

Model **EL4500C** (for use with Coaxial cable)

Includes one ET4500C Transmitter
and one ER1500C Receiver

Installation and Operation Manual



Reduce risk of fire or electrical shock. Do not expose this product to rain or moisture.

Note: This installation should be made by a qualified service person and conform with local codes.

Introduction

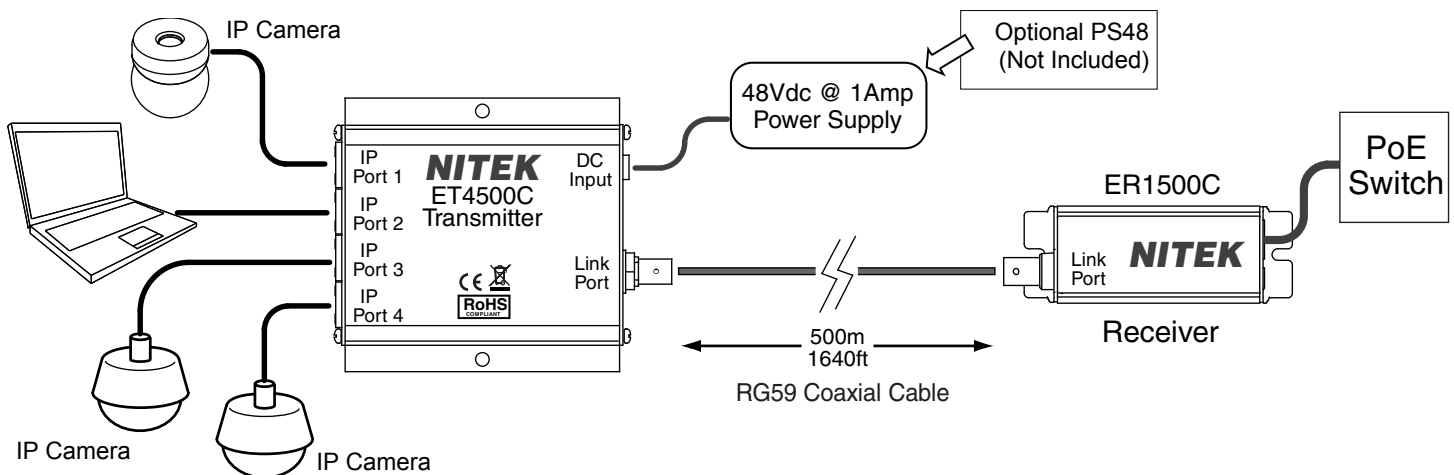
The EL4500C system uses a four channel transmitter and a single channel receiver to extend Ethernet & PoE. The EL4500C can be used on new or existing cable and is designed to greatly extend the distances to which IP cameras and network devices can operate. In addition to network communication the EL4500C is ideal for PoE applications. It allows all power to flow from the head end for most camera applications. In unique cases where high power PoE is needed it can inject up to 25 watts of power at the transmitter end.

TYPE 1 Installation

Install EL4500C with a PoE Source Switch and IP Cameras

Refer to the diagram below when installing. A common topology involves a length of existing coax cable up to but not exceeding 1,640ft / 500m, the EL4500C transmitter and receiver pairs (ET4500C & ER1500C), an IP camera or other peripheral network device (both universally referred to as the Power Device or PD), and a 3rd party PoE network switch or Power Sourcing Equipment/PSE. Refer to the PoE power chart to determine maximum range for a PoE camera.

The method for facilitating Ethernet communication and PoE over RG59U cable starts with connecting the ER1500C to the Power Sourcing Equipment, usually a switch (RJ45-to-RJ45) via a CAT5e/CAT6 patch cable. The ER1500C coax BNC connector enables connectivity to the length of RG59U coax cable at the head end. The IP camera interfaces with the ET4500C via RJ45 and a CAT5e/CAT6 patch cords. The output of the ET4500C intern connects to the length of RG59U cable by its BNC connector at the camera end. Power from the PSE provides operational PoE for both EL4500C units and the camera.



