



## INSTALLATION AND OPERATION MANUAL

# CE-(X)COAX ETHERNET-OVER-COAX EXTENDER WITH PASS-THROUGH POE

### Important Safety Warning:

- Read and keep these directions
- 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
- See further safety instructions on page 8

The CE-(X)COAX Ethernet over COAX line consists of four models that support 100 Mbps Ethernet as well as pass-through Power over Ethernet (PoE) over standard 75Ω coaxial cable. These models support transmission distances of up to 5,000 feet (1524 m) at 10 Mbps, or 1800 feet (548 m) at 100 Mbps. The CE-1COAX, the CE-4COAX, CE-8COAX and the CE-16COAX transport, one, four, eight or sixteen channels respectively. The IEEE 802.3-compliant extenders also meets the requirements for IEEE 802.3af/at PoE power, passing through up to 30 watts of power per port to the powered device (PD). The CE-(X)COAX series may also be used interchangeably with other Ethernet-over-Coax extenders.

Environmentally hardened to the requirements of NEMA TS-1/TS-2 for most out-of-plant applications, and true plug-and-play design ensures ease of installation and operation.

LED indicators are provided for rapidly ascertaining the operating status of the device. See Figures 7 and 8 on page 6 for LED explanations.

Packaged in a rugged aluminum housing, these units are designed for desktop or stand-alone mounting. The CE-8COAX and CE-16COAX are offered in EIA 19" 1U high rack for easy installation. See Figures A through C on page 7 for mounting instructions.

See Figures 1 – 8 for complete installation details.

FIGURE 1 – CE-1COAX

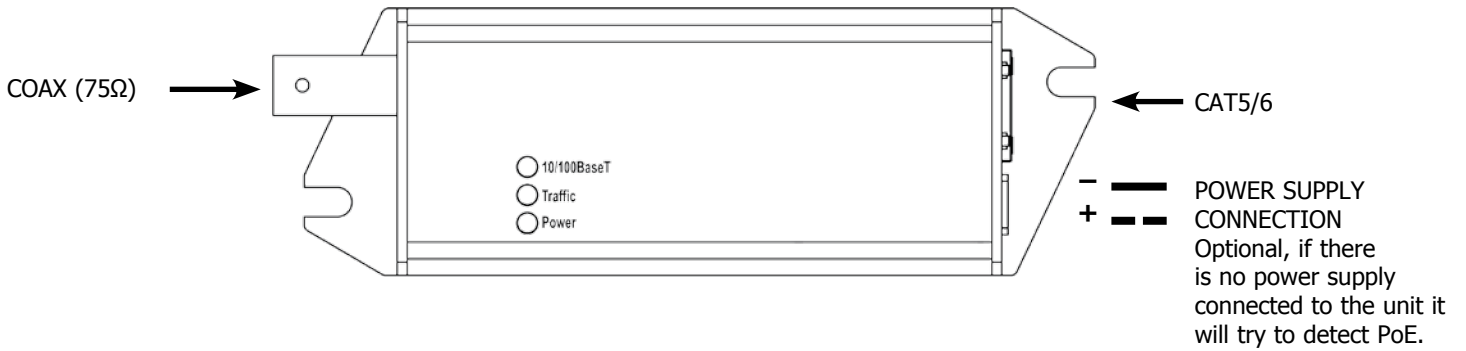
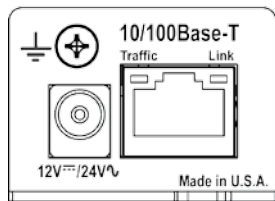
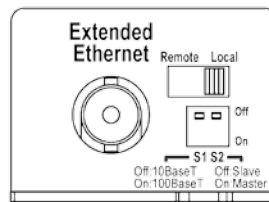


FIGURE 2 – CE-1COAX

RIGHT PANEL



LEFT PANEL



Note: Center pin on power connector is positive (+).

