

## 阅读申明

- 1.本站收集的数据手册和产品资料都来自互联网，版权归原作者所有。如读者和版权方有任何异议请及时告之，我们将妥善解决。
- 2.本站提供的中文数据手册是英文数据手册的中文翻译，其目的是协助用户阅读，该译文无法自动跟随原稿更新，同时也可能存在翻译上的不当。建议读者以英文原稿为参考以便获得更精准的信息。
- 3.本站提供的产品资料，来自厂商的技术支持或者使用者的心得体会等，其内容可能存在描述上的差异，建议读者做出适当判断。
- 4.如需与我们联系，请发邮件到marketing@iczoom.com，主题请标有“数据手册”字样。

## Read Statement

1. The datasheets and other product information on the site are all from network reference or other public materials, and the copyright belongs to the original author and original published source. If readers and copyright owners have any objections, please contact us and we will deal with it in a timely manner.
2. The Chinese datasheets provided on the website is a Chinese translation of the English datasheets. Its purpose is for reader's learning exchange only and do not involve commercial purposes. The translation cannot be automatically updated with the original manuscript, and there may also be improper translations. Readers are advised to use the English manuscript as a reference for more accurate information.
3. All product information provided on the website refer to solutions from manufacturers' technical support or users the contents may have differences in description, and readers are advised to take the original article as the standard.
4. If you have any questions, please contact us at marketing@iczoom.com and mark the subject with "Datasheets" .

CP1W-MODTCP01-US

# CP1 Modbus/TCP Adapter

## Modbus/TCP Master for CP1L and CP1H Micro PLCs

## Modbus/TCP Slave for CJ2M-CPU3x, CP1L and CP1H PLCs

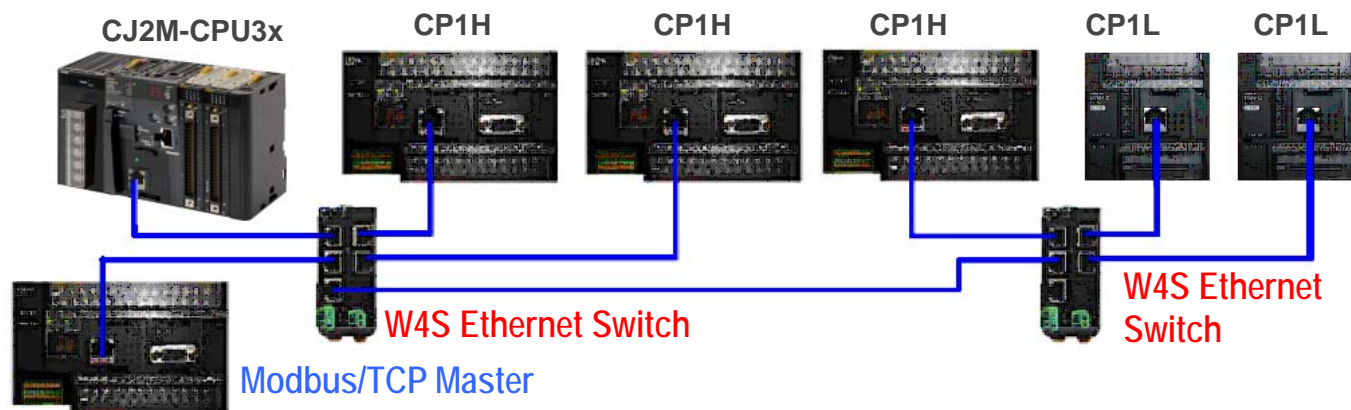
The CP1W-MODTCP01-US allows Omron CP1L, CP1H and CJ2M-CPU3x PLCs to function as slave nodes on a Modbus/TCP network. The adapter can function as either a Modbus/TCP Master or as a Modbus/TCP Slave, but not both simultaneously. The Modbus/TCP Master mode is used to control/monitor IO blocks and other remote devices. The Modbus/TCP Slave mode responds to commands from a Modbus/TCP Master such as a PC or PLC.

