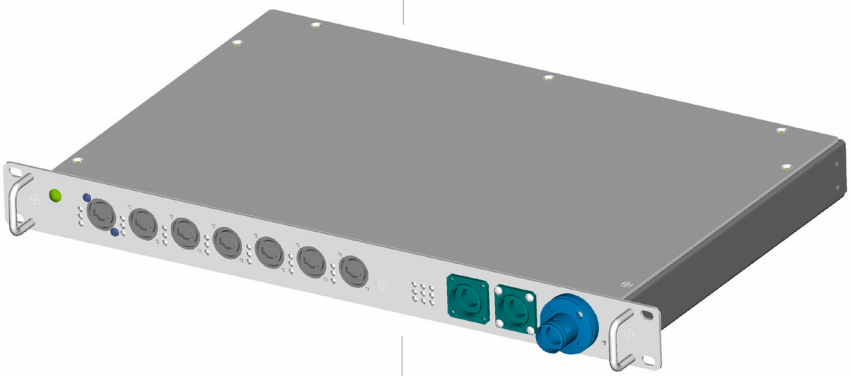
USER MANUAL

PRG Series 400™ Ethernet Switch

7-Port Model
10-Port Model



PRG

02.9801.0001 A

PRG Series 400™ Ethernet Switch User Manual
Version as of: March 28, 2007 | PRG part number: 02.9801.0001 A

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PRG Series 400™ Ethernet Switch User Manual

Introduction

About This Manual

This manual provides necessary information regarding product safety, installation, and operation for the following PRG equipment:

- PRG Series 400™ 10-Port Ethernet Switch (20.9801.0200)
- PRG Series 400™ 7-Port Ethernet Switch (20.9801.0200.07)

Familiarizing yourself with this information will help you get the most out of your PRG product.

WARNING: It is important to read ALL accompanying safety and installation instructions to avoid damage to the product and potential injury to yourself or others.

Additional Documentation

For more information on related equipment, refer to the following PRG manuals:

- PRG Series 400™ Power and Data Distribution System User Manual (02.9680.0001)
- PRG Series 400™ Power and Data Distribution System Service Manual (02.9680.0010)
- Virtuoso® Node User Manual (02.9669.0001)
- Virtuoso® Node Plus User Manual (02.9801.0301)

For more information regarding DMX512 systems, refer to the DMX512/1990 & AMX 192 Standards publication available from United States Institute for Theatre Technology, Inc. (USITT).

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Customer Service

Our comprehensive technical services department ensures you get the full benefit of being a PRG customer. Whether your needs are simple or complex, our full-time staff of experienced professionals are on-hand to provide support. For assistance, contact your nearest PRG office:

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For additional resources and documentation, please visit our website at: www.prg.com

Overview

10-Port Ethernet Switch

The PRG Series 400™ 10-Port Ethernet Switch provides a powerful and convenient interface between Virtuoso® or DMX512 control consoles and their control equipment. The 10-Port Ethernet Switch offers two types of connections: isolated copper Ethernet ports and fiber optic ports. The fiber optic ports provide the ability to send fast and reliable information up to 2 kilometers away without the need for repeaters using Virtuoso Fiber Optic Cable. The copper Ethernet connections offer the ability to combine standard copper connections with fiber optic transmissions. *Note*: Copper connections are limited to a maximum distance of 300 feet.

The 10-Port Ethernet Switch automatically determines the speed of each network connection based on the equipment connected to the switch and supports multiple connections with transmission and reception occurring simultaneously.

Features:

- Seven isolated copper Ethernet ports for input of 10Base-T and 100Base-TX standard signal (Neutrik® EtherCon® connectors).
- Three fiber optic Ethernet ports for transmission of 100Base-FX standard signal. Two ports allow use of the Virtuoso Fiber Optic Cable *input* connector and one port allows use of the Virtuoso® Fiber Optic Cable *output* connector.
- Automatic detection and configuration of input signal speed.
- Link, Transmission, and Reception status LEDs for all ports.
- Neutrik® PowerCon® connector for input AC supply.
- DC power status LED.
- Standard 1U 19" rack mount chassis.

