



ALL-MC301P2WIRE-T

ALL-MC301P2WIRE-R



QUICK INSTALLATION GUIDE

This quick start guide describes how to install and use the 10/100Base-TX Ethernet Extender over Twisted pair with High Power over Ethernet (PoE+) & Power over Wire (PoW). The EoW converter introduced here consists of a transmitter (TX) and receiver (RX) and provides one channel for Ethernet over a Twisted pair cable with PoW & PoE.

Overview

The ALL-MC301P2WIRE Series product provides Ethernet Extension of 1-CH 10/100Base-TX over Twisted pair cable (400m max.). The products provide high power PoE (30W max Power Sourcing Equipment (PSE)) to the network device. The products support PoW, hence, no power connection is required for the transmitter and the network device at the transmitter side.

General

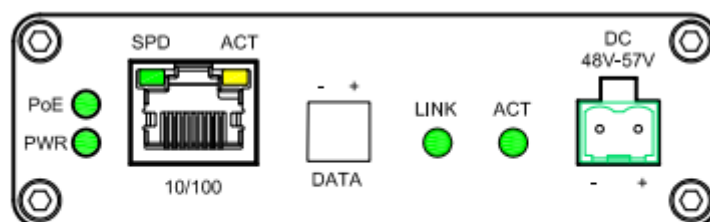
Check the product upon receipt for any visible damage which may have been caused during shipment.

Package Content

- 1x ALL-MC301P2WIRE Converter
- 1x 2 Pin Terminal Block (WJ15EDGK)
- 1x 2 Pin Terminal Block (WJ2EDG)
- Quick Start Guide

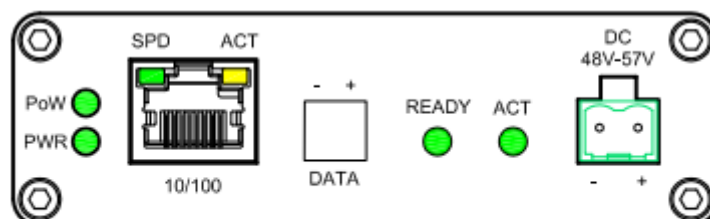
Hardware Description

Transmitter



ALL-MC301P2WIRE-T

Receiver



ALL-MC301P2WIRE-R

Connecting to Power

The EoW converter is a plug-and-play device. The ALL-MC301P2WIRE receiver and transmitter each support two types of power input.

Receiver (ALL-MC301P2WIRE-R)

1. External Power Adapter - Connect an AC to DC power adaptor (48VDC – 57VDC output) to the power connector (2 pin terminal block) of the receiver, and then attach the plug into a standard AC outlet. The PWR LED will then be lit.
2. Power over Ethernet (PoE) - Connect the Ethernet cable from an Ethernet switch with high power PoE (PoE+) to the RJ45 (10/100) of the receiver, the PWR LED will then be lit. In this case, power adapter is not needed.

Transmitter (ALL-MC301P2WIRE-T)

1. External Power Adapter - Connect an AC to DC power adaptor (48VDC output) to the power connector (2 pin terminal block) of the transmitter, and then attach the plug into a standard AC outlet. The PWR LED will then be lit.
2. Power over Wire (PoW) - If the transmitter is not connected to a power adapter, the transmitter can get the power from the remote receiver through the twisted pair cable. The PWR LED will then be lit.