### Key Features and Benefits

- **Most Popular Network** – Modbus/TCP/IP is the most popular remote I/O Ethernet network for PLC systems in the world
- **Simple setup** – Web page configuration for IP Address & Master/Slave selection
- **Operates as a Modbus/TCP Master or Slave** - As a Master, the adapter is used to control/monitor IO blocks and other remote devices. As a Modbus/TCP Slave it responds to commands from a Modbus/TCP Master (PC, PLC, other)
- **Perfect for Data Collection** – The CP1W- MODTCP01-US turns a CJ2M-CPU3x, CP1L/H PLC into a Modbus/TCP Slave that can easily share information with a Modbus/TCP Master for remote data collection or control
- **High Speed Counters & Expandable I/O** – 4 x 100Khz counters built-in, up to 320 I/O (CP1H-X) & 180 I/O (CP1L-M60) PLCs
- **Programmable Slave for Motion, Temperature Control** – Each PLC can be a powerful motion controller\* (CP1H - 4 Axis, CP1L – 2 Axis) with high speed interrupts, Real Time Clock, PID, Floating Point Math and is expandable with digital I/O or analog for Temperature or Process Control. The addition of a Modbus/TCP adapter turns the PLC into a Low Cost Programmable Slave  
\*Transistor models
- **Supports Multiple Connections** - If the adapter is configured in Modbus/TCP slave mode, it can also support communications to CX-Programmer, NS HMI or other devices that use FINS (Omron's open communication protocol)
- **Gateway for Modbus/TCP & FINS Ethernet** – Allows CS/CJ PLCs with Ethernet or EtherNet/IP to communicate using FINS through a CP1 PLC as a Modbus/TCP Slave

### Typical Master/Slave Configuration

Modbus/TCP Slaves can perform Motion Control, Process Control, etc.



### Specification

Item	Description
<b>Part #: CP1W-MODTCP01-US</b>	CJ2M-CPU3x, CP1L/H - Modbus/TCP Slave or CP1L/H Modbus/TCP Master (not both simultaneously)
<b>Type, Max # of Modbus Slave nodes</b>	100Base-TX (Can be used as 10Base-T), 254 Max Slave Nodes
<b>Applicable PLCs</b>	CP1L-L14, CP1L-L20, CP1L-M30, CP1L-M40, CP1L-M60, CP1H
<b>Max Distance, Communication Method</b>	100 m (distance between hub and node), Modbus/TCP/IP protocol
<b>Max number of units mounted in PLC</b>	2 (1 Modbus/TCP Master, 1 Modbus/TCP Slave)(CP1L 30 I/O or more or CP1H)
<b>Max connection/adaptor - Slave mode</b>	4 – (2 Modbus/TCP connections & 2 FINS)
<b>Max connection/adaptor - Master mode</b>	1 connection (CP1L, CP1H PLCs only can be set to Master Mode)
<b>Current IP Address (Slave mode)</b>	D1200, D1201 (D1200=1st & 2nd Octets in Hex, D1201=3rd & 4th Octets in Hex)
<b>Default IP Address, Web Page Set-up</b>	192.168.250.11 Web Page Set-up: <a href="http://192.168.250.11">http://192.168.250.11</a>

## The adapter supports the following Modbus/TCP function codes:

01 – Read Coil Status	02 – Read Input Status	03 – Read Holding Registers
04 – Read Input Registers	05 – Force Single Coil	06 – Preset Single Register
0F – Force Multiple Coils	10 – Preset Multiple Registers	

