

Model: UT-N2XXG series

(Product Name: Gigabit network signal lightning protection)

User manual



UTEK TECHNOLOGY (SHENZHEN) CO., LTD.

Add: Room 1001, Building 7, Skyworth Innovation Valley, No. 8, Tangtou No.1 Road,
Shiyan Old Street, Bao'an District, Shenzhen

Tel: +86-755-81202008

Fax: +86-755-27886083

Http: www.uotek.com

1. Overview

UT-N2XXG series gigabit network lightning protection series products are mainly used in TCP/IP protocol communication network to protect electrical and electronic equipment signal lines from the influence of lightning electromagnetic pulse, induced overvoltage and operation overvoltage, and are widely used in communication and security monitoring , transportation, industrial control and other fields of communication line protection. This series of products has the characteristics of high transmission rate, extremely fast response time, low insertion loss, low residual voltage, etc., and has a good lightning protection effect without affecting the normal communication of the equipment.

2. Specifications

Model	UT-N201G	UT-N204G	UT-N208G	UT-N216G	UT-N224G
specification					
Operating voltage (Un)	5V				
Nominal discharge current (In)	3kA				
Maximum flow capacity (Imax)	5kA				
Protection level (Up)	20V				
Transmission rate	1000Mbps				
Response time	1ns				
Insertion loss	0.5dB				
Connector form	RJ45				
protection line	1/2, 3/6, 4/5, 7/8				
Number of protected circuits	1	4	8	16	24
Dimensions	80*40*32mm	83*74*29mm	155*95*28mm	485*86*45mm	
protection level	IP20				
rated current	0.5A				
Housing Material	Galvanized steel/aluminum alloy				
Installation	The surge protector is connected in series between the protected device and the signal channel				
failure mechanism	The communication line is short-circuited to ground or the communication line is disconnected				
operating environment	Temperature -40~+85℃, relative humidity≤95%(25℃)				

3. Installation environment

- Please ensure that it is indoors or in a waterproof box.
- Avoid installing in severe vibration places.
- Ensure that the transmission rate of the communication network matches the SPD.
- Ensure that the lightning arrester can be reliably grounded, and the power frequency grounding resistance is lower than 10 ohms.

4. Accessories

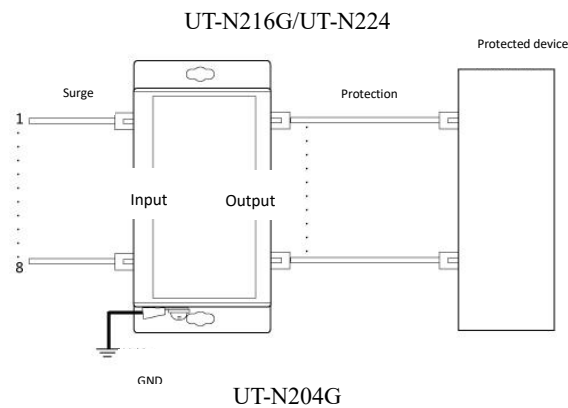
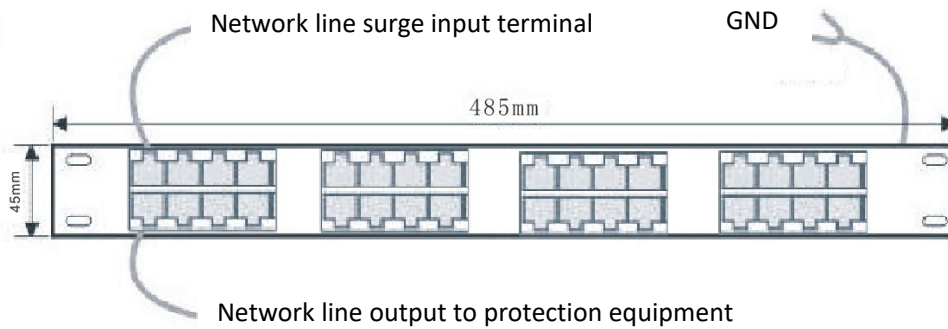
Tools: Phillips screwdriver, flat-head screwdriver, wire stripper, etc.

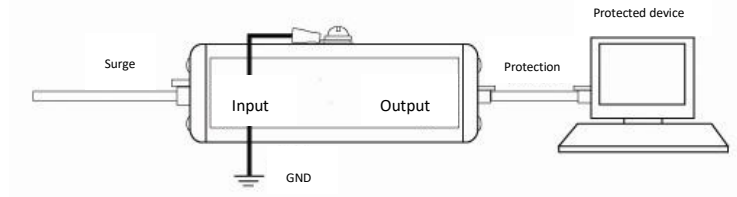
Supplementary material	Specification	QTY	Function
Cable	5 types shielded twisted pair 15-30CM	1	Used to connect the surge protector to the protected equipment
PE cable	$\geq 1.5\text{mm}^2$	1	Nearby grounding
screw	M4	2	Rack mount

5. Installation

- Install the lightning arrester horizontally on the rack.
- Intercept 24 15-30CM network cables, and connect the 24 output ports on the rear side of the lightning protector to the 24 (16) input ports of the switch with jumpers.
- Connect the 24 (16) network cables of the front-end equipment to the input port of the lightning protector, IN to the surge input port, and OUT to the protected device.
- Ground the ground wire of the lightning arrester nearby.

6. Wiring diagrams





UT-N201G

7. Malfunctions

Malfunctions	Reasons	Solutions
Packet drop or network disconnection occurs after the SPD is installed	SPD insertion loss is too large	Replace the SPD
	The transmission distance exceeds the maximum allowable range	Ensure that the network cable connection between communication devices does not exceed 90M
	Transfer rate mismatch	Determine the transmission rate and choose a matching surge protector
After the ground wire of the SPD is grounded, packet loss or network failure occurs; after the ground wire is not grounded, the communication is normal	Ground voltage fluctuates too much	Ground network transformation
After the lightning protector runs for a period of time, there will be packet loss or network failure	The lightning protector is damaged by lightning or other reasons	Replace the SPD