

# Powershield<sup>3</sup>

## Communication Software

PowerShield<sup>3</sup> provides efficient, user-friendly UPS management using bar chart displays to show major operational information such as the input voltage, UPS load % and batteries charge %. The software also provides detailed information on fault conditions and UPS operating characteristics. PowerShield<sup>3</sup> has been developed with a client/server architecture that makes it flexible and easy to use, and provides multi-lingual and on-line support.

PowerShield<sup>3</sup> can be downloaded free of charge from [www.riello-ups.com](http://www.riello-ups.com)



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### GRAPHIC MONITORING OF UPS AND ENVIRONMENTAL SENSORS STATUS

PowerShield<sup>3</sup> is a simple but powerful RIELLO UPS management tool. There are various graphic versions for all the operating systems.

### DETAILED UPS PARAMETER DISPLAY AND ENVIRONMENTAL SENSORS

PowerShield<sup>3</sup> provides all the information required for first level diagnostics.

### EVENTS LOG AND GRAPHICAL DISPLAY

All changes in UPS operating status are logged and displayed in a graphical format from which the user can monitor trends in the mains electrical parameters monitored.

### PROGRAMMING OF UPS PARAMETERS

The user can select several options remotely: turn the UPS on or off, restart after a power loss and instigate a battery test.

### GRAPHIC MONITORING OF UPS STATUS VERSION FOR MAC OS X

RIELLO UPS PowerShield<sup>3</sup> software is the only UPS control and shut-down software running under Macintosh with a client-server cross platform architecture. It allows integration in TCP/IP networks with Windows, Novell, IBM OS/2 and the most widely used UNIX operating systems. PowerShield<sup>3</sup> supports the Netman Plus series of network agents and provides multi-language support.

### BLOCK AND FUNCTIONAL DIAGRAMS

PowerShield<sup>3</sup> also displays the UPS in block format providing the user with information regarding operating status.

### NOTIFICATION OF ALARMS VIA E-MAIL, SMS, FAX AND VOICE

PowerShield<sup>3</sup> can be configured to forward alarm messages automatically via e-mail, SMS, fax and voice.

## Characteristics

- Sequential and priority-based shutdown: PowerShield<sup>3</sup> provides unattended shut-down of single and networked PCs, saving any active work and the most widely used applications Windows. Users can define their own shutdown procedures and establish the order in which critical computers (such as servers) are to be powered down
- Multi-platform compatibility: PowerShield<sup>3</sup> uses the TCP/IP communications protocol to achieve standardised management and monitoring across the widest possible range of platforms. This makes it possible to monitor computers with different operating systems from a single console, for example monitoring a UNIX server from a PC with Windows and also connecting to UPS located in different geographical areas using dedicated networks (intranets) or the Internet
- Event scheduling: PowerShield<sup>3</sup> users can program their own shutdown procedures, detailing power-off and power-up scenarios to increase system safety and, equally important, power economy
- Messages management: PowerShield<sup>3</sup> keeps users constantly informed about the status of their local and network UPS, and environmental sensors. A list can be defined of users who should receive e-mail messages, faxes and SMS when faults or sudden mains power supply failures occur
- Integrated SNMP agent: PowerShield<sup>3</sup> features an integrated SNMP agent for UPS management which can send all the information required and generate traps using the RFC 1628 MIB standard and environmental sensors. This

feature makes it possible to manage the UPS in compatible SNMP management stations such as HP Open View, Novell Managewise and IBM NetView

- Wap server integrated: PowerShield<sup>3</sup> allows the user to monitor a UPS through WAP mobile phone
- Security, easy to use and connect, communication is password protected to ensure UPS system security. Using the new discovery/browsing function, all the RIELLO UPS connected to a protected computer or LAN can be displayed in a list format. In the absence of a LAN connection, support is provided for modem-based communication.