FIGURE 3 – CE-4COAX

LEFT PANEL

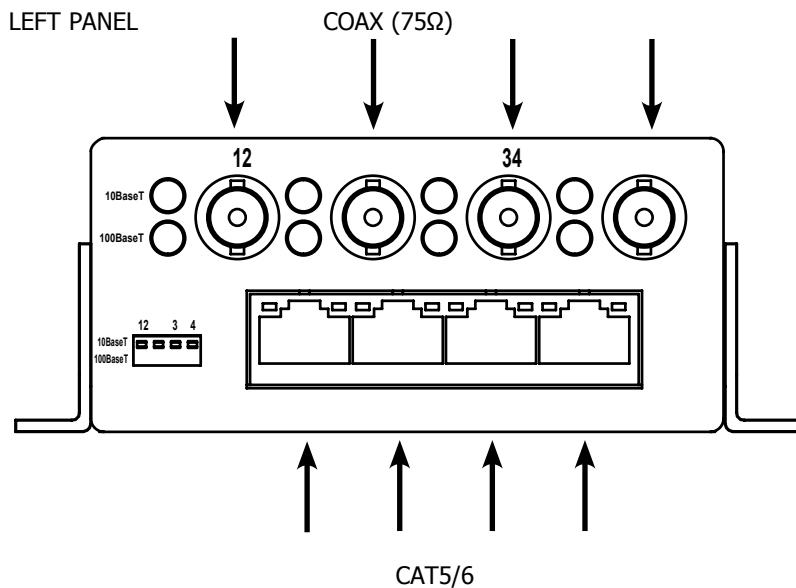


FIGURE 4 – CE-8COAX

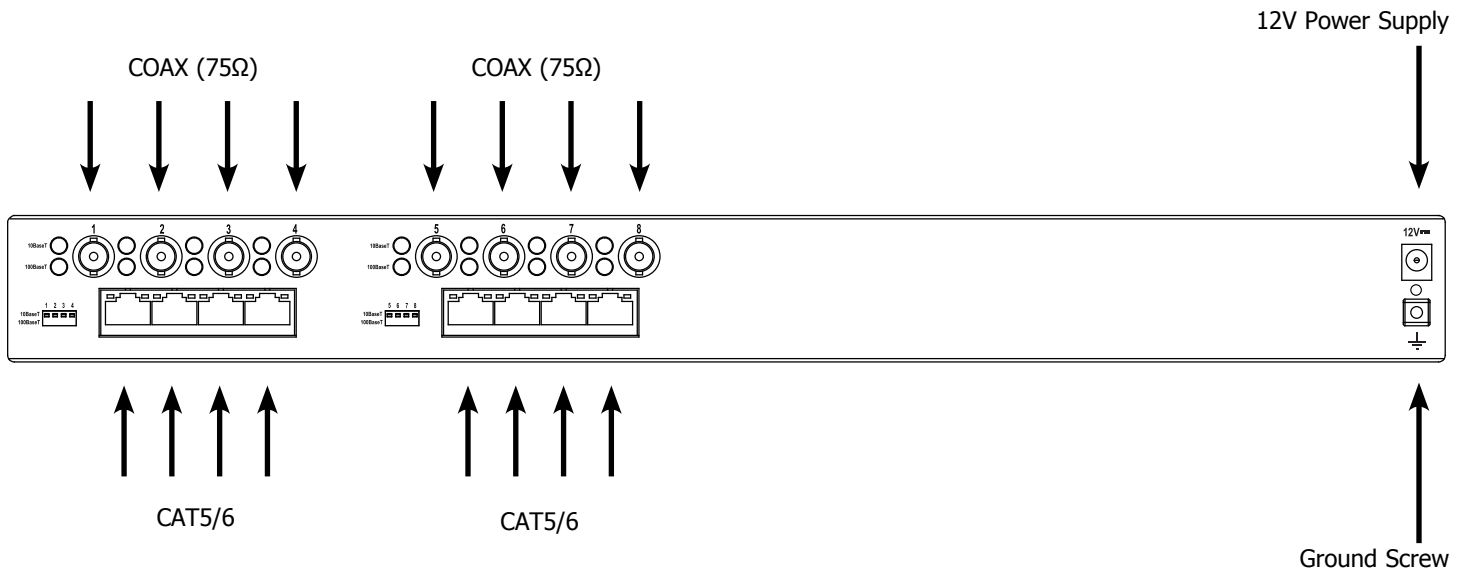