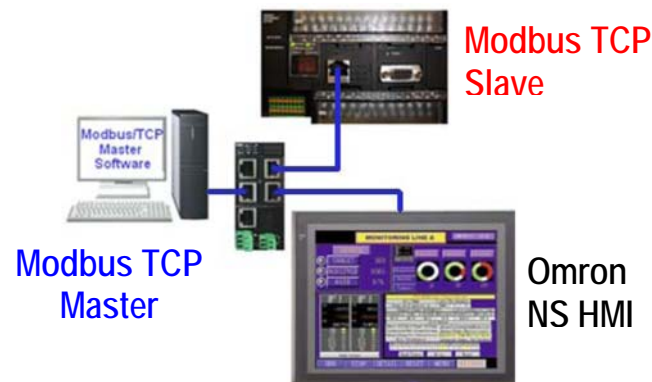
### Applications

- Tank Level, Monitoring and Control
- High Speed I/O Data Loggers
- Irrigation Systems, Sequence Control
- Waste Water Monitoring and Control
- Voltage, Current, Monitoring and Control
- SCADA Equipment
- Machine Tool Industry
- Building Automation
- Solar Farms

### Configuration Examples

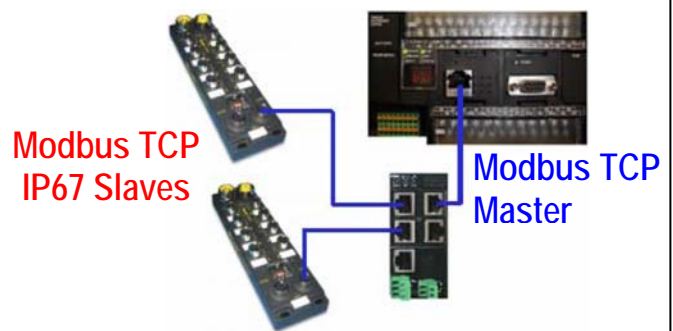
[http://www.omron247.com/marcom/Pdfcatalog.nsf/PDFLookupByLinkCode/Man\\_ModbusTCP\\_Setup\\_W04I?OpenDocument](http://www.omron247.com/marcom/Pdfcatalog.nsf/PDFLookupByLinkCode/Man_ModbusTCP_Setup_W04I?OpenDocument)

Modbus/TCP Slave Supports Multiple Connections



Shown above, the PC is the Modbus TCP Master and it is controlling/monitoring the remote slave (CP1H). The NS HMI communicates to the CP1H PLC via FINS. An Omron W4S Ethernet switch is used to connect the various Ethernet devices.

Modbus/TCP Master to IP67 Slaves, etc.



Shown above is a CP1H PLC with a CP1W-MODTCP01-US adapter configured for Master mode. It is communicating to two remote Omron IP67 Modbus TCP slaves. An Omron W4S Ethernet switch is used to connect the various Ethernet devices.

### Ordering Information

Part Number	Description
CP1W-MODTCP01-US	Modbus/TCP Adapter for CJ2M-CPU3x, CP1L and CP1H series PLCs

Additional literature can be obtained from [www.omron247.com](http://www.omron247.com)

**W450** - CP1H Operation Manual  
**W451** - CP1L / CP1H Programming Manual

**W462** - CP1L Operation Manual  
**V227** - W4S Ethernet Switch

OMRON ELECTRONICS LLC • THE AMERICAS HEADQUARTERS • Schaumburg, IL USA • 847.843.7900 • 800.556.6766 • [www.omron247.com](http://www.omron247.com)

OMRON CANADA, INC. • HEAD OFFICE  
 Toronto, ON, Canada • 416.286.6465 • 866.986.6766  
[www.omron247.com](http://www.omron247.com)

OMRON ARGENTINA • SALES OFFICE  
 Cono Sur • 54.11.4783.5300

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE  
 São Paulo, SP, Brasil • 55.11.2101.6300 • [www.omron.com.br](http://www.omron.com.br)

OMRON CHILE • SALES OFFICE  
 Santiago • 56.9.9917.3920

OMRON ELECTRONICS MEXICO SA DE CV • HEAD OFFICE  
 Apodaca, N.L. • 52.811.156.99.10 • 001.800.556.6766 • [mela@omron.com](mailto:mela@omron.com)

OTHER OMRON LATIN AMERICA SALES  
 54.11.4783.5300