## Operating systems supported

- Windows 2000, 2003 Server, XP, Vista, 2008 Server, 7, on X86, X86\_64 and IA64 processors
- Linux on X86, X86\_64 and IA64 processors
- Novell Netware 3.x, 4.x, 5.x, 6
- Mac OS X
- The most common UNIX operating systems such as: IBM AIX, HP, SUN Solaris INTEL and SPARC, SCO Unixware and Open Server, Silicon Graphics IRIX, Compaq Tru64 UNIX and DEC UNIX, Open BSD UNIX and FreeBSD UNIX, NCR UNIX
- HP OPEN VMS
- VMWare ESX, VSPHERE

# PowerNETGuard

## Supervision software

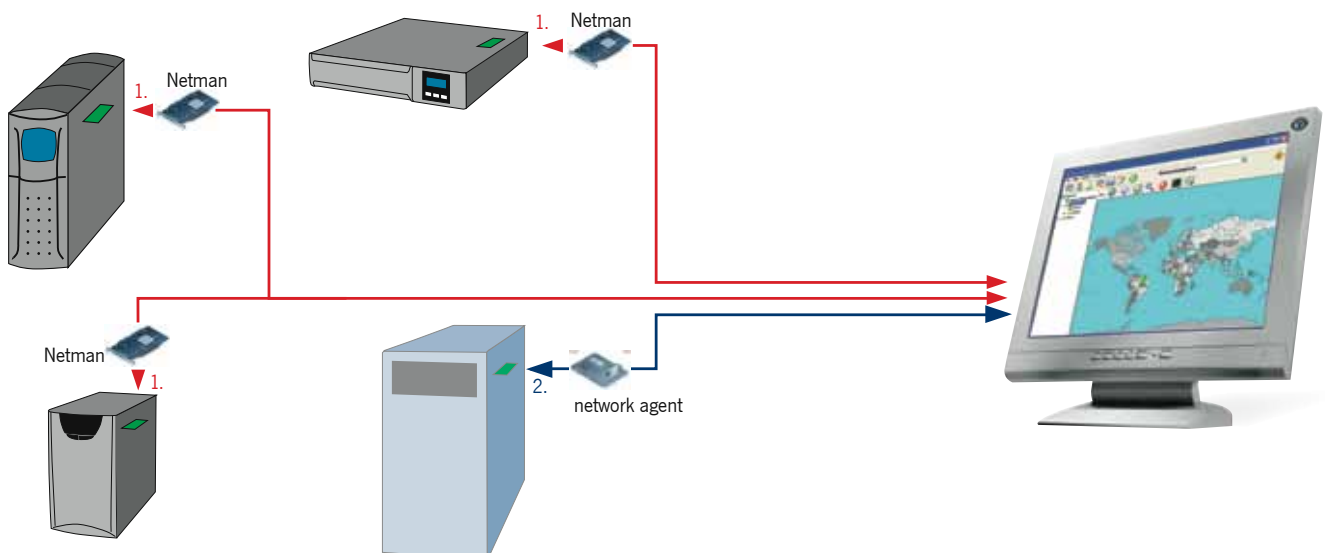
PowerNETGuard software centralises UPS management using network interface (SNMP) communications. It is ideal for Data Centre managers and medium to large sized networks. PowerNETGuard uses the RFC1628 standard Management Information Base (MIB) and ensures standardised UPS management wherever they are located.

### Characteristics

- Centralised control of remote UPS via Ethernet with SNMP protocol
- Multiple-level display of geographical areas, building plans, maps, etc.
- Multi-user access with various levels of security
- Compatible with Netman Plus and RFC1628 standard network interface (SNMP)
- Graphs of physical input and output values stored and backed up to file
- Alarm notification via e-mail and SMS
- Wap Server
- Operating systems supported: Windows (98, ME, NT, 2000, 2003, XP and Vista), Linux, MacOSX, Solaris 8, 9 and 10 and Silicon Graphics IRIX



### Centralised control of remote UPS



Network agent

# NetMan 101 Plus



The NetMan Plus network agent allows UPS management across a LAN using any of the main network communication protocols - TCP/IP, HTTP and network interface (SNMP). NetMan Plus enabled UPS integrate easily into medium and large sized networks and provide reliable communications between the UPS and management systems employed.

## Characteristics

- Configured via TELNET or a serial terminal
- Compatible with PowerShield<sup>3</sup> and PowerNETGuard control software
- Supports the network interface (SNMP) standard communication protocol with proprietary RFC 1628 and MIB
- SNMP with RFC 3433 to manage the environmental sensors
- Integrated Web server for browser-based display
- TeleNetGuard modem compatible
- Firmware upgradeable through the serial port
- E-mail sent through SMTP server

Network agent

# NetMan 102 Plus



The NetMan Plus network agent allows UPS management across a LAN using any of the main network communication protocols - TCP/IP, HTTP and network interface (SNMP). NetMan Plus enabled UPS integrate easily into medium and large sized networks and provide reliable communications between the UPS and management systems employed.