Included Items

The following illustration shows all items included with this model:

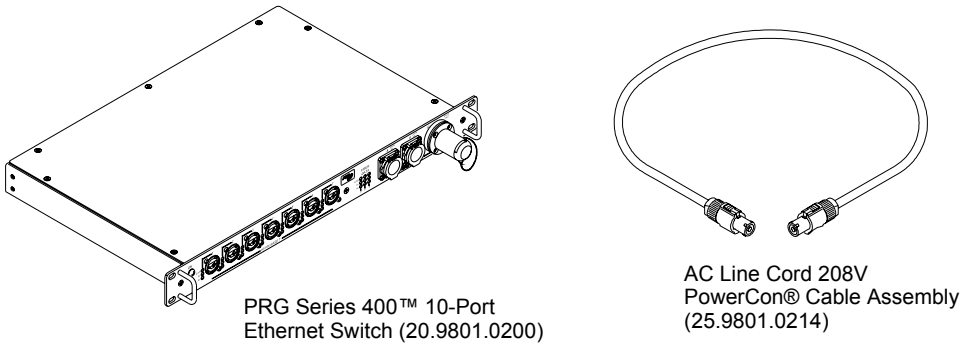


Figure 1: 10-Port Ethernet Switch Included Items

Controls and Indicators

The Series 400™ 10-Port Ethernet Switch contains the following connections and LED indicators.

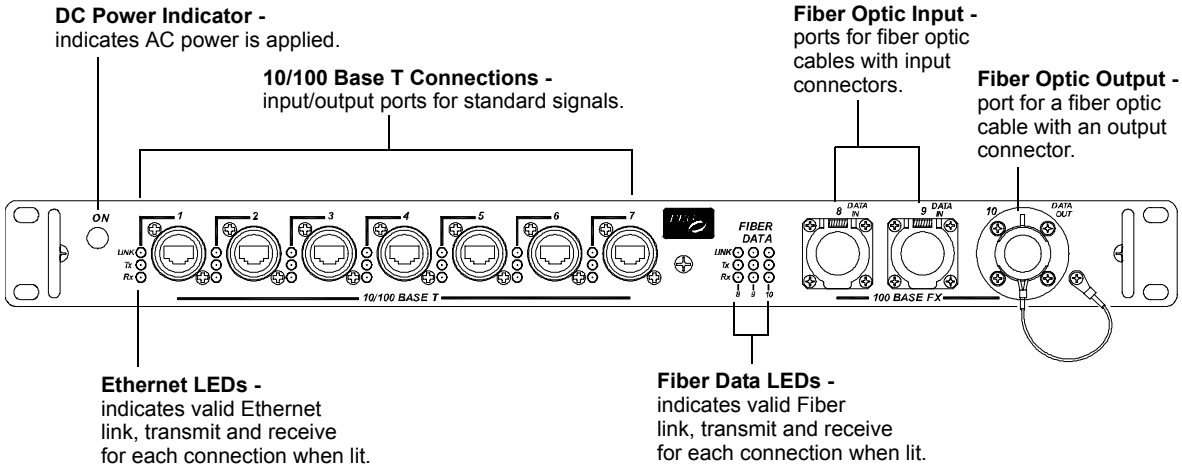


Figure 2: 10-Port Ethernet Switch Front Panel

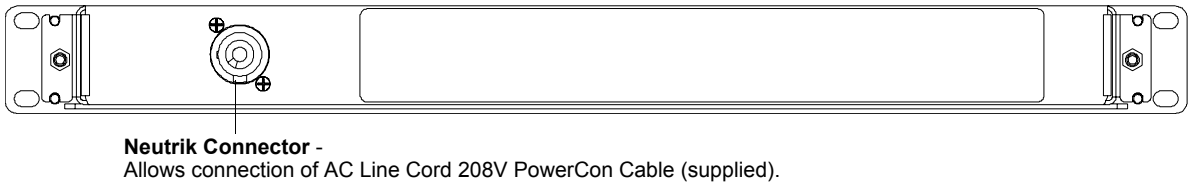


Figure 3: 10-Port Ethernet Switch Rear Panel

7-Port Ethernet Switch

The PRG Series 400™ 7-Port Ethernet Switch provides a powerful and convenient interface between Virtuoso® or DMX512 control consoles and their control equipment. The 7-Port Ethernet Switch provides seven isolated copper Ethernet ports. *Note*: Copper connections are limited to a maximum distance of 300 feet.

