EI-WPMR-M Series

Industrial Ethernet 10/100 Mbps Compact Managed Switching Hubs

Installation Guide

EI-WPMR-8M extended-temperature managed switches provide capabilities beyond both Plug and Play (PnP) and configurable switches. Besides conventional PnP features (auto-negotiation, 10/100 Mbps data rate, half- or full-duplex operation, flow control), the EI-WPMR-8M adds advanced features such as RapidRing™, VLAN, Trunking, Quality of Service (QoS), Port Mirroring, Simple Network Management Protocol (SNMP), and a programmable fault relay.

Each switch provides preamble regeneration with symmetry and amplitude compensation — retiming signals to eliminate jitter. Digital pre-emphasis compensates for inherent signal strength roll-off. Link integrity is monitored, verifying that a working adapter or hub is on the distant end of a segment.

Configuration can be done in two ways: a) via a web browser from a PC set to communicate on the same LAN as the EI-WPMR-8M default IP address of 192.168.92.68, or b) via a console port connected to a Windows-based terminal emulation program (for console settings, see page 3).

All ports support PAUSE flow control for full-duplex links and backpressure for half-duplex. All RJ-45 ports feature Auto-MDIX for ease of cabling.

The switches are powered from wide-range, low-voltage AC or DC sources and redundant power connections are provided for backup considerations. They come with the hardware for either DIN-rail or panel mounting. The front panels feature a power LED, a management status LED and bi-color LEDs for the link status, activity, and data rate of each port.

Designed for Industrial Ethernet applications, each switch complies with EMC immunity and emissions compatibility standards for industrial environments.

CONTEMPORARY CONTROLS®

c(UL)us
LISTED
4EA4
INDUSTRIAL
CONTROL
EQUIPMENT

Specifications

Electrical

INPUT | **DC** | **AC**

	DC	AC
Voltage:	10–36 V	8–24 V
Power		
Non-fibre Units:	6 W	6 VA
Fibre Units:	10 W	10 VA
Frequency:	N/A	47–63 Hz

Environmental

Operating Temp:	–40°C to +75°C
Storage Temp:	–40°C to +85°C
Humidity:	10–95%, non-condensing

DIN-rail Mounting   TS-35

Shipping Weight   1 lb (0.45 kg)

Regulatory Compliance

CE Mark; EN55022; EN55024
CFR47, Part 15, Class A
UL508 — Industrial Control Equipment

For use in Class 2 circuits

Functional

Compliance: ANSI/IEEE 802.3

	Copper	Fibre
Data Rates:	10/100 Mbps	100 Mbps
Signalling:	10BASE-T	100BASE-FX
	100BASE-TX	
Connectors:	RJ-45 (shielded)	SC or ST
Segment Length (max):	100 m	2 km*
		15 km**

* multimode, full-duplex
** single mode, full-duplex

LED Indicators

Power	green
Status	green
Port Activity	flashing
Port Data Rate/Link	green (100 Mbps)
	yellow (10 Mbps)

RJ-45 Connector Pin Assignments

Pin	Function
1	TD+
2	TD–
3	RD+
6	RD–

(All other pins are unused.)

Mechanical

Optional Panel Mounting Bracket
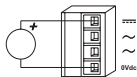(depicted above) is included.
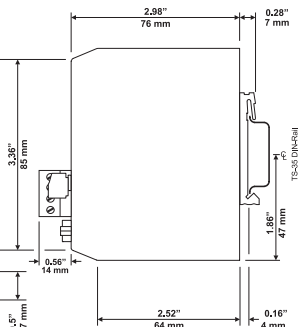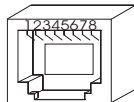
Standard DIN-Rail Mounting Bracket
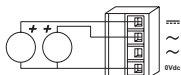(depicted above) is pre-attached.

Power Options

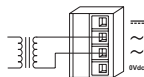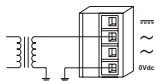The EI-WPMR-M can be powered in various ways as illustrated below :

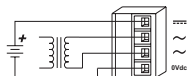**DC POWERED**

REDUNDANT DC POWERED

AC POWERED

AC POWERED WITH GROUNDED SECONDARY

AC POWERED WITH BATTERY BACKUP

Power Considerations

Voltage in the range of 10–36 VDC or 8–24 VAC must deliver current commensurate with power consumption. Power conductors can be stranded (16–18 AWG) or solid (16–22 AWG). Zero volts and the chassis are isolated from each other. Input connections are reverse-polarity protected. Primary power backup for a substitute DC supply or backup battery is possible by way of built-in redundant diode-isolated inputs, but separate provisions are required for charging any backup battery.

LED Indicators

To aid troubleshooting, each port LED glows solid if a link exists, flashes to show activity and shows data rate by colour: green for 100 Mbps and yellow for 10 Mbps. A power LED is provided. A status LED glows green by default and its operation is detailed in the Software Manual (enclosed CD).

Fault Relay

This relay is disabled by default and its operation is detailed in the Software Manual. Its contact is rated at 500 mA, 24 V (max).

Console Port

The Console Port uses the standard RS-232 protocol for configuring the switch. For proper communication :

Set the Baud rate to 9600.

Set the Data bits to 8.

Set the Parity to None.

Set the Stop bits to 1.

Set the Flow control to None.
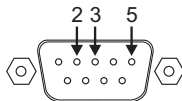
2 Receive Data
3 Transmit Data
5 Signal Ground

NEED MORE HELP INSTALLING THIS PRODUCT?

More information can be found in the Technical Support portion of our web site at www.ccontrols.com. If contacting our office, ask for Technical Support.

WARRANTY

Contemporary Controls (CC) warrants this product to the original purchaser for two years from the shipping date. If it fails to operate in compliance with its specification during this period, CC will, at its option, repair or replace the product at no charge. Product returned to CC for repair is warranted for one year from the date that the repaired product is shipped back to the purchaser or for the remainder of the original warranty period, whichever is longer. The customer is responsible for shipping product; CC assumes no responsibility for product until received. This limited warranty covers products only as delivered. User modification may void the warranty. Damage from abuse, accident, disaster, misuse, or incorrect installation are not covered. This warranty in no way warrants suitability of the product for any specific application. More warranty information can be found at www.ccontrols.com.

> **Warning:** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

RETURNING PRODUCTS FOR REPAIR

Before returning a product for repair, contact the manufacturer (USA office) or its representative (UK office) below for instructions on return procedure:

Contemporary Control Systems, Inc.
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Tel: +1-630-963-7070
Fax: +1-630-963-0109
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Fax: +86-512-68093765
E-mail: info@ccontrols.co.cn
WWW: http://www.ccontrols.asia

MODELS: EI-WPMR-8T   EI-WPMR-6T2MM
EI-WPMR-6T2SM   EI-WPMR-6T2MM-ST

DECLARATION OF CONFORMITY

Applied Council Directives: Low Voltage Directive 2006/95/EC; General Product Safety Directive 2001/95/EC; Electromagnetic Compatibility Directive, 2004/108/EC; Restriction of Hazardous Substances Directive 2002/95/EC; Waste Electrical and Electronic Equipment Directive 2002/96/EC

Standards to which Conformity is Declared: EN 55022:1998 + A1:2000 + A2:2003, Class A, Limits and Methods of Measurement of Radio Disturbance Characteristics of Information Technology Equipment;   EN 55024:1998 + A1:2001 + A2:2003, Information Technology Equipment — Immunity Characteristics — Limits and Methods of Measurement

Manufacturer's Declaration of May 2009: I declare that the above models conform to the above directives and standards.

George M. Thomas, President   *TD070445-0lA*