## Characteristics

- Configured via TELNET or a serial terminal
- Compatible with PowerShield<sup>3</sup> and PowerNETGuard control software
- Supports the network interface (SNMP) standard communication protocol with proprietary RFC 1628 and MIB
- SNMP with RFC 3433 to manage the environmental sensors
- Integrated Web server for browser-based display
- TeleNetGuard modem compatible
- Firmware upgradeable through the serial port
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# Environmental Sensors

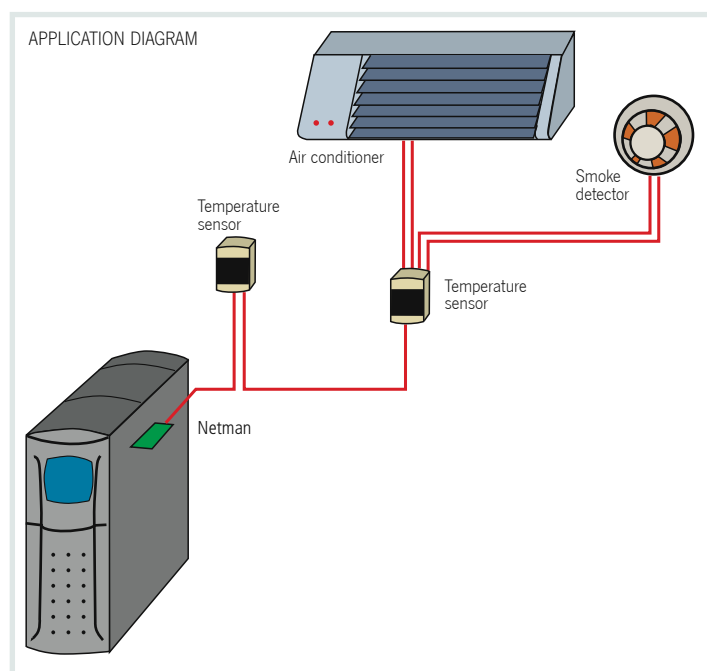
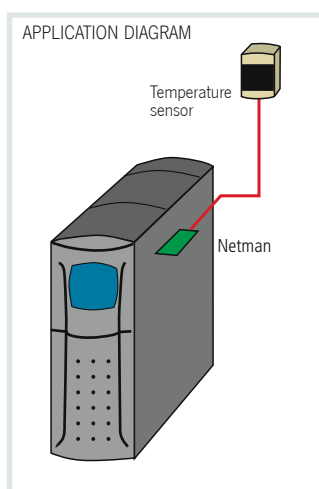


The Netman environmental sensors monitor and record environmental conditions as well as activities in protected areas and at the premises where the UPS is installed. The sensors provide extensive management and control, triggering cooling fans and locks in response to changes in temperature and humidity. Remote monitoring and control can be provided via the internet, SNMP and the Riello PowerShield<sup>3</sup> software.

NetMan Plus can support up to 6 separate sensors. The environmental sensors are easy to install and do not need a separate external power supply.

The following sensors are available:

- Sensor for temperature: -55 +125 °C
- Sensor for temperature: -55 +125 °C and humidity: 0- 100%
- Sensor for temperature: -55 +125 °C and digital I/O:  
0-12Vdc. In, 1A max Out 48Vdc



# Protocol Converter Multicom 301/302



The MultiCOM 301/302 protocol converter may be used to monitor the UPS using the MODBUS/JBUS protocol on RS232 or RS485 serial lines. It can also manage a second independent RS232 serial line that can be used to connect to other devices such as the Netman 101 or a PC using PowerShield<sup>3</sup> software.

## Characteristics

- Port configuration for MODBUS/JBUS as RS232 or RS485
- Management of two independent serial lines
- Suitable for Building Management System (BMS) integration
- LED communication flow indicators
- Firmware upgradeable through the serial port

## Serial link duplexer

# Multicom 351/352



The MultiCOM 351/352 is a serial duplexer that allows two devices to be connected to a single serial port on a UPS. It can be used where numerous serial connections and multiple UPS polling are required, and is ideal for LAN networks with a firewall.

