

## Model: UT-POE60-48T

(Product Name: Power over Ethernet POE lightning protection products)

# User manual



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## 1. Overview

UT-POE60-48T is a lightning protection product customized for digital cameras to protect POE camera power supplies and network lines from lightning electromagnetic pulses, induced overvoltage, and operating overvoltage. With characteristics of high integration, low insertion loss, low residual voltage, easy installation and lightning protection, it is widely used in various field, such as public security, traffic monitoring.

## 2. Safety guide

- Only professional and technical personnel are allowed to install, maintain and replace lightning protection products according to this manual.
- Installation must be carried out in the case of power failure.
- Please check the working status of the lightning arrester regularly, and replace it in time if the lightning arrester fails.
- Surge protector and circuit breaker should keep a distance of 3-18cm.

## 3. Specifications

Model	UT-POE60-48T
Operating voltage (Un)	48VDC
Maximum voltage (Uc)	55VDC
Nominal discharge current (In)	3kA
Maximum flow capacity (Imax)	5kA
Protection level (Up)	150V
Transmission rate	1000Mbps
Response time	1ns
Insertion loss	0.5dB
Connector form	RJ45
rated current	1.5A
Number of protection channels	1/2,3/6,4/5,7/8
failure mechanism	Short circuit or disconnection of line to ground
Mechanical part	
Dimensions	120*130*70mm
Housing Material	flame retardant plastic
protection level	IP66
Work environment	Temperature -40~+85℃, relative humidity≤95%(25℃)
Installation	wall or horizontal
grounding	Lug

## 4. Installation environment

- Please make sure it is indoors or in a waterproof box.
- Avoid direct sunlight.
- Avoid installing in places with severe vibration, it should be installed on DIN35mm rail.
- Make sure that the working voltage of the surge protector complies with the mains operating voltage.
- Make sure that the lightning protector can be grounded reliably, and the power frequency grounding resistance is lower than 10 ohms.

## 5. Installation

Tools: Phillips screwdriver, flat-head screwdriver, wire stripper, etc.

Auxiliary material	Specification	QTY	Function
cable	Five types of shielded twisted pair 15-30CM	1	Connect the SPD to the camera network
PE cable	≥1.5mm <sup>2</sup>	1	Nearby grounding

- Prepare/a network cable for connecting the surge protector and POE power supply equipment.
- Fix the lightning protection equipment in the waterproof box.
- Complete the connection between the SPD signal output OUT port and the device.
- Complete the connection between the SPD signal input NI port and the equipment surge tester.

## 6. Appearance



## 7. Malfunctions

Malfunctions	Reasons	Solutions
There is no signal after the SPD is installed	SPD transmission performance is not up to standard.	Replace SPD.
	The transmission distance exceeds the maximum allowable range.	Make sure that the signal line connections between devices are within the allowable range of the standard.
	The surge protector does not match the cable impedance or transmission rate.	Replace SPD.
After the ground wire of the lightning protector is grounded, the signal is blocked or there are snowflakes on the screen; after the ground wire is not grounded, the video screen is normal or there is no signal	Ground voltage fluctuates too much.	Ground network transformation, if the signal is not connected, it means that the lightning protection device has been burned out, and the lightning protection device needs to be replaced.
After the lightning protector has been running for a period of time, the monitor has no picture and the signal is blocked. After the lightning protector is removed, the monitor shows a picture and the signal is restored.	The lightning protector is damaged by lightning or other reasons.	Replace SPD..