



Surge Protection Device (SPD) for RS-485 with 5V, 12V or 24V control signal lines is designed, fabricated and tested according to the IEC61644 standard and Q/DK04-1999 industrial standards.

The product help prevent damages to sensitive electronic equipment due to differences in ground potential, power surges and area lightning strikes. It can be easily installed on systems requiring wired remote sensing and telemetry without any losses of signal quality.

- 2- or 4-core line surge protection against transcient voltage induced by lightnings, industrial noises, etc.
- Core components are selected based on high reliability, multi-level protection and depressed residual voltage.
- Low capacitance design, excellent transmission performance, fast response time and long life expectancy.
- Suitable for all remote minitoring systems using RS-485 interface lines. It can effectively reduce the software and hardware failures caused by interference.

Technical Specifications

MODEL	SP-5V/RS485/2P	SP-12V/RS485/4P	SP-24V/RS485/4P
Operating Voltage (Un)	5V	12V	24V
Voltage Protection Level (Up)	≤15V	≤20V	≤35V
Rated Current	300mA		
Working Frequency	10MHz		
Insertion Loss (dB)	≤0.2dB		
Nominal Discharge Current (8/20µ s) (In)	5KA		
Max. Discharge Current (8/20μ s) (Imax.)	10KA		
Limit voltage (V)	≤40V		
Response Time:	≤1ns		
Interface Model	2-Pole	4-Pole	4-Pole
Protected Core	1~2	1~4	1~4
Working Environment	Temperature: -25°C +70°C; Relative Humidity: <95%		
Dimension LxWxH	90x25x25mm	90x45x25mm	90x45x25mm
Weight	0.08KG	0.13KG	0.13KG

Note: Due to the policy of continued product improvement, specifications are subject to change without notice.



Product Installation

- 1. The lightning protection device is in series installed between signal channel and the equipment protected, the output termination is connected with the equipment protected.
- 2. All wires must be solid and connect by electric. Grounding line: BVR≥2.5mm².
- 3. Lightning proof grounding should be consistent with lightning protection regulatory requirements; grounding wire should be as thick and short as possible, resistance should be less than $4\ \Omega$.