The 7-Port Ethernet Switch automatically determines the speed of each network connection based on the equipment connected to the switch and supports multiple connections with transmission and reception occurring simultaneously.

Features:

- Seven isolated copper Ethernet ports for input of 10Base-T and 100Base-TX standard signal (Neutrik® EtherCon® connectors).
- Automatic detection and configuration of input signal speed.
- Link, Transmission, and Reception status LEDs for all ports.
- Neutrik® PowerCon® connector for input AC supply.
- DC power status LED.
- Standard 1U 19" rack mount chassis.

Included Items

The following illustration shows all items included with this model:

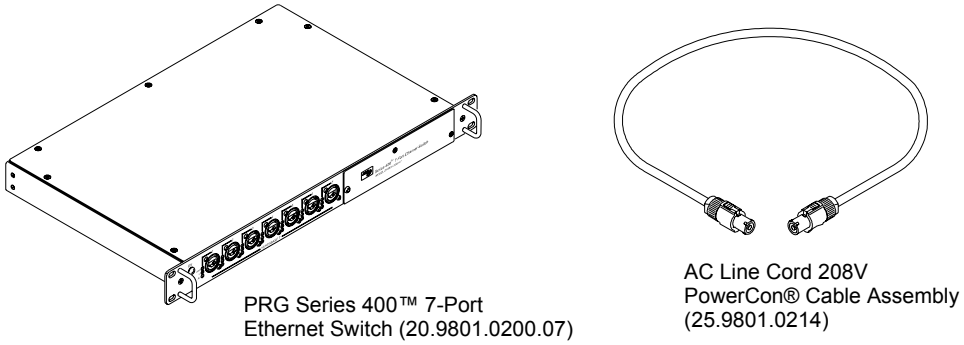


Figure 4: 7-Port Ethernet Switch Included Items

Controls and Indicators

The Series 400™ 7-Port Ethernet Switch contains the following connections and LED indicators.

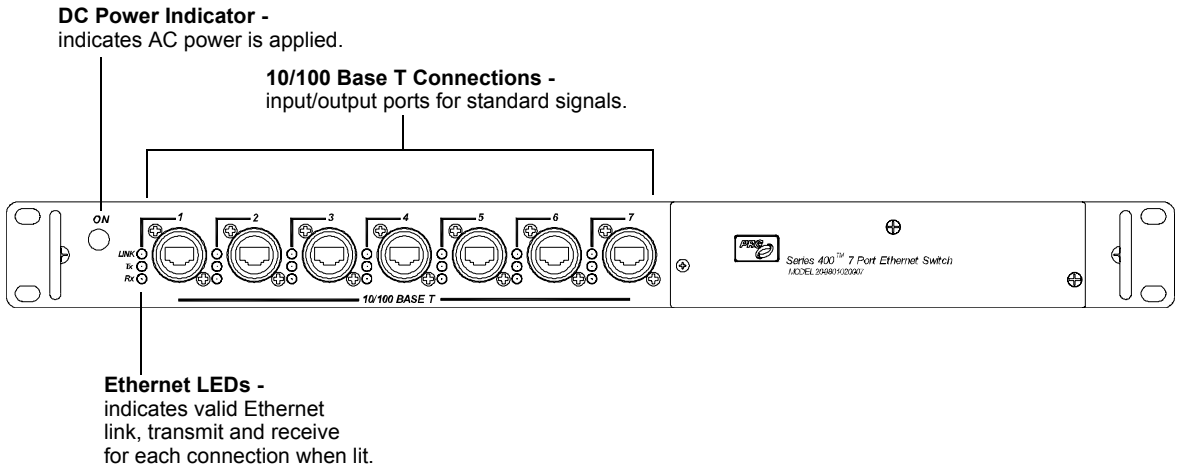


Figure 5: 7-Port Ethernet Switch Front Panel

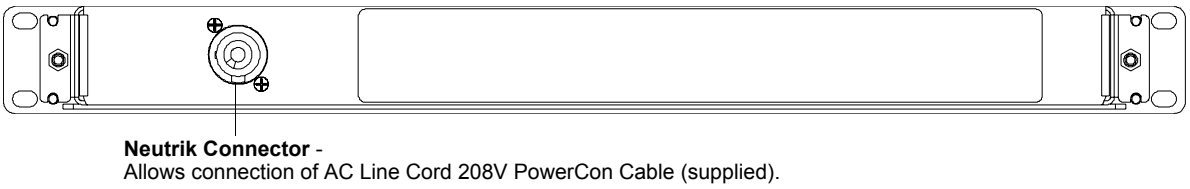


Figure 6: 7-Port Ethernet Switch Rear Panel

Installation

Installing Ethernet Switch

A Series 400™ Ethernet Switch can be used independently or installed directly in a Series 400 rack chassis, using any blank space above the LED Meter Module.

