

LonWorks Communication Module (CME-LW01) Instruction Sheet

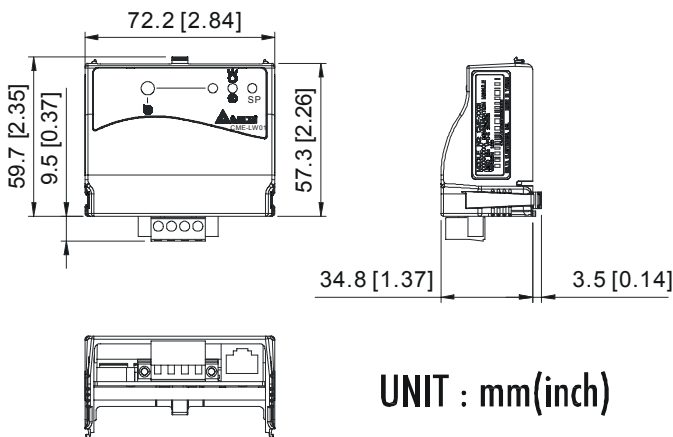
- ◆ Lonworks is a registered trademark of Echelon Corporation.
- ◆ Please thoroughly read and understand the following contents to ensure correct use before operation.
- ◆ The content of this instruction sheet may be revised without prior notice. Please consult our distributors or download the most updated version at <http://www.delta.com.tw/industrialautomation>

A. Introduction

Device CME-LW01 is used for communication interface between Modbus and LonTalk. CME-LW01 needs be configured via LonWorks network tool first, so that it can perform the function on LonWorks network. No need to set CME-LW01 address. This manual provides instructions for the installation and setup for CME-LW01 that is used to communicate with Delta VFD-E (firmware version of VFD-E should conform with CME-LW01 according to the table below) via LonWorks Network. The content of this instruction sheet may be revised without prior notice. Please consult our distributors or download the most updated version at <http://www.delta.com.tw/industrialautomation>.

Delta AC Drive	
Series	Firmware Version
VFD-E	Version 2.02 or higher

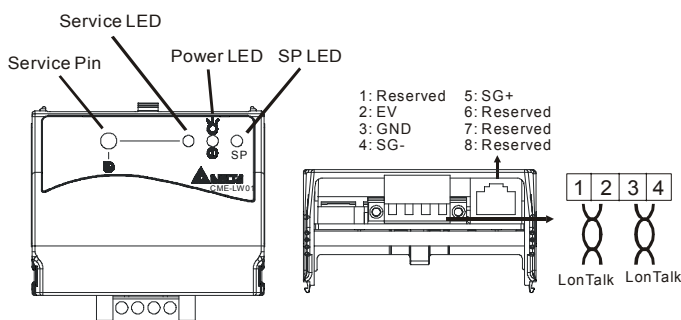
B. Dimensions



C. Specification

Power supply	16-30VDC, 750mW
Communication	Modbus in ASCII format, protocol: 9600, 7, N, 2
LonTalk	free topology with FTT-10A 78 Kbps
LonTalk terminal	4-pin terminal, wire gauge: 28-12 AWG, wire strip length: 7-8mm
RS-485 port	8 pins with RJ-45

D. Wiring



■ Terminal definition for LonTalk system

Terminal	Symbol	Function
1		These are twisted pair cables to connect to LonTalk system. Terminals 1 and 2 should be used as one group, and the same for terminals 3 and 4.
2		
3		
4		

E. LEDs Indications

There are three LEDs in front panel of CME-LW01. If the communication is normal, power LED, SP LED should be green (red LED means abnormal communication) and service LED should be OFF. If LEDs display do not match, refer to user manual for details.

■ Power LED

State	Description	Corrective Actions
Green LED	Power is on and CME-LW01 works	
LED is OFF	Power on or program is abnormal	1. Check if power is 24V or plug is loose. 2. Check if flash memory IC is well-inserted to the socket.

■ SP LED

State	Description	Corrective Actions
Green LED	It communicates to AC drive	
Blinked Green LED	CME-LW01 reads default setting from AC drive	
Red LED	Disconnect or time-out	1. Check if cable is loose. 2. Check if the communication protocol is properly set.

■ Service LED

State	Description	Corrective Actions
LED blinks at 1/2 Hz rate	This is the normal situation for an un-configured device	
LED is OFF	Bad hardware device	Check if anything wrong with power supply, clock or Neuron chip.
LED is ON continuously, even when power is first applied to the device.	Bad hardware device	1. Check if anything wrong with power supply, clock or Neuron chip. 2. Check if there is a short circuit between pin 17 and 18.
LED blinks at power-up, goes OFF, then ON solid.	This is the normal situation for an application-less device.	If the device is not an application-less, then it could be memory problems or application code errors. A self-test failure can also turn the LED ON solid.