### Characteristics

- Cascading configuration giving a maximum of 4 serial communication ports
- LED communication flow indicators
- Firmware upgradeable through the serial port.

## Serial / USB port

# Multicom 362



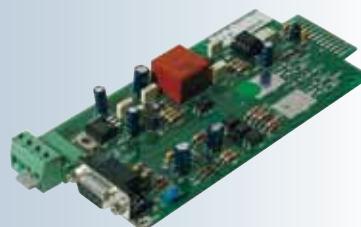
MultiCOM 362 provides a UPS with an additional RS232 serial interface or USB port. The USB port allows the UPS to communicate with Apple Macintosh computers as well as Windows and Linux operating systems.

### Characteristics

- Compatible with USB 1 or 2
- Compatible with PowerShield<sup>3</sup>

## Serial / EPO port

# Multicom 372



MultiCOM 372 provides a UPS with an additional RS232 serial interface port. The card has Emergency Power Off (EPO) and Remote Shut Down (RSD) inputs with terminal connections.

### Characteristics

- EPO and UPS shutdown interface
- 12Vdc 80mA contact option

Contacts / EPO board

# Multicom 382



MultiCOM 382 provides a set of relay contacts to provide UPS alarm and status indication.

The contacts are connected through terminal connections. Signal contacts include Emergency Power Off (EPO), Remote Shut Down (RSD), On Battery, On Bypass, Alarm and Low battery. The contacts are change over or normally open.

## Characteristics

- Max. 3A current at 250Vac
- Signal contact customisation

Protocol converter

# Multi I/O



Multi I/O has configurable input and output signal contacts to allow UPS integration with control systems. It can be used to connect two devices to a single UPS serial communication port. It can also communicate using the MODBUS/JBUS protocol on RS485 lines.

## Characteristics

- 8 analog/digital inputs
- 8 relay outputs to monitor UPS and mains status
- It can control two independent RS232/RS485 serial lines to monitor the UPS and its operating states using the MODBUS/JBUS protocol
- Firmware upgradeable through the serial port

Expansion card

# I/O



The I/O expansion card, for the Master Plus range, is equipped with:

- 6 outputs with voltage-free NC/NO contacts (250V/5A), electrically isolated from each other and from other circuits
- 2 self-powered inputs

Each output or input can be configured with different meanings, via the relative menu.

## Protocol converter

# Multicom 401



The Multicom 401 is an accessory with which you can connect a UPS to a Profibus DP network. With this device management and monitoring of the UPS can be integrated in a control system based on one of the field buses most widely used in industry for communication between control/automation systems and distributed I/O.

### Characteristics

- PROFIBUS DP-V1 Protocol
- Configurable address from 0 to 99
- Profidrive V2 PP05
- Configurable baud rate from 9.6 kBit/s to 12 MBit/s
- Led reporting the communication flow

## Communication Kit

# Kit AS400 / i-Series

The IBM AS/400 has a single-level memory management feature that makes it compulsory for the system to be shutdown in a controlled and orderly manner. Without UPS protection an AS/400 is not protected from mains failures. A momentary loss of power can cause hardware damage, data corruption and a lengthy reboot period.

**The RIELLO UPS AS/400 interface kit allows a UPS to be connected to the AS/400 to initiate an orderly system shutdown on mains failure.**

### Characteristics

- Compatible with all AS/400 systems
- Supports all the RIELLO UPS ranges

## Remote Monitoring Panel

# Multi Panel



MultiPanel is a remote monitoring device that can provide a detailed UPS status overview in real time. It is compatible with all Riello UPS and can display values for UPS specific input and output supplies, and battery set measurements.

MultiPanel has a high-definition graphical display and can report in 7 languages: English, Italian, German, French, Spanish, Russian and Chinese. It has 3 independent serial ports, one of which allows for UPS monitoring via the MODBUS/JBUS protocol (on either an RS485 or RS232 serial line). The others can be used with devices such as the Netman 101 Plus or a PC running PowerShield<sup>3</sup> software.

