

## PRODUCT DATA SHEET

### SURGE PROTECTIVE DEVICES (SPDs)

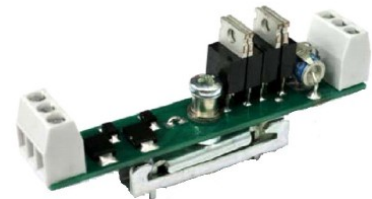
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**Brand Name: DataTron PCB 05**
**Application: Low voltage digital & analogue signals**

#### Description

Surge protective device, suitable for the protection of electrical and electronic equipment, operating at low voltage digital and analogue signals. It is providing protection, to 1 cable pair and shield, against external transients and surges caused by lightning, induction and switching overvoltages. Especially designed to be installed in switchboards and control panels with limited space and where a numerous of incoming and outgoing cables are connected, such as interfaces RS 485 and RS 422. Quick and easy installation by clipping on DIN rail. Thanks to its innovative design with 3 protection levels (GDT + TVD Diode + Zener) it succeeds stable residual voltage, regardless the value of the surge current. In contrast with the common SPDs for signals protection, DataTron PCB coordinates the 3 protection levels through the use of MOSFETs, which are limiting the incoming current between the protection levels, ensuring this way longer life duration of the more sensitive protection levels and thus of the surge protective device.



#### Protection type EN / IEC 61643-21

- C1, C2, C3

#### Technical characteristics

Number of Poles	2 + GND
Number of protected pairs	1 + GND
Connection between terminals	L <sub>1</sub> – L <sub>2</sub> , L <sub>1</sub> – GND, L <sub>2</sub> – GND
Maximum operating voltage, U <sub>c</sub>	5 V
Maximum operating current, I <sub>L</sub>	1 A
Maximum signal frequency, F	10 MHz
Insertion losses	<0,35 dB @ 10 MHz / <-3 dB @ 23 MHz
Series line resistance (input – output), R	1,5 Ω
Line capacitance (input – output), C	<10 nF
I <sub>n</sub> , C2 test, (8/20μs), 2P / 1P	10 kA / 5 kA
U <sub>p</sub> , (at I <sub>n</sub> ) L–L & L–GND	<178 V
U <sub>p</sub> , C3 (at 1 kV) L–L & L–GND	<10 V
Discharge capability of 100 A (10/1000μs), 1P	x300 times
Response time, t <sub>A</sub>	1 ns
Main circuit	GDT + TVS diode + Zener + MOSFET
Connection to network	In line
Protection level of housing	IP00
Dimensions WxHxD	16,2x22x87 mm
Operating temperature, θ	-40°C ÷ +80°C
Relative humidity	5% ÷ 95%
Maximum conductor for terminal	0,75 – 1,5 mm <sup>2</sup>
Conductor terminals tightening torque	0,4 Nm
Rail mounting	DIN-3 (TS-35/EN50022) & Busbar
Housing material	Thermoplastic V-0
Certification	STR by OVE, CE
Conformity with	LVD 2014/35/EU
Installation only by qualified electrician	IEC 60417 – 6182

#### ELEMKO management systems

- ISO 9001
- ISO 14001
- ISO 45001

#### Country of Origin

Greece

**Unit: piece / Package: 1 piece**

We reserve the right to introduce changes in the component due to technical evolution.