FIGURE 5 – CLFE16COAX

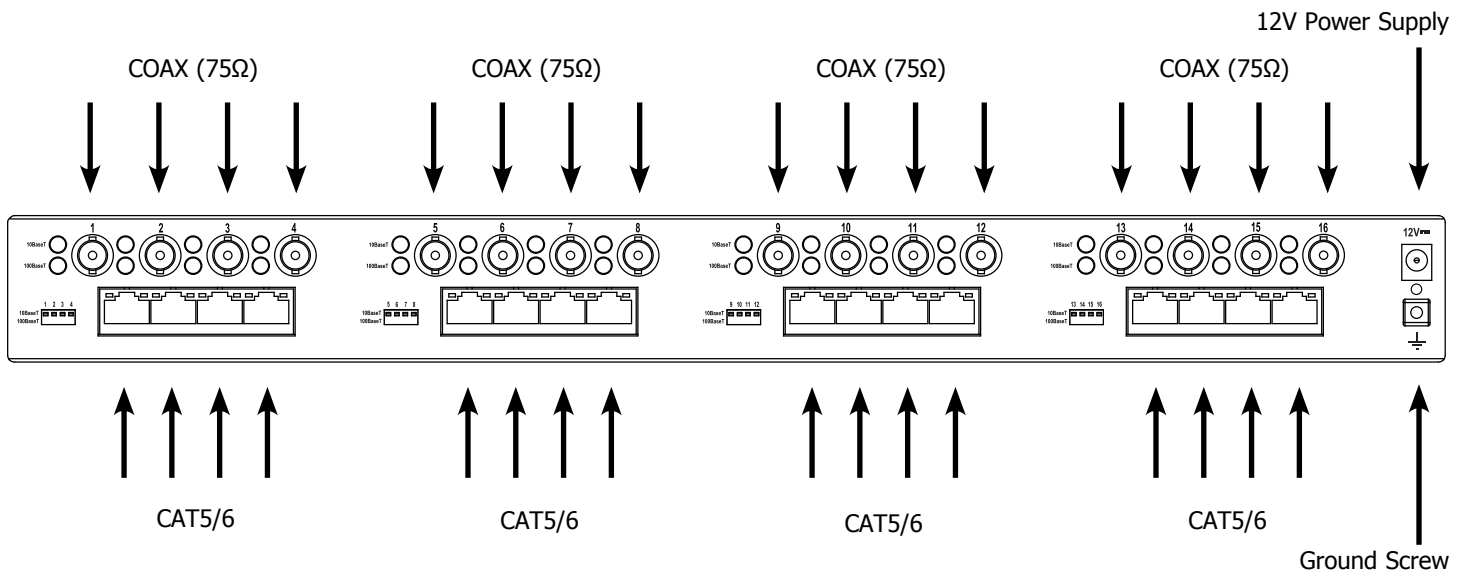
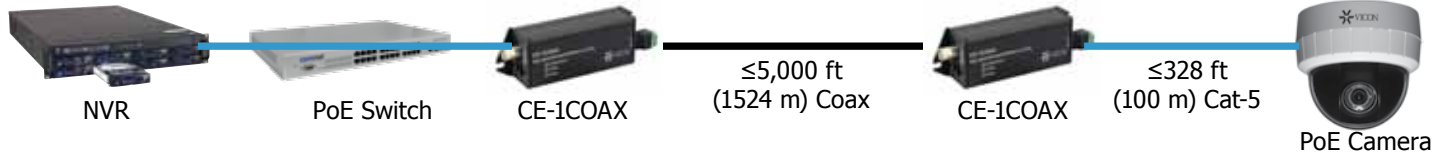