### Characteristics

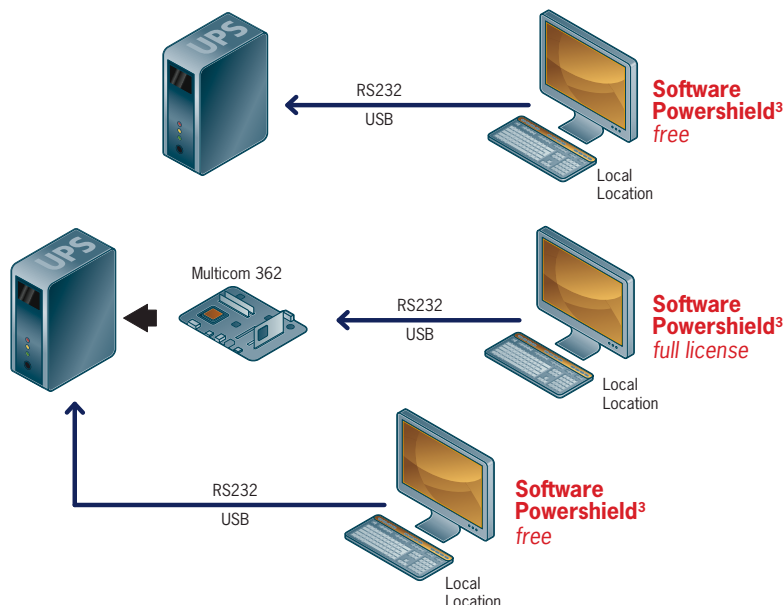
- Graphical high definition LCD panel
- Three independent serial connections
- Compatible with most BMS management programs
- Communications flow LED status indicator
- Serial port upgradeable firmware



