Professional Lighting Protection

Surge/Overvoltage

Arrestors

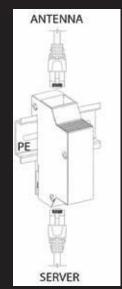
TESTED AT METROLOGY NMI
 LOW LATENCY 630ps - 640ps
 UTRA FAST SWITCHING <1ns
 SUITABLE RJ45 protection for

- 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

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- 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





NTS-protect mounting



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 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.

Technical Specification

Delay time 630 ps METAL Housing material 19 mm Width Height 75 mm Depth Wet weight 137g Humidity 0..95% Protection degree IP20 Operating temp. Storage temp. **UL** Certificate Standard DIN-rail Connectors Nominal voltage operating 48VDC DC/AC Voltage type support Voltage breakdown L-G Current Imax (Surge) 10kA Response (switch) time Volume resistance Wire-2-PE

630 ps (picoseconds) METAL 19 mm [0.748 inch] 75 mm [2.953 inch] 46 mm [1.811 inch] 137g 0..95% IP20 -55C +85C -55C +85C E311081 IEC61643-21, 61024-1 TS 35 x 15; TS 35 x 7.5 RJ45 (both sides), Eth Cat. 6 48VDC DC/AC 72-120V 10kA < 1ns (less than 1 nanosecond) < 0.10hm 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):

Directive	Weidmuller file No.
2014/35/EU	ref. L 96/357-374
2014.30.EU	ref. L 96/79-106
2011/65/EU	ref. L 174/88-110
	2014/35/EU 2014.30.EU

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