

**Paperless Datasheet**

Going green and protecting environment is manufacturers' responsibility. WatchfulEye products have the links of downloading data sheet on its enclosure:  
<http://datasheet.watchfuleyesolutions.com/US121012.html>

**Description**

WTH-SG/RJ45 Series surge protective devices are applied to surge protection for data communication systems.  
 WTH-SG/RJ45 is connected in series in CAT6 network cables, compatible with 10/100/1000/10000 (10G) Base-T Ethernet systems, protecting the equipment which are connected to the network (e.g. computers, routers, PoE devices, etc.) against damages by over-voltage surge.  
 (Standards compliance: IEC61643-21, UL497B, IEEE 802.3af PoE/802.3 at PoE Plus)

**Technical Data**

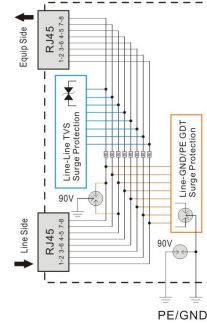
Model	WTH-SG/RJ45
Ordering code	US121012
Nominal operating voltage (Un)	2.8V(Ethernet)/48V(PoE)
Max. continuous operating voltage (UC)	3V(Ethernet)/60V(PoE)
Nominal Discharge Current (In @8/20µs)	3kA (line to line)
Max. Discharge Current (Imax @8/20µs)	20kA (line to GND/PE)
Voltage protection level (Up @line-line)	50V @ 3kV (1.2/50)
Voltage protection level (Up @line-GND/PE)	700/800V @ 3kV (1.2/50)
Max Line Current	600mA (PoE)
Data Rate	100/1000Mbps
Bandwidth (3db) per pair	>250MHz
Insertion Loss	<0.5dB @100MHz
Pairs Protected	1-2,3-6,4-5,7-8
Protective Element	GDT, TVS
Voltage Breakdown Range, Vdc @ 100 V/s	2.4-188 (L-L) / 72-108(L-G)
Impulse Voltage Range, Vdc @ 100 V/µs	<1000
Response Time (tA)	<100ns (line-GND/PE), <1ns (line-line)
Connection mode	RJ45
Temperature Range	- 40 ° to 176 °F (-40 ° to 80 °C)
Relative Humidity	0% to 95% noncondensing
Maximum Operating Altitude	10,000 feet (3000m)
Cross-sectional area of earth lead	3mm² multistranded / flexible
Stripping Length Contacts	0.25inches (6-7mm)
Terminal Screw Torque	Max. 0.25Nm
Protection Rating (IP Code)	IP 20
Surge Life at 0.5kA (8/20µs)	>2000 events
DIN Rail EN60715	35mm top-hat rail
Housing Material	Thermoplastic, UL94 V-0
Net Weight Per Unit	0.16Lb (71g)
Package Dimension (WxDxH)	0.9"×2.0"×3.1" (24mm×51mm×78mm)

**Installation Instruction**

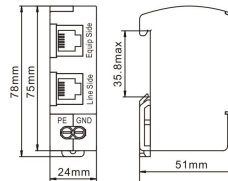
The surge protective devices shall be employed in a Listed enclosure or closet that is only accessible to technicians or service personnels.



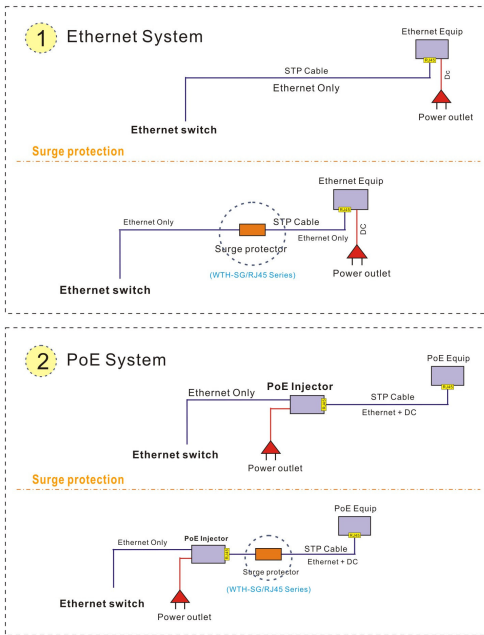
**Connection Diagram**



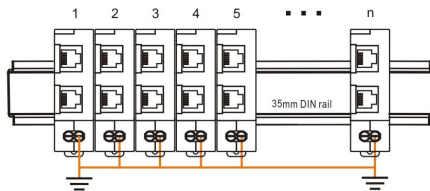
**Dimensions**



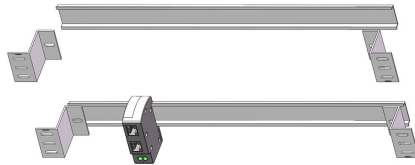
**Application**



**Combination of multiple units of the same model**



**19" Rack Mounting Installation**



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