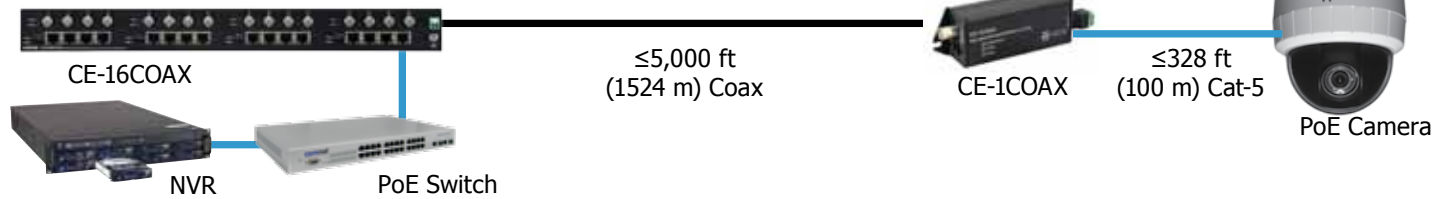
FIGURE 6 – POSSIBLE ETHERNET CONFIGURATIONS

Multiple Configurations are possible. Consult Vicon Sales Engineer.

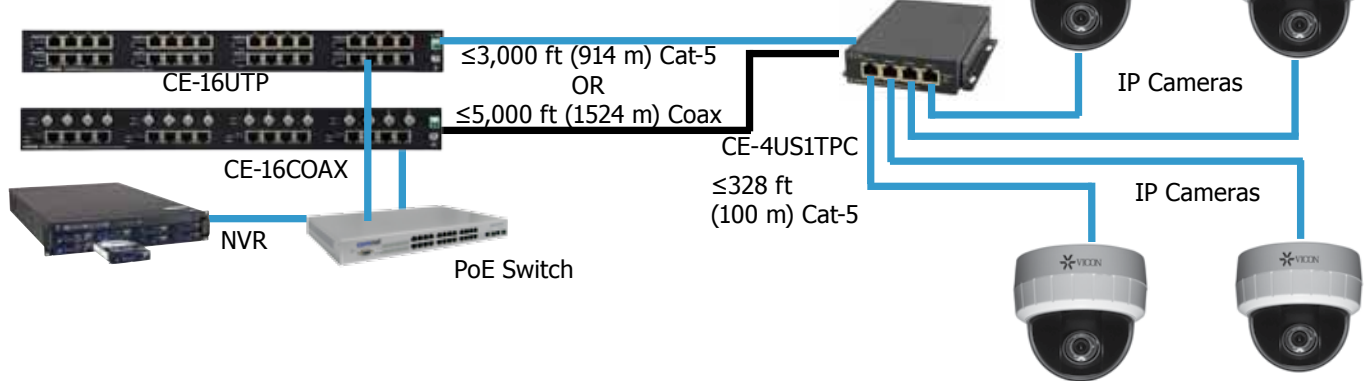
Single Port Copper over Coax



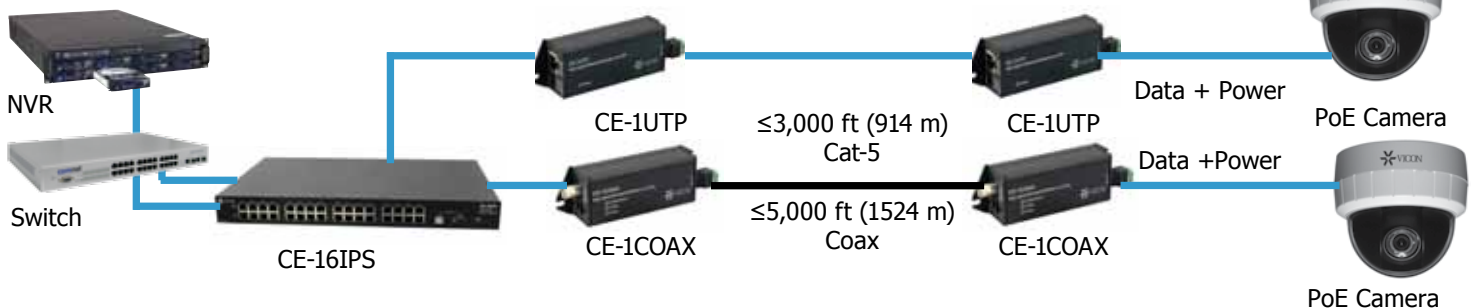
Multi Port Copper over Coax



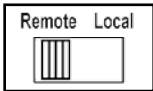
Copper 4-Port Switch Extended over UTP or Coax



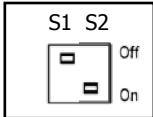
Copper Managed High Power Midspan



**IP CAMERA-END  
INSTALLATION (CE-1COAX)**



Set the Remote/Local DIP switch to "Remote" mode.



