



Surge Protection Device (SPD) for RS-232 (9-pin, 12-pin and 25-pin) interface 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.

- Line surge protection against transient voltage induced by lightnings, industrial noises, etc.
- Core components are selected based on high reliability, multi-level protection and depressed residual.
- Low capacitance design, excellent transmission performance, fast response time and long life expectancy.
- Suitable for all remote monitoring systems using RS-232 interface lines. It can effectively reduce the software and hardware failures caused by interference.

## Technical Specifications

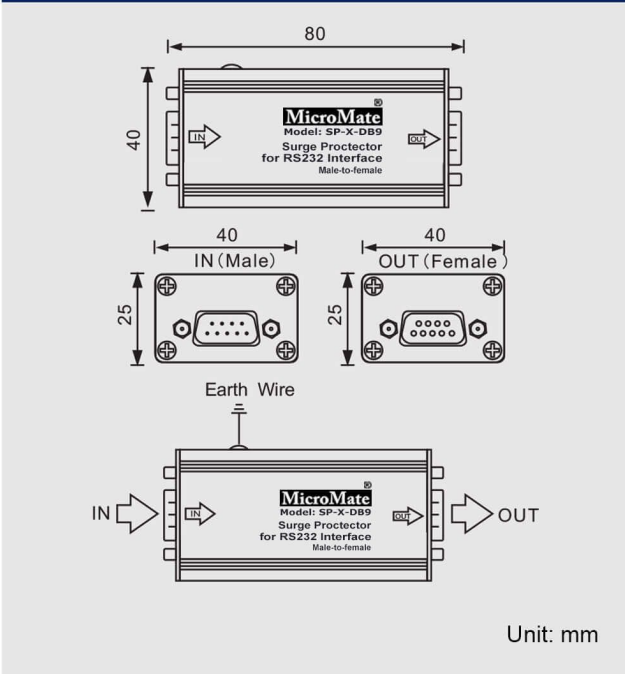
MODEL	SP-X-DB9	SP-X-DB15	SP-X-DB25
Operating Voltage (Un)	12V	12V	12V
Max. Continuous Operating Voltage (Uc)	18V	18V	18V
Transmission rate (bit / s)	1M	1M	1M
Insertion Loss (dB)	≤0.2 dB	≤0.2 dB	≤0.2 dB
Nominal Discharge Current (8/20μ s) (In)	5KA		
Max. Discharge Current (8/20μ s) (Imax. )	10KA		
Limit voltage (V)	≤40V		
Response Time:	≤1ns		
Interface Model (Male-to-Female)	DB9	DB15	DB25
Protected Core	1~9	1~15	1~25
Working Environment	Temperature -25°C +70°C; Relative Humidity<95%		
Dimensions (mm)	80 x 40 x 25	80 x 40 x 25	70 x 70 x 25
Weight	0.09KG	0.10KG	0.11KG

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

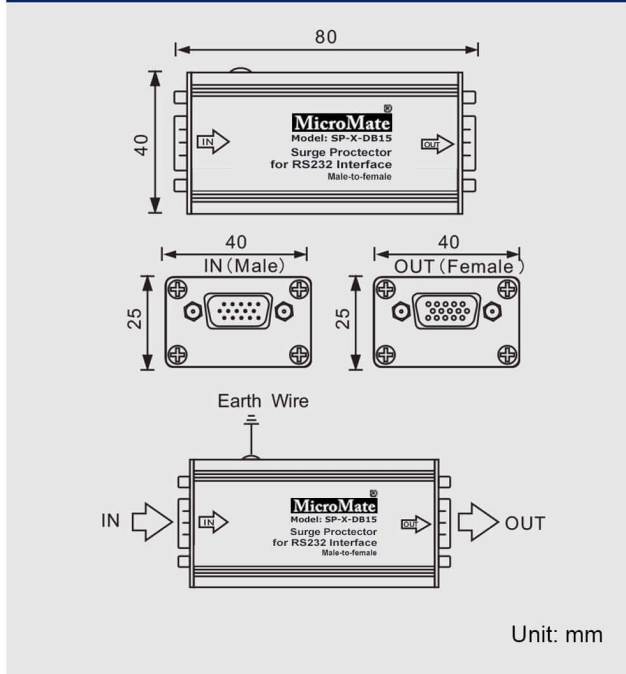
## Product Installation

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:  $BVR \geq 2.5\text{mm}^2$ .
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  $4 \Omega$ .

### Dimensions and Installation Diagram



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