Patent Pending



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TYPE 2 Installation

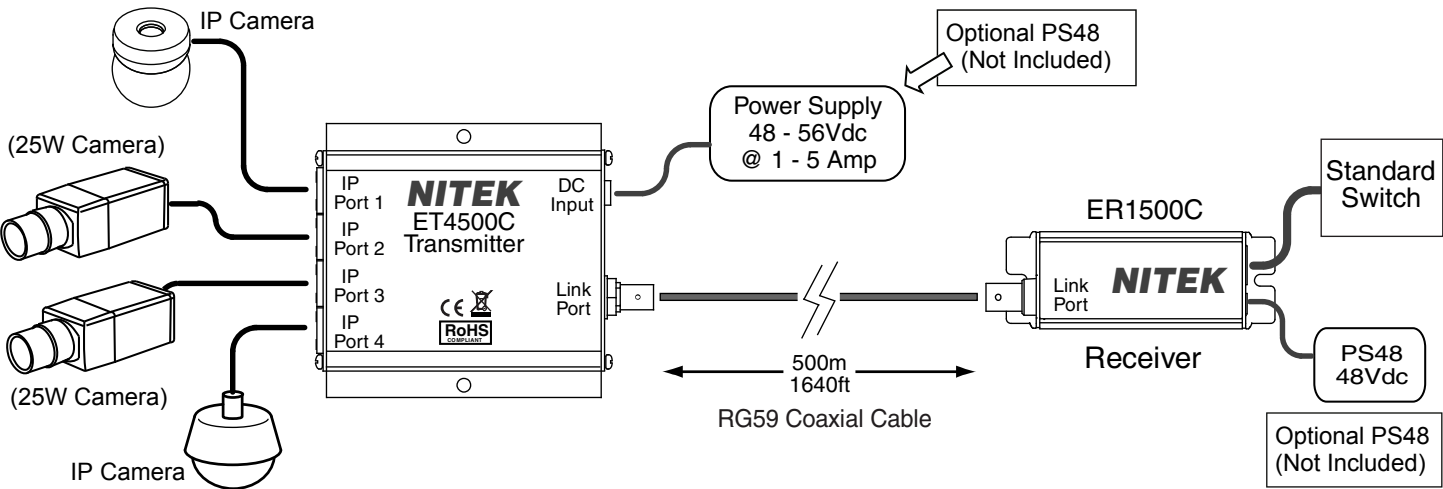
Install EL4500C for Powering High Power PoE Cameras

Refer to the diagram below when installing. When installing without a PoE source device, the ER1500C can be powered directly and will provide power for both the transmitter and PoE camera. The ET4500C can be used with a PS48 power supply (available separately from Nitek) to power cameras up to 25 watts. When installing without a PoE source device, the ER1500C must be powered directly.

A common topology involves a length of existing coax cable up to but not exceeding 1,640ft / 500m, the EL4500C transmitter and receiver pairs (ET4500C & ER1500C), an IP camera or other peripheral network device (both universally referred to as the Power Device or PD), and a 3rd party PoE network switch or Power Sourcing Equipment/PSE. The PD and PSE must both be either 802.3af or 802.3at compliant. That is requiring or producing no more then 15.4 W 48VDC @ 350mA of 802.3af up to 25.5W 60VDC @ 600mA of 802.3at PoE+ power for proper attached device operation.

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Upon final power up the devices will under go initialization and auto-configuration processes (see LED Indicator chart) which may take a number of seconds, time variations are device/installation/topology parameter dependent, to complete before PoE and Ethernet communication commences. For optimal performance referring to the PoE Distance Chart and adhering to the IP camera operational specifications is recommended.



LED INDICATORS				
Connector	LED	OFF	ON	FLASHING
Network Port	PoE Out	No PoE Power Out	PoE Power Good	
	Link Status	No Ethernet Link	Ethernet Link Good	
Link Port	Power	No Power	Power Good	
	10/100	No Link	100Mb	10Mb