Set the S1 DIP switch to the appropriate rate based on the maximum data rate.  
OFF = 10BaseT; ON = 100BaseT

Set the S2 switch to "On" for Master.

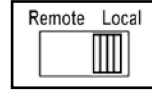
For systems not utilizing PoE, connect the 12 VDC or 24 VAC power supply to the power connector of the CE-1COAX. A power adapter connector is provided to simplify connection.

If there is no external power source connected, the CE-1COAX will try to detect PoE.

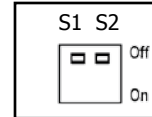
Connect the IP camera RJ-45 connector to the 10/100BaseT Ethernet port of the CE-1COAX using a standard Cat5/6 cable, 100 m length (max).

Connect one end of the long coax cable to the BNC connector of the CE-1COAX.

**ETHERNET SWITCH/NVR-END  
INSTALLATION (CE-(X)COAX)**



Set the Remote/Local DIP switch to "Local" mode.



Set the S1 10/100BaseT DIP switch to the appropriate rate based on the maximum data rate.  
OFF = 10BaseT; ON = 100BaseT

OFF = 10BaseT; ON = 100BaseT

Be sure the S2 switch to is set to "Off" for Slave.

Note: The 4, 8 and 16 channel units are preset to Slave/Local mode. No adjustment required.

Connect the 12 VDC or 24 VAC power supply to the power connector of the selected CE-(X)COAX. If there is no external power source connected, the selected CE-(X)COAX will try to detect PoE.

Connect the IP camera RJ-45 connector to the 10/100BaseT Ethernet port of the selected CE-(X)COAX using a standard Cat5/6 cable, 100m length (max).

Connect one end of the long coax cable to the BNC connector of the selected CE-(X)COAX.

The Link LED on the 10/100 Ethernet connector should be "ON" to indicate proper connection between the switch and the selected CE-(X)COAX.

The Traffic LED on the Coax side should be "ON" and flashing to indicate proper connection.

The Link LED (Red for 100BaseT, Green for 10BaseT) will be "ON" and not flashing to indicate confirmed connection between the CE-COAX and selected CE-(X)COAX extenders.

FIGURE 7 – LED INDICATORS

	POWER	TRAFFIC (Extended)	10/100BaseT
GREEN	–	–	Connection is OK, 10BaseT mode
YELLOW	–	–	–
RED	Power is on	Flashing, Traffic present	Connection is OK, 100BaseT mode
OFF	Power is off	No traffic	–

FIGURE 8 – RJ-45 LED INDICATORS

	RJ-45	
	TRAFFIC (Standard)	Link
GREEN	Flashing – Connection is OK with traffic	–
YELLOW	–	Connection is OK
RED	–	–
OFF	No connection	No connection

INSTALLATION CONSIDERATIONS

The CE-1COAX and CE-4COAX are supplied as standalone modules. The CE-8COAX and CE-16COAX can be installed as standalone modules or can be rack-mounted with the addition of the provided 19-inch rack-mounting ear brackets.