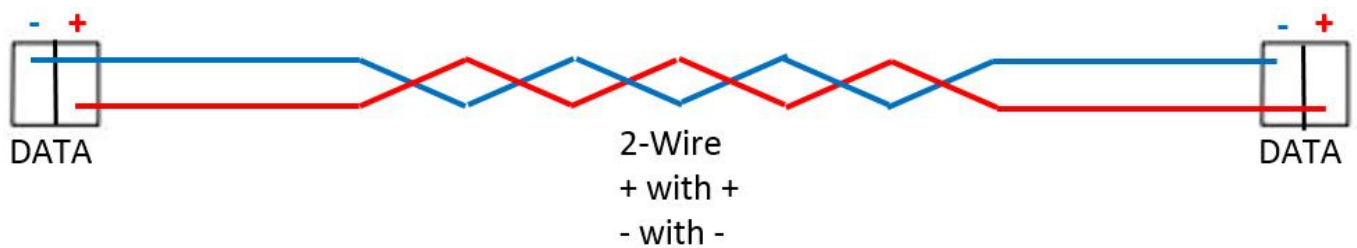
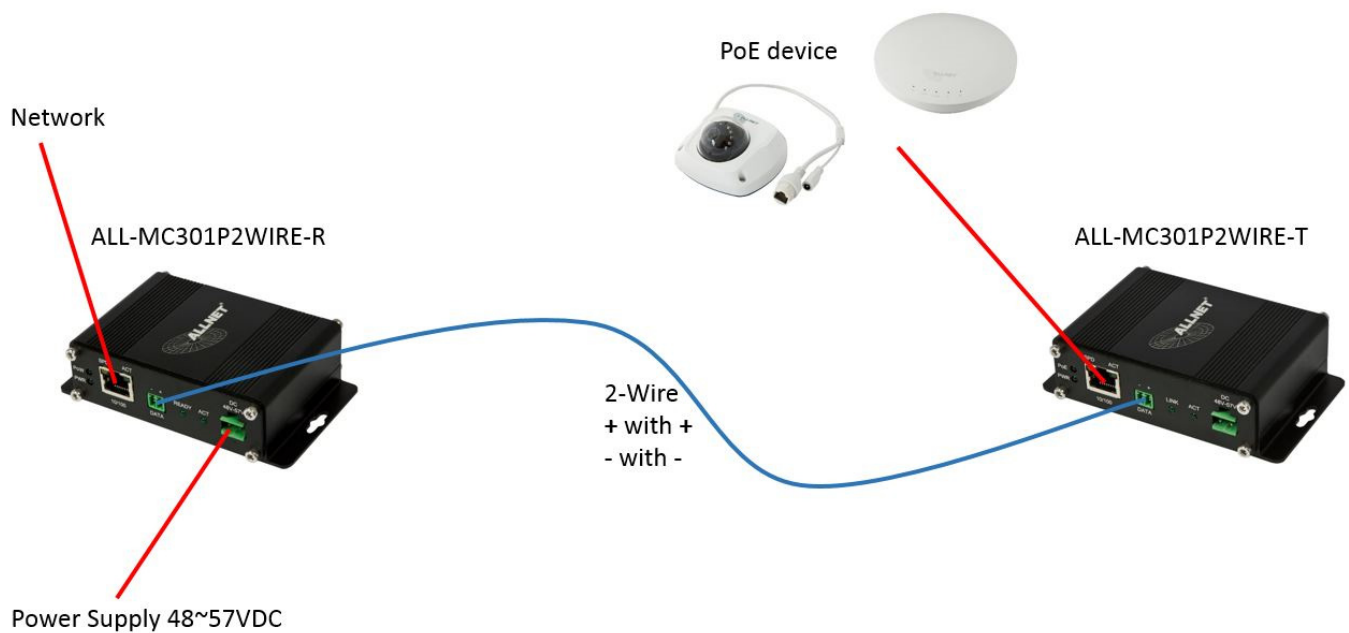
Connecting to Twisted pair

Connect the twisted pair cable to the small terminal block connector (DATA) of the transmitter and receiver. If the transmitter and receiver are properly connected, the Link LED (LINK) near the DATA port of the transmitter will be lit (ON). The READY LED of the receiver will be lit too when the PoW is in use.

NOTE: Please make sure to connect the receiver and transmitter with correct polarity. (+ with + | - with -)

Connecting to Ethernet

Connect the Ethernet cable from the network device to the Ethernet port (10/100) of the transmitter. If the cable is properly connected, the LINK/ACT LED of the Ethernet port of the transmitter will start flashing. The transmitter will supply power to the connected PoE device via the Ethernet cable and the PoE LED will be lit. Connect the Ethernet cable from your Ethernet switch or similar equipment to the Ethernet port (10/100) of the receiver. If the cable is properly connected, the SPD/ACT LED of the Ethernet port of the receiver will be lit.



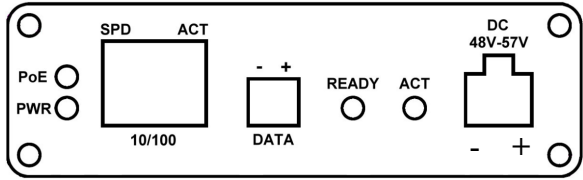
Power Supply
48~57VDC



DC 48V-57V

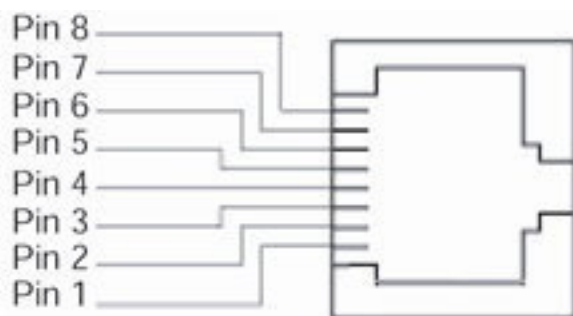


Power Connector

Pin	-	+	
Description			
Power Input	GND	48V~57V (DC)	

The 10/100Base-TX Connector

RJ45 pin assignment:



Pin	MDI	MDI-X
1	TD+	RD +
2	TD-	RD-
3	RD +	TD+
4	Positive (VCC+)	Positive (VCC+)
5	Positive (VCC+)	Positive (VCC+)
6	RD-	TD-
7	Negative (VCC-)	Negative (VCC-)
8	Negative (VCC-)	Negative (VCC-)

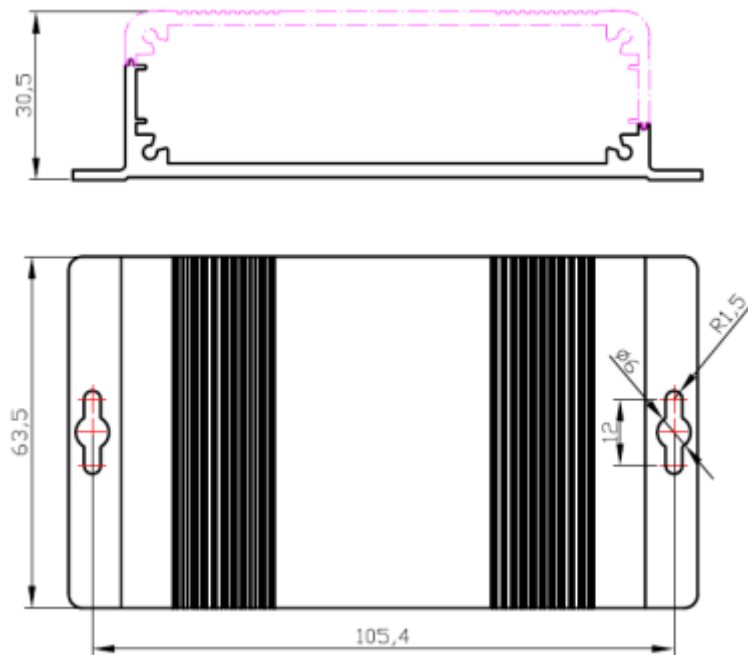
The transmitters, as a Power Sourcing Equipment (PSE), use the spare wires (alternative B) to supply power to the PoE device.

Cable Connection

Interface Type	Support Description	Cable Type
RJ45	10Base-TX 100Base-TX	Category 3 or above cable Category 5 or above cable
Small terminal block	Ethernet over Twisted pair	Twisted pair @ 26AWG
2-pin Terminal Block	Power input (48~57VDC)	2-wire

The power supply should be able to deliver a minimum of 50W with a voltage of 48~57VDC. A compatible power supply would be ALLNET Art. 119067 (55V / 2A). For more options please consult your dealer.

Dimensions Drawing of the Product (Unit: mm)



LEDs

The LED indicators give you instant feedback on status of the EoW Transmitter & Receiver:

LEDs		Color	State	Indication
PWR		Green	ON	Power on, PWR stands for POWER
			OFF	Power off
Twisted Pair DATA	Link(TX)	Green	Steady	The transmitter and receiver communicate and link with each others.
			Off	The transmitter and receiver do not communicate or the twisted pair cable is disconnected.
	ACT	Green	Flashing	Data transfer within the twisted pair cable
			Off	No data transfer within the twisted pair cable
	READY (RX)	Green	Steady	The converter is ready for data transfer
			Off	The converter is not ready
PoE (TX)		Green	ON	Power is applied to the Power Device (PD)
			OFF	A non-PoE device is connected or Ethernet connection is not established
PoW (RX)		Green	ON	Power is applied to the TX side
			OFF	Power off, don't use the power from RX side
Ethernet				
LINK/ACT		Green	Steady	A valid Ethernet connection established
			Flashing	Transmitting or receiving Ethernet data, Act stands for ACTIVITY
			Off	Neither valid Ethernet connection established nor transmitting/receiving Ethernet data
SPD		Yellow	Steady	Ethernet Connection transferring at 100Mbps
			Off	Ethernet Connection transferring at 10Mbps

Functional Description

- PoE+(30W) and Power over Twisted pair
- 802.3af/802.3at Compliant
- Data Rate up to: 90Mbps (Downlink), 90Mbps (Uplink)
- Max.Distance: 400m over Twisted pair cable (26AWG)
- Accept 48VDC external power input or PoE power input from RJ45 port (Receiver side)



Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- Do not open the device. Opening or removing the device cover can expose you to dangerous high voltage points or other risks. Only qualified service personnel can service the device. Please contact your vendor for further information.
- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.

ALLNET GmbH Computersysteme declares that the devices **ALL-MC301P2WIRE-T** and **ALL-MC301P2WIRE-R** are in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC or 2014/30/EU. The Declaration of conformity can be found under this link:

www.allnet.de/downloads.html

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