To install in Series 400 rack:

Step 1. Install Ethernet Switch as required in top portion of rack chassis (Figure 7).

Step 2. At Ethernet Switch rear panel, connect AC Line Cord 208V PowerCon® Cable (supplied) to Neutrik® connector.

Step 3. After power is applied, verify that ON indicator is lit.

Step 4. At front panel, connect data cables as required. Refer to "Connecting Ethernet Switch to System" on page 8.

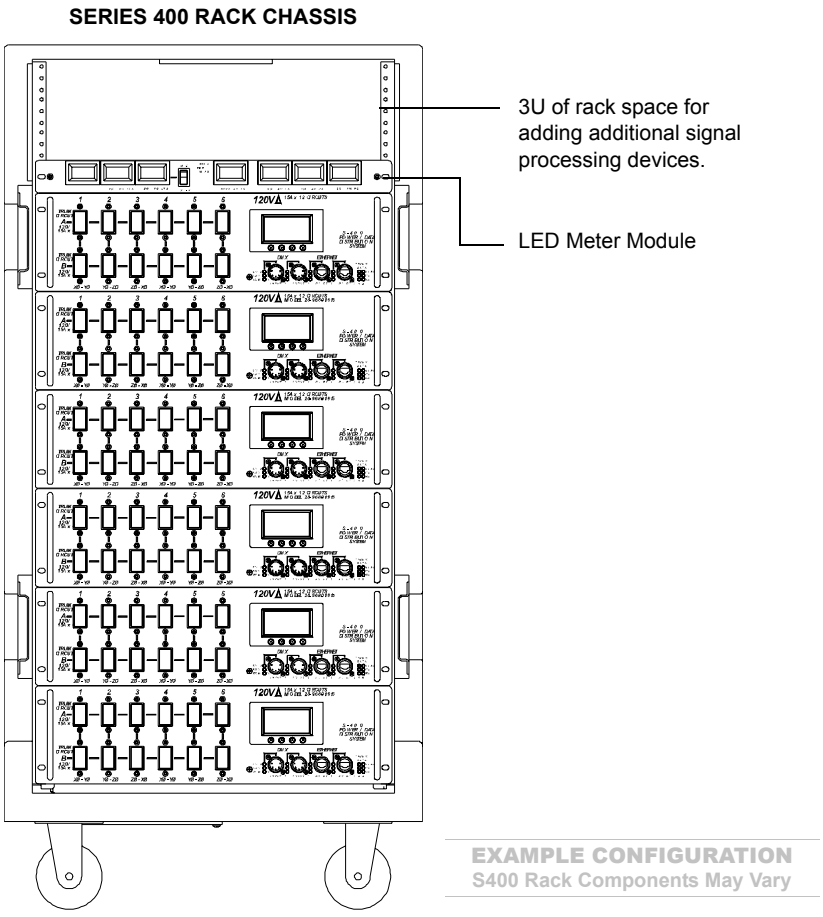


Figure 7: Series 400 Rack

Connecting Ethernet Switch to System

The Series 400™ 10-Port Ethernet Switch connects Ethernet devices using *both* CAT5e copper wire *and* armored fiber optic cable. Copper wire communication ports conform to 10/100Base-Tx standards and the fiber ports conform to 10/100Base-Fx standards. The Series 400™ 7-Port Ethernet Switch connects Ethernet devices using *only* CAT5e copper wire.