# Connectivity: some solutions

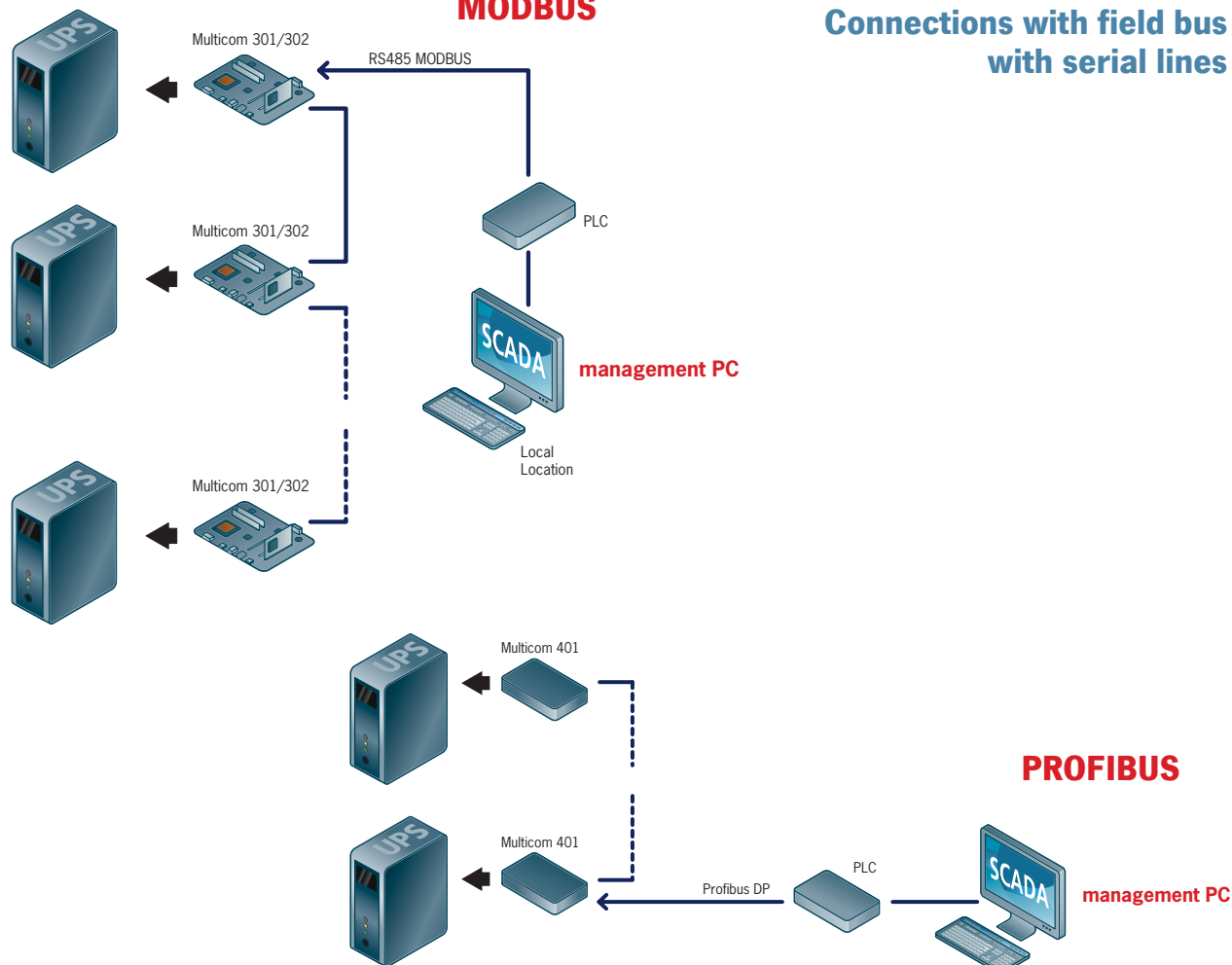
Connectivity: some solutions

## Point-to-point connections with serial lines



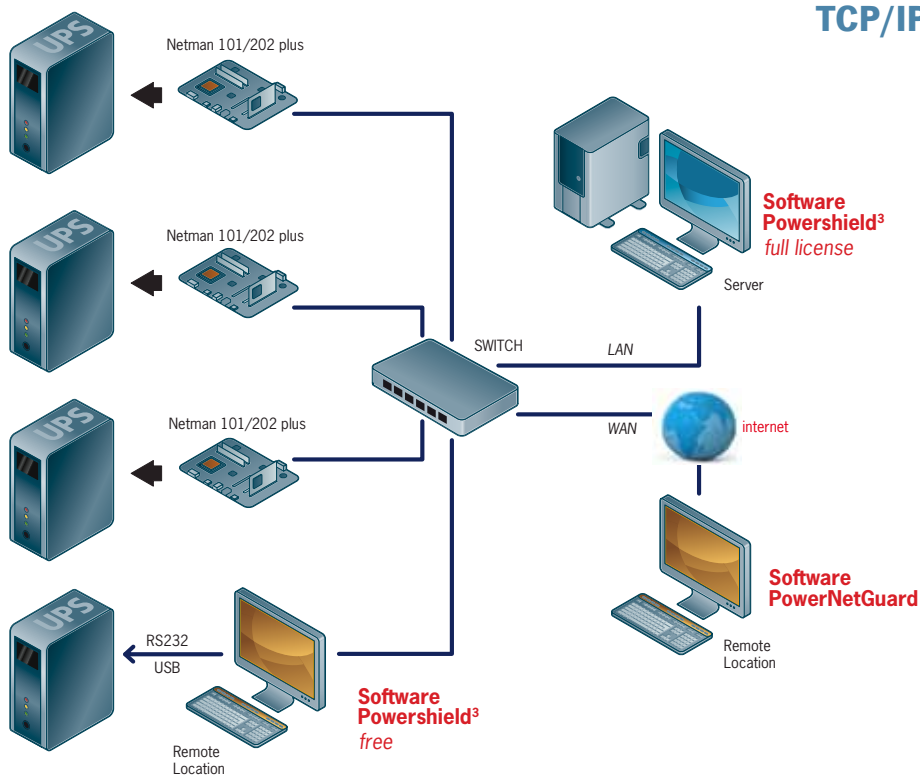
## MODBUS

## Connections with field bus with serial lines

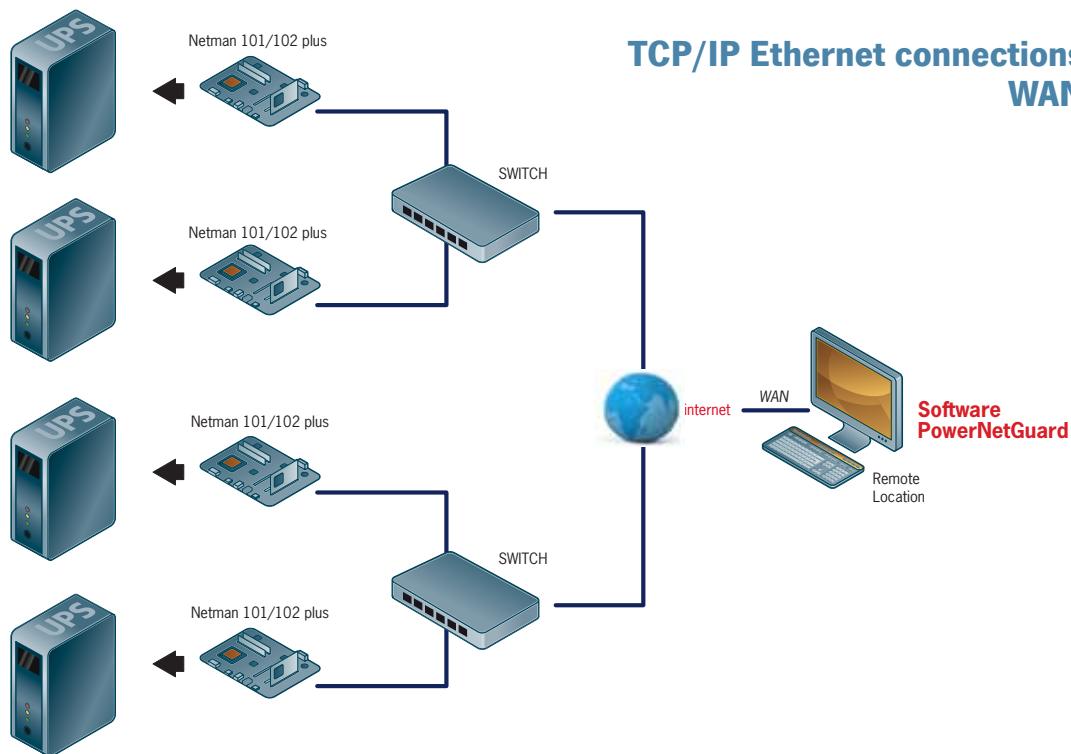




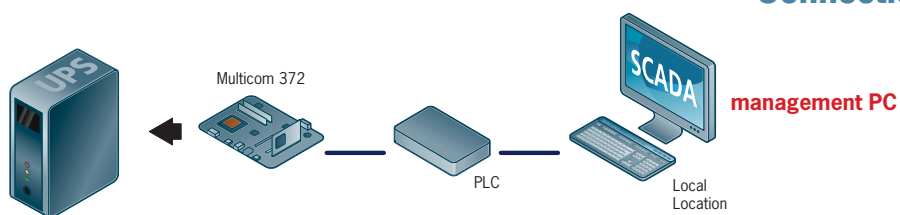
## TCP/IP Ethernet connections LAN/WAN



## TCP/IP Ethernet connections WAN




## Connection with PLC to contacts



# Compatibility table

## Software and Accessories





	Standard fittings						Software and optional accessories																
	USB Port	RS232 port	SLOT	UPS Modem Management	Microsoft Plug & Play	PowerShield <sup>3</sup>	NetMan 101 plus	NetMan 102 plus	MultiCOM 351	MultiCOM 352	MultiCOM 301	MultiCOM 302	MultiCOM 362	MultiCOM 372	MultiCOM 382	MultiCOM 401	Multi I/O	Expansion I/O	MultiCOM 401	AS/ 400 Kit	PowerNetGuard	TeleNetGuard	Multi Panel
IPLUG	1					•										•							
IDIALOG	1	1*				•										•							
DIALOG VISION	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•		•
PREMIUM PRO	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•		•
PREMIUM DUAL	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•		•
DIALOG DUAL	1	1	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
POWER DIALOG 3	1	1	1	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
MULTI DIALOG		2	1	•		•	•	•	•	•	•	•				•	•		•	•	•	•	•
MULTI PLUS	1	1	3	•		•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
MASTER PLUS / HIP		2	2	•		•	•	•	•	•	•	•				•	•	•	•	•	•	•	•