NOTE

Please download the XIF file and user manual at <http://www.delta.com.tw/industrialautomation/>

LonWorks 通讯模块 (CME-LW01) 说明书

- ◆ Lonworks 是 Echelon Corporation 的注册商标。
- ◆ 请详细阅读下列说明后才使用本产品，以确保使用安全。
- ◆ 由于产品精益求精，当内容规格有所修正时，请洽询代理商或至台达网站 (http://www.delta.com.tw/ch/product/em/em_main.asp) 下载最新版本。

A. 前言

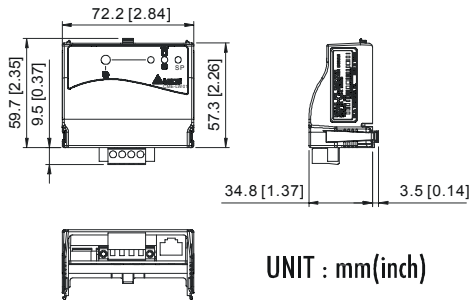
本产品为 Modbus 与 LonTalk 通讯的转换界面，透过 LonWorks 网络整合工具对 CME-LW01 组态 (Configure) 完成后，CME-LW01 即可运行于 LonWorks 网络。

下列内容提供 CME-LW01 的安装与设定，以使台达变频器可藉由 CME-LW01 而连接至 LonWorks 网络。(CME-LW01 所支持变频器的版本如下表所示。) 由于产品精益求精，当内容规格有所修正时，请洽询代理商或至台达网站

(<http://www.delta.com.tw/industrialautomation/>) 下载最新版本。

台达变频器	
变频器机种	韧体版本
VFD-E	Version 2.02 以上

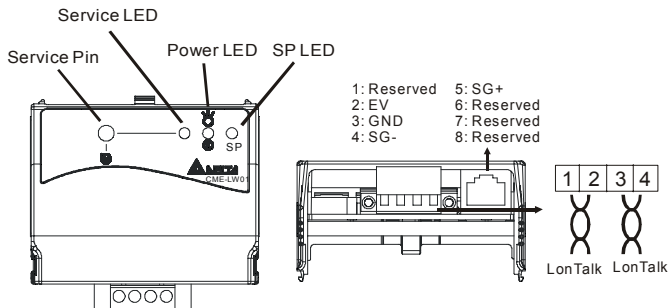
B. 尺寸



C. 电气规格

电源	16-30VDC, 750mW
传输速率	Modbus: ASCII 7, N, 2, 速率: 9600。
LonTalk	free topology with FTT-10A 78 Kbps。
LonTalk 连接埠	4 PIN 端子座; 适用导线线径: 28-12 AWG; 剥线长度: 7-8mm。
RS-485 连接埠	8 PIN RJ-45 座

D. 配线



■ LonTalk 端 Pin 脚定义

Pin 脚	符号	功能
1		以双绞线方式接到 LonWorks 装置通讯口。
2		
3		配线时, pin 脚 1、2 需为一组, 而 pin 脚 3、4 需为一组, 不可配错。
4		

E. 灯号指示

CME-LW01 正面面板有三个 LED 指示灯，如下图所示。当通讯正常，power LED、SP LED 应是亮绿色(若红色指示灯亮起，则表示通讯异常)且 service LED 指示灯需是熄灭。若 LED 指示灯与上述不同时，请参考使用手册。

■ Power LED

状态	功能描述	改善对策
绿色 LED 亮	电源正常且 CME-LW01 正常运作	
LED 不亮	电源或程序异常	1. 检查输入电源接头是否有松脱 2. 检查 CME-LW01 的 flash memory IC 是否已依 IC 座的方向性平整的放置于 IC 座内。

■ SP LED

状态	功能描述	改善对策
绿色 LED 亮	CME-LW01 与变频器通讯正常	
绿色 LED 闪烁	CME-LW01 正在读取变频器默认值	
红色 LED 亮	CME-LW01 与变频器通讯异常或通讯逾时	1. 检查通讯线是否松脱 2. 检查通讯格式与速率是否符合 CME-LW01 之设定条件

■ Service LED

状态	功能描述	改善对策
LED 以 1/2 Hz 的频率闪烁组态 (unconfigure) 完成后, LED 熄灭	对于一个尚未组态 (unconfigure) 的 CME-LW01 而言, 此乃正常现象。CME-LW01 正常现象	透过网络整合工具对 CME-LW01 进行组态, 完成后 LED 会熄灭。
尚未组态 (unconfigure), LED 即不亮	CME-LW01 硬件电路异常	1. 检查电源接头与输入规格 2. 检查 CME-LW01 电路板上的震荡器之震荡频率是否在 20MHz 3. 检查神经元芯片外观有无损毁
LED 恒亮, 即使第一次给电亦如此。	CME-LW01 硬件电路异常	1. 检查电源接头与输入规格 2. 检查 CME-LW01 电路板上的震荡器之震荡频率是否在 20MHz 3. 检查神经元芯片外观有无损毁 4. 检查神经元芯片接脚 17、18 之间有无短路
LED 于上电初期红色闪烁, 然后熄灭, 最后红色 LED 恒亮。	对于一个尚未运作 (Applicationless Device) 的 CME-LW01 而言, 此乃正常现象	若非本身没有 Application Image 而导致 Applicationless 的话, 可能是 CME-LW01 程序或 CME-LW01 硬件问题导致此现象。自我测试检查失败, 也可能使此 LED 恒亮。

NOTE

请至台达网站下载 XIF 档案及其使用手册

http://www.delta.com.tw/ch/product/em/em_main.asp