

Vi2400W Ethernet Extender over UTP Installation Manual



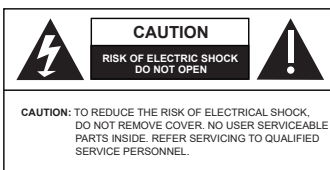
The MaxiiCopper Model Vi2400W is a transmission device with IP67 weather proof packaging that extends full-duplex high-speed Ethernet and PoE over existing Coax infrastructures. It extends 10BaseT signals up to 3,000 feet (914m) and 100BaseT up to 1,500 feet (457m). It employs MaxiiCopper innovative and unique Ethernet extension technology that is designed to take full advantage of high-bandwidth networking cables and maintain a full-duplex of 10 or 100 Mb/s Ethernet connection up to the maximum range with minimum transmission error and latency.

Pass Through PoE (PTP™) eliminates the need for additional remote site power while allowing a single PoE source, such as a PoE network switch, to provide power to both transceivers and the camera. This feature eliminates the need for local and remote site power supplies. The Vi2400W is type tested under NEMA-TS2 environmental standards for extended temperature operations between -40C° to +75C°, the Vi2400W is the perfect solution for extended distance data and power transmission for warehouses, parking lots, campuses, casinos, and many more.

Installation cost savings, proven performance, and major camera brand compatibility all go into making Vigitron's MaxiiCopper™ Vi2400W your best choice for extended distance data and power transmission.

Important Safety Warning

- Read and keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Install in accordance with the manufacturer's instructions.
- This installation should be made by a qualified service person and should conform to all local codes.
- DO NOT bundle UTP or Coax signals in the same conduit as high-voltage wiring.
- To reduce the risk of fire or electrical shock, do not expose these products to rain, moisture, dripping or splashing.
- No objects filled with liquids, such as vases, shall be placed on Vigitron equipment.
- DO NOT install the unit in a place where the operating ambient temperature exceeds 75°C or is below - 40°C.
- Make sure that the external power supply output voltage is in the recommended range.
- Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
- Protect the power cord from being walked on or pinched particularly at power source, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when a power supply cord or plug is damaged, liquid has been spilled, objects have fallen inside the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The main plug is used as the disconnect device and shall remain readily operable.



WARNING! - To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.

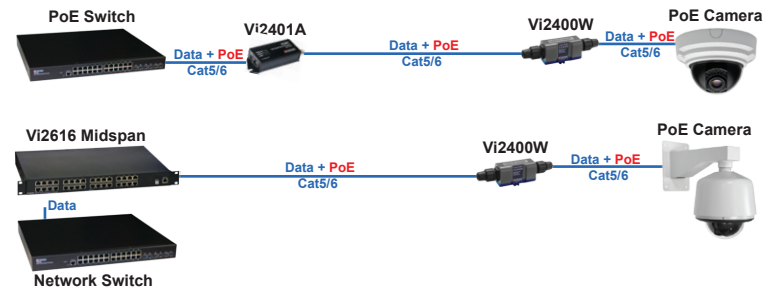
WARNING! - This apparatus is a Class I product. This product must be connected to a mains socket outlet thru an AC to DC Power supply.

WARNING! - The mains plug is used as the disconnect device and shall remain readily operable.



Application Drawing

Vi2400W Powers a PoE Camera:



IP Camera-end Installation

Standard Ethernet Connection:

- The Vi2400W need to be powered by PoE from the control room side.
- Connect the IP camera RJ45 connector to the "Standard Ethernet" port of Vi2400W using a standard Cat5/6 cable of maximum 100m in length.
 - Connect one end of the UTP cable to the "Standard Ethernet" waterproof RJ45 connector of Vi2400W.

In order to connect wires to the weatherproof connectors:

- a- Unscrew the gasket and insert the UTP cable checking to confirm there is no spacing between the wire and the insertion hole.
- b- Connect the RJ45 cable and insert it into the RJ45 female connector on the Vi2400W's body making certain the connection is tight.
- c- Reconnect the gasket by screwing into the Vi2400W body making certain to limit any wire slack.

Extended Ethernet Connection:

- Connect one end of the long Coax to waterproof BNC connector of the "extended Ethernet" port on Vi2400W.

In order to connect wires to the weatherproof connectors:

- a- Unscrew the gasket and insert the Coax cable checking to confirm there is no spacing between the wire and the insertion hole.
- b- Connect the BNC connector and insert it into the Coax female connector on the Vi2400W's body making certain the connection is tight.
- c- Reconnect the gasket by screwing into the Vi2400W body making certain to limit any wire slack. limit any wire slack.

Ethernet Switch/Midspan-end Installation

The other end of long Coax cable can be connected to several different Vigitron Extenders. Please follow the installation guide for the selected device.

Data and PoE Distance ^{2,4}

Data Rate	Distance ³ (with POE)
10BaseT	3,000 ft. (914m)
100BaseT	1,500 ft. (457m)

1. Specifications subject to change without notice.
2. Distance figures are obtained using in house testing mirroring installations. Factors such as cabling, connections, use of power and environmental conditions may affect actual distances and should be taken into consideration.
3. Specifications reflect operating using Pass Through PoE (PTP™) providing power for both transceivers and camera from a single source. Distances may increase if transceivers are locally powered.
4. System can be powered for 802.3af /at using PTP™ reference used is Class 2.