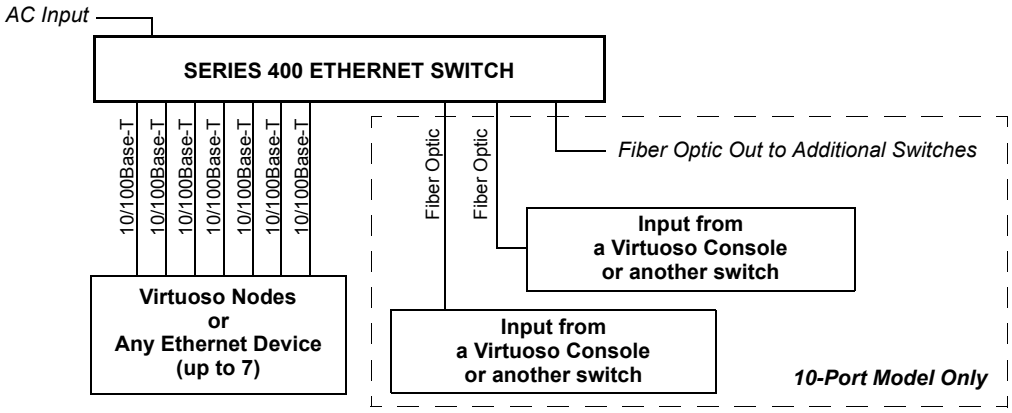
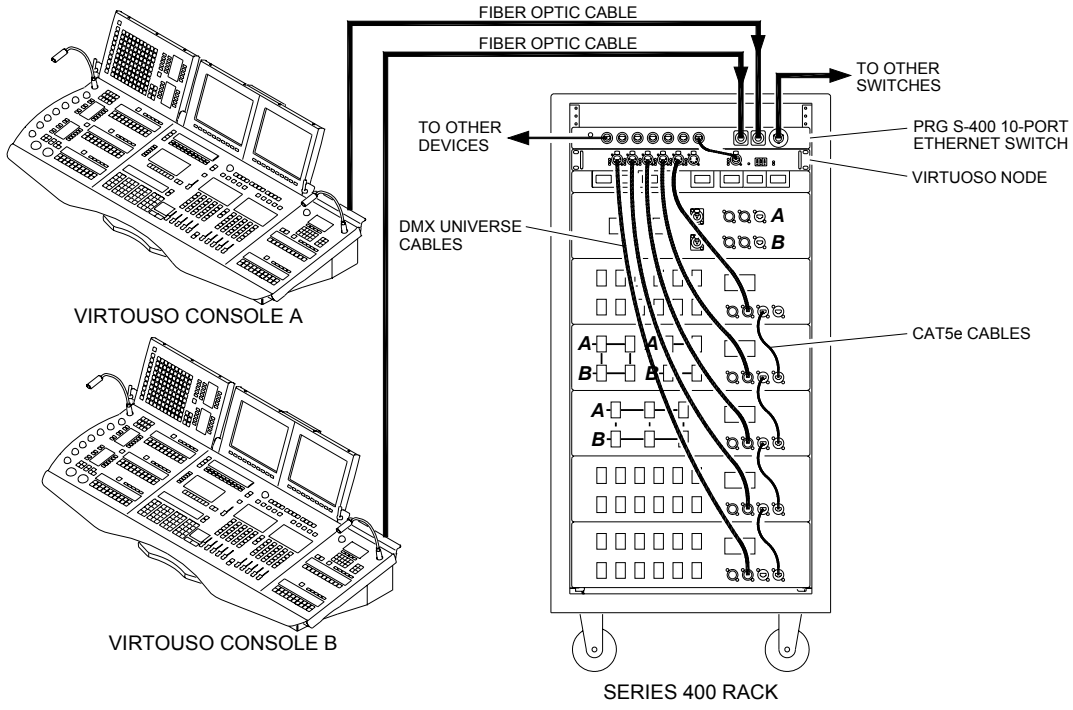


