets
❯ Control of the power outlets takes place using a ePowerSwitch Master or the VizioGuard system
❯ Serial interface and much more with ASCII protocol for controlling the power switch with a KVM switch, server console, PC and more
❯ Special high-current relay (120A / 20ms).
❯ Programmable time intervals for a restart
❯ Customizable sequences for power circuit
❯ Firmware update over serial port
❯ Only 1U of rack space consumed

# Supported peripherals

Up to 4 peripheral devices can be connected to the ePowerSwitch 8XS directly.

**Sensors**
❯ Temperature sensor (T-Sensor)
❯ Temperature  and humidity sensor (TRH-Sensor)
❯ Temperature and ambient light sensor (TL-Sensor)
❯ Temperature and proximity sensor (TP-Sensor)
❯ Temperature sensor tiny (T-Sensor Tiny)

**Detectors**
❯ Optical liquid detector (LIQ DET)
❯ Optical smoke detector (SMOKE DET)
❯ Movement detector (MOVE DET)
❯ Magnetic reed contact (MAGNETIC CON)

**Interfaces**
❯ Dual 0-10V with temperature sensor (0-10 T-Sensor)
❯ Dual 4-20mA with temperature sensor (4-20 T-Sensor)
❯ PT100 for platinum measuring resistor (PT100 T-Sensor)

**Expansion & Cascade**
❯ 1 power outlet (ePowerSwitch 1XS)
❯ 8 power outlets (ePowerSwitch 8XS)
❯ 8 power outlets with 2 x 16A inputs and voltage monitoring (8XS /32)

**I/O-Modules**
❯ 8-way terminal with dry input contacts (Digital input module)
❯ 8-way terminal with dry output contacts (Digital output module)
❯ Push button with dual action (Push button)
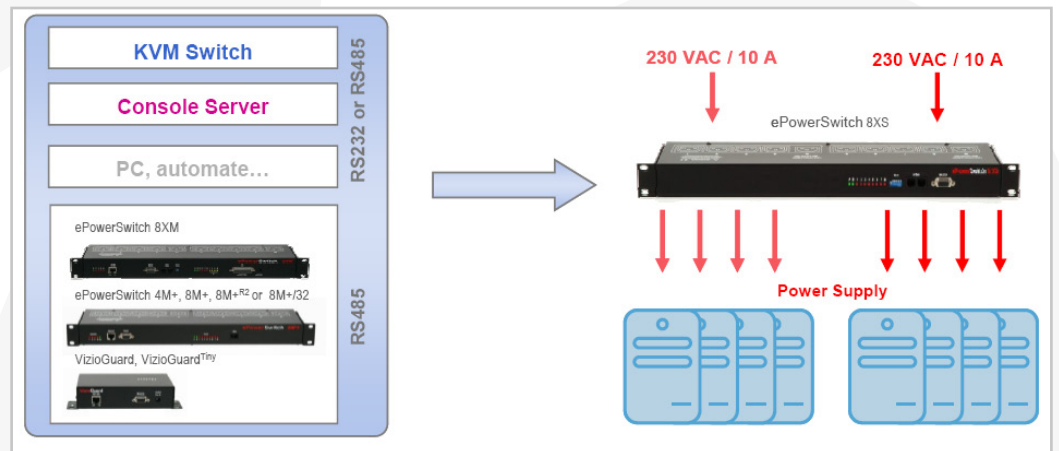
**Current probe**
❯ For 1 output (CP IEC)

# Technical data

| Power input | 2 x IEC320 EN60320 C14 (M) 10A<br>Nominal voltage: 230V / 50Hz<br>Max. current: 10A |
|---|---|
| Power output | 8 x IEC320 EN60320 C13 (F)<br>Nominal voltage: 230V / 50Hz<br>Max. current/outlet: 10A |
| Terminal connection | RS232, SUB D9 female |
| Connection Bus | RS485, RJ45 |
| LED | Power, Sockets |
| Operating temperature | 0°C to +40°C |
| Operating humidity | 10% to 80% |
| Dimensions (W x H x D) | 437 x 42x107 |
| Weight | 2 kg |
| Approvals | CE, EN55022 & EN55024, RoHS |
| Guarantee | 2 years repair/replace |

# Package contents

❯ 1 EPS 8XS-XX (where XX is the specification of the power plug)
❯ 2 power cords, 1,80 meters IEC-320-C13 / EU, CH or UK standard -
   EU = SCHUKO/Europe, CH = Swiss, UK = United Kingdom
❯ 1 Network cable
❯ 1 serial cable (SUB-D9 male/female) 1,80 meters
❯ 1 CD-ROM with english manual
❯ 1 quickstart guide

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# Application example



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