MY2020

Professional Lighting Protection

NTS-protect

Surge/Overvoltage Arrestors

- TESTED AT METROLOGY NMI
- LOW LATENCY 630ps - 640ps
- UTRA FAST SWITCHING <1ns
- SUITABLE RJ45 protection for
  - NTS-Antenna
  - NTS-5000
  - NTS-4000
  - NTS-3000
  - I/O Ethernet
  - I/O RS232/485
- JITTER less than 10ps @ 1σ
- FREQ. RANGE 0-100MHz Cat5
- FREQ. RANGE 0-250MHz Cat6
- SUPPORTS Ethernet PoE
- COMPATIBLE PTP EEE1588
- TEMPERATURE -55C to +85C
- VANDAL RESISTANT CLASS
- STD. IEC61643-21 61024-1
- CERTIFICATED UL E311081
- PROTECTION 550V AC/DC
- CURRENT MAX 10kA AC/DC
- FREQ. AC MAX 250MHz
- TRUSTED CHIP SUPPLIERS
- MOUNTING DIN-rail/Rack"19
- LAB TESTED 1KA for 350us
- CLASS IP20, CE, RoHS

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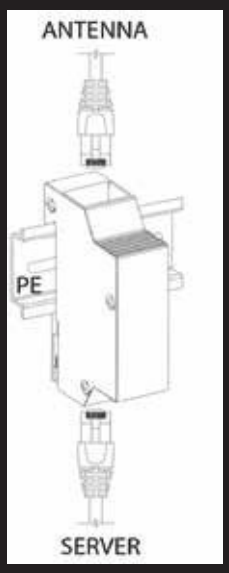

NTS-protect mounting

As the NTS-antenna is a roof mounted device to ensure clear view of the sky. Therefore, i t is likely to be exposed to lightning strikes. The lighting protection NTS-protect is set of 1 or 2 surge arresters mounted to protect and to isolate your NTS-server from antenna upon bad weather conditions. The NTS-protect has been designed so to be in compliance with regulation No.75 Journal of Laws, June 15, 2002, items 180, 183, providing that wiring systems should secure against switching overvoltage and lightning surge, and that voltage limiters shall apply thereto. There are 3 configurations:

1) NTS-protect-1 (std) - the single arrester
2) NTS-protect-2 (mid) - the double arresters

NTS-protect-1 (1x arrester system for rack”19 cabinet only)
The single arrester NTS-protect-1 is recommended as a MIN standard. In 99% of cases this solution is more than enough. It basis upon the rule of voltage compensation in accordance with **IEC61024-1** std. It stipulates upholding safe levels of over-voltage that will not damage the insulation in all prote- cted electrical circuits of the NTS family servers. The NTS-protect-1 is mounted on the back of rack"19 cabinet and should be well grounded to PE.

NTS-protect-2 (2x arresters system for rack”19 + building entrance protection)
The NTS-protect-2 includes NTS-protect-1 plus one extra arrester. The 2nd arrester should be installed at the building entrance. It should be well grounded too. It improves 1% security compering to NTS-protect-1.

Metrologically NMI tested for latency (delay) and jitter, NTS-protect offers best performance. Tests were performed basis on cesium atomic clocks 5071A at Polish Office Of Measures in February 2020.

Breaker view

NTS-protect includes Weidmuller breaker:
NTS-protect-1 pcs1 type 1348590000
NTS-protect-2 pcs2 type 1348590000
DIN-rail bus for rack”19 cabinet pcs. 1
Mounting accesories

Technical Specification

Delay time	630 ps (picoseconds)
Housing material	METAL
Width	19 mm [0.748 inch]
Height	75 mm [2.953 inch]
Depth	46 mm [1.811 inch]
Wet weight	137g
Humidity	0..95%
Protection degree	IP20
Operating temp.	-55C +85C
Storage temp.	-55C +85C
UL Certificate	E311081
Standard	IEC61643-21, 61024-1
DIN-rail	TS 35 x 15; TS 35 x 7.5
Connectors	RJ45 (both sides), Eth Cat. 6
Nominal voltage operating	48VDC
Voltage type support	DC/AC
Voltage breakdown L-G	72-120V
Current Imax (Surge)	10kA
Response (switch) time	< 1ns (less than 1 nanosecond)
Volume resistance	< 0.1Ohm
Wire-2-PE	1kA according: IEC61643-21

Lab testing at NMI-GUM

Declaration Of Conformity

This product has been manufactured by Weidmuller and it is approved for using with ELPROMA NTS Time Servers. The manufacture attests, in sole-responsibility, that the object of the declaration described above is in conformity with the essential requirement of directive(s):

Description	*Directive*	*Weidmuller file No.*
Low Voltage Directive (LVD)	2014/35/EU	ref. L 96/357-374
Electromagnetic Compatibility (EMC)	2014.30.EU	ref. L 96/79-106
RoHS Directive (RoHS)	2011/65/EU	ref. L 174/88-110

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Manufactured by Weidmuller GmbH for ELPROMA Elektronika Sp. z o.o.
The NTS is trademark of ELPROMA Elektronika Sp. z o.o.

Made in Germany (EU)