Technical Specifications¹

Electrical

Ethernet Interface	Standard 10/100BaseT
Data Rate	Auto select 10/100 Mb/s Full speed / full duplex at maximum rated distance
Coax	1,500 feet (454 m) at 100BaseT with PoE
Power Consumption	1.8 W w/POE af/at, 1.5 W
Connectors	RJ45 x 1 BNC x 1
Surge Protection	6Kv
RFC	2544 TCP/IP Packet Transmission
PoE Compatibility	IEEE 802.3af, IEEE 802.3at
RFC	768 UDP, 2068 HTTP, 793 TCP 791 IP, 1783 TFTP, 894 IP over Ethernet
Jumbo Frame Support	Yes

Regulatory

FCC	Part 15, Subpart , Class B 2010
Emissions	EN 5502:2006+A1:2007, EN 61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-3:2008, EN 55024:1998+A1:2001+A2:2003
Safety	CE
Environmental	RoHS

Environmental

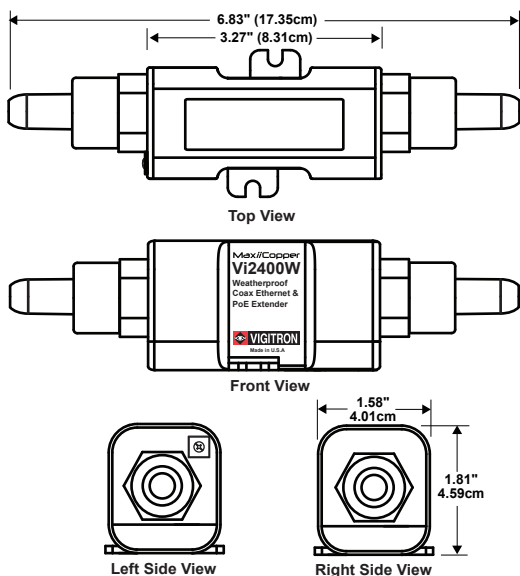
Humidity	0 to 95%, non-condensing
Temperature	Operating: -40°C to +75°C per NEMA-TS2 testing** Storage: -40°C to +85°C
Environment	IEC60068-252 Salt Laden

Mechanical

Dimensions	1.81x3.27x1.58 in., 4.59x8.31x4.01 cm (HxWxL)
Weight	0.56lb (254g)
Material	Extruded Aluminum

**Vigtron "W" are designed as self contained to comply with specific environmental standard. Operating in conditions other than free air with proper ventilation will affect performance and may void warranty.

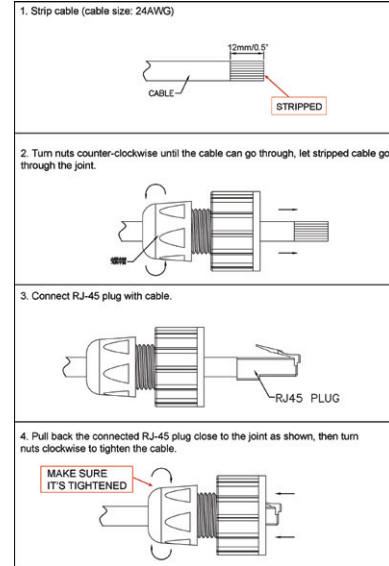
Drawings



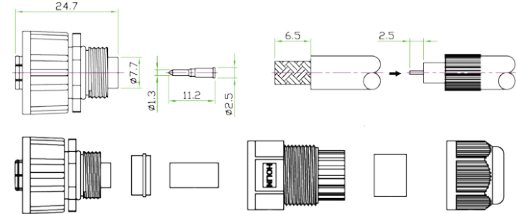
RJ-45 Installation Instruction

Installing cable and connector is critical for maintaining the IP 67 performance of this product. Please follow instructions carefully.

Weatherproof RG45 Installation Instruction



Weatherproof RG59 Installation Instruction



Ordering Information

PART No.	Description
Vi2400W	1-port IP67 Coax Ethernet Extender
Vi2401A	1-port Coax Ethernet Extender
Vi2404A	4-port Coax Ethernet Extender
Vi2408A	8-port Coax Ethernet Extender, 19", 1U
Vi2416A	16-port Coax Ethernet Extender, 19", 1U

Limited Lifetime Warranty

Vigtron, Inc. warrants that all Vigtron products ("Product"), if used in accordance with these instructions, will be free of defects in material and workmanship for lifetime defined as the duration period of time until product end of life is announcement. After which Vigtron will continue to provide warranty services for a period of 3 years. Period covering valid warranty will be determined by proof of purchase in the form of an invoice from an authorized Vigtron dealer.

Warranty will only be provided for as long as the original end user purchaser owns the product. Warranty is not transferrable. At Vigtron's option, defective product will be repaired, replaced or substituted with a product of equal value. This warranty does not apply if, in the judgment of Vigtron, Inc., the Product fails due to damage from shipment, handling, storage, accident, abuse or misuse, or if it has been used or maintained not conforming to Product manual instructions, has been modified, or serial number removed or defaced. Repair by anyone other than Vigtron, Inc. or an approved agent will void this warranty. Vigtron, Inc. shall not under any circumstances be liable to any person for any incidental, indirect or consequential damages, including damages resulting from use or malfunction of the product, loss of profits or revenues or costs of replacement goods. The maximum liability of Vigtron, Inc. under this warranty is limited to the original purchase price of the Product only.