FIGURE A

Dimensions are for the CE-1COAX standalone module

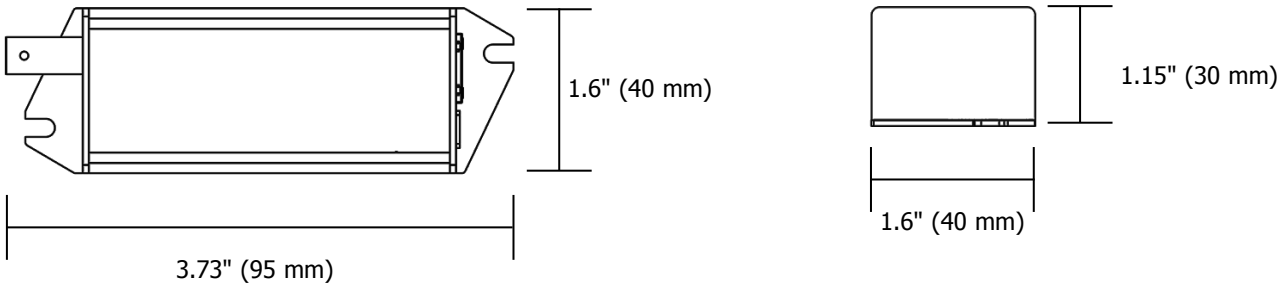


FIGURE B

Dimensions are for the CE-4COAX standalone module

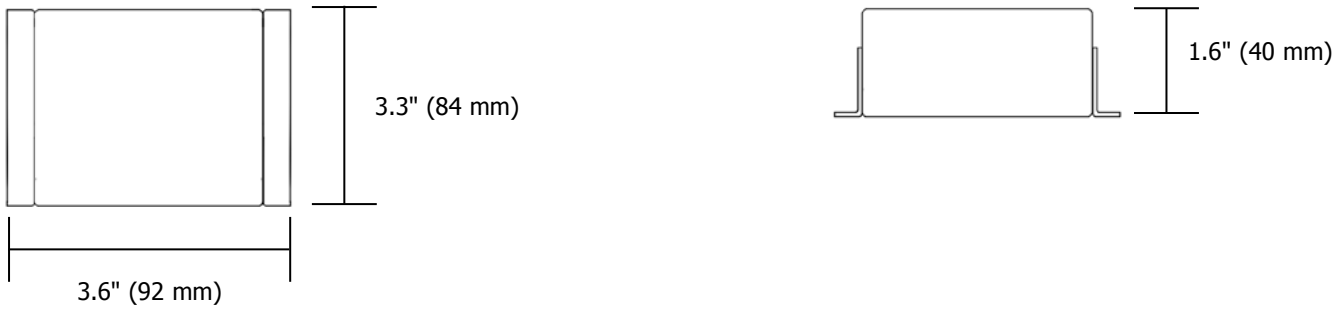
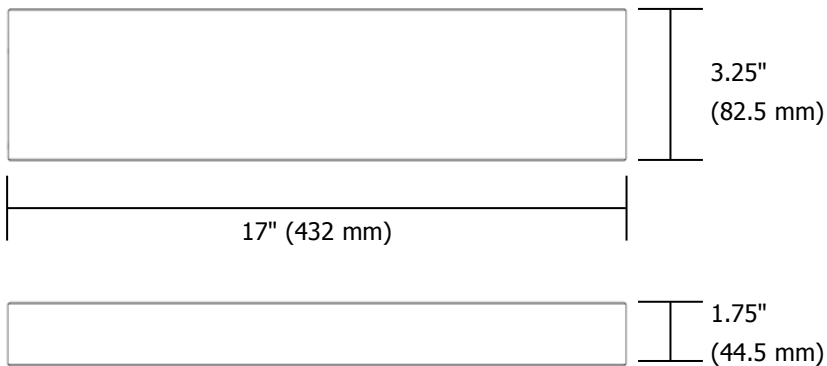


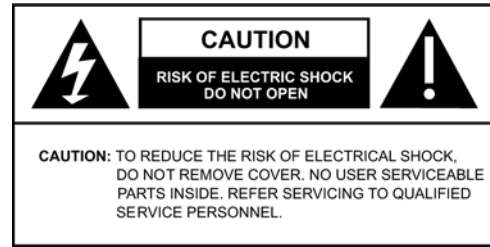
FIGURE C

Dimensions are for the CE-8COAX and CE-16COAX modules



# IMPORTANT SAFEGUARDS

- Read and keep these directions.
- 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 the equipment.
- DO NOT install the unit in a place where the operating ambient temperature exceeds 75°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 (including DVRs) that produce heat.
- Protect the power cord from being walked on or pinched, particularly at the 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, do not operate normally or has been dropped.
- The main plus 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 through an AC to DC power supply.

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

**WARNING:** For non-PoE applications, unit is to be connected to a mains socket outlet through a Listed Class I power supply rated 12 VDC or 24 VAC.



89 ARKAY DRIVE | HAUPPAUGE, NY 11788 | USA  
T: 631.952.2288 | F: 631.951.2288 | TOLL FREE: 800.645.9116  
WEB: [www.vicon-security.com](http://www.vicon-security.com)  
UK: +44 (0)1489 566300

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