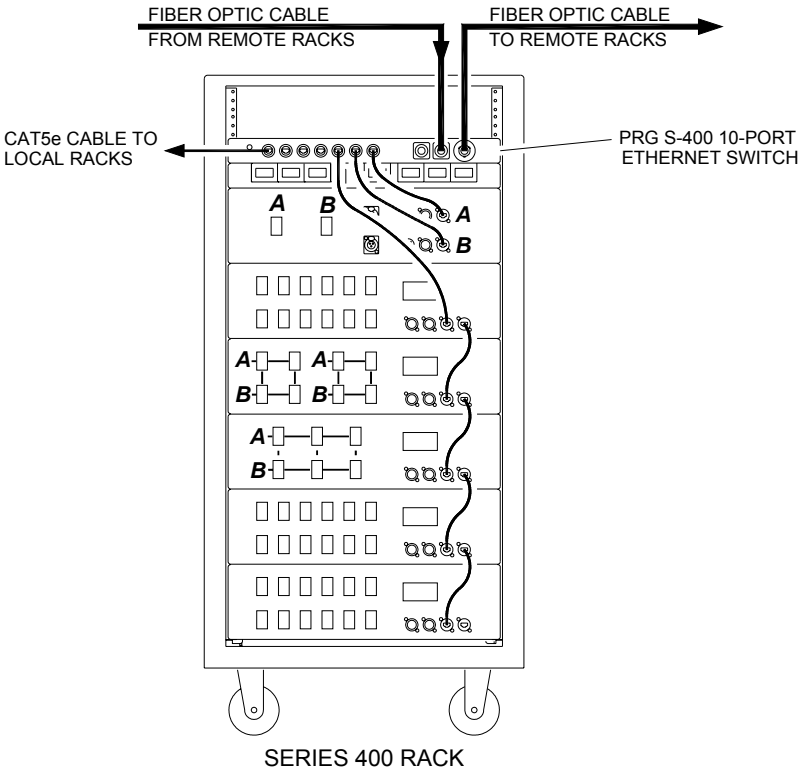
Figure 8: Device Connection Diagram

The following example system diagrams illustrate an Ethernet Switch being used with a Series 400 Power and Data Distribution Rack.



* Fiber optic connections available only with the 10-Port Ethernet Switch model.

Figure 9: Sample System Connection Diagram 1



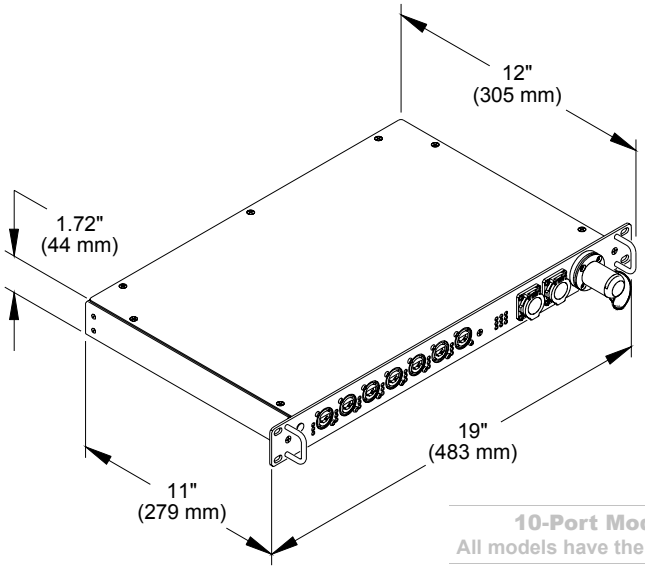
* Fiber optic connections available only with the 10-Port Ethernet Switch model.

Figure 10: Sample System Connection Diagram 2

Specifications

Technical Specifications

POWER REQUIREMENT:	90 to 264 VAC, 47 to 63 Hz Draws less than 60 watts continuously.
COOLING:	Convection.
OPERATING TEMP:	-20°C to 50°C (-4°F to 122°F)
COPPER PORTS:	Seven isolated copper ports that can accept Ethernet signals using either 10Base-T or 100Base-TX standards. Automatic detection and configuration of input signal speed.
FIBER OPTIC PORTS:	(*10-Port model only*) Three fiber optic ports that can accept 100Base-FX Ethernet signal. The speed and direction of these ports are fixed. The ports use 62.5/125um multi-mode fiber media at 1300nm wavelength and operate up to a 2KM distance.
INDICATORS:	Green LED power indicator to show that DC power has been applied. Status LEDs for each port indicating Link, TX Data, and RX Data.
HOUSING:	Standard 1U 19" rack mount chassis.
WEIGHT:	4.5 lbs (2.04 kg)
COMPLIANCE:	United States: ANSI/UL 60950-1-UL Standard for Safety for Information Technology Equipment Safety Canada: CAN/CSA C22.2 No. 60950-1 Information Technology Equipment Safety Europe: CE Mark



10-Port Model Shown
All models have the same dimensions