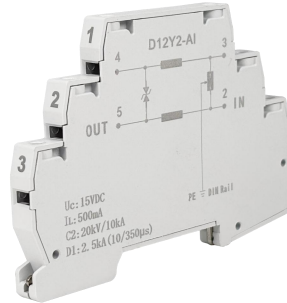


Special designed SPD for Industrial Control Signal System, AI/DI Signal Surge Protective Device



Description

The product is mainly used for lightning protection of industrial control signal lines and is widely used in industrial control systems. The SPD is connected in series in the signal loop to prevent surges from invading equipment along the signal line and causing damage to the equipment. Suitable for intrinsically safe signal transmission systems with line-to-ground isolation. It can be applied to 0(4)~20mA, 0~10V analog and switch (digital) signal protection, and is suitable for 2-wire, 3-wire and 4-wire thermal resistors, thermocouples, RS-232, RS-485, MODBUS, PROFIBUS DP, CAN, pressure transmitter, valve positioner, transmitter, frequency converter, electrical converter, flow meter, solenoid valve and other field instruments and control systems such as PLC, DCS's AI, AO, DI, Surge protection for I/O interfaces such as DO. Widely used in petroleum, chemical industry, natural gas, environmental protection, new energy and other industries.

Features

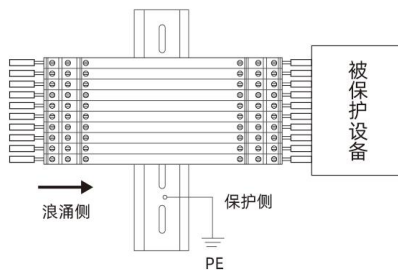
- Suitable for 12/24V signal circuit requirements in intrinsically safe circuit systems and meets SIL certification product requirements
- 7/12.5mm ultra-thin design and compact appearance are particularly suitable for protecting signal lines of many automation systems in limited spaces, saving control cabinet space.
- Comes with built-in guide rail grounding. When the SPD is snapped into the guide rail, a reliable connection with surge voltage resistance is automatically generated between the protection circuit and the installation guide rail. If a whole row of SPDs is provided with a ground connection, you only need to ground the installation rail, which is simple and convenient.
- With multi-level surge protection function, it has strong current capacity, excellent transmission performance, convenient wiring and simple maintenance.
- The card slot is designed to prevent misplugging and unplugging, and the 4-wire protection plug supports hot swapping.
- The core components adopt internationally renowned brands, with excellent performance, small insertion loss, fast response time, and accurate limiting voltage.

Specification



| Model | AI: Analog signal | D12Y2-A | D12Y3-A | D12Y4-A | D24Y2-A | D24Y3-A | D24Y4-A | D48Y2-A | D48Y3-A | D48Y4-A |
|---|--------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|
| | DI: Digital signal | D12Y2-DI | D12Y3-DI | D12Y4-DI | D24Y2-DI | D24Y3-DI | D24Y4-DI | D48Y2-DI | D48Y3-DI | D48Y4-DI |
| Lightning projection zone(LPZ) | | 0-2 | | | | | | | | |
| Standards Compliance | | IEC61643-21 | | | | | | | | |
| SPD category | | D, C1/ C2/C3 | | | | | | | | |
| Norminal working voltage Un | | 12V | | | 24V | | | 48V | | |
| Max continuous operating voltage Uc | | 15V | | | 33V | | | 58V | | |
| Nominal discharge current (8/20μs) In | | 10KA | | | | | | | | |
| Max discharge current Imax (8/20μs) Imax | | 20KA | | | | | | | | |
| Lightning impulse current (10/350μs) Iimp | | 2.5KA | | | | | | | | |
| Total lightning impulse current (10/350μs) Iimp | | 5KA | 7.5KA | 10KA | 5KA | 7.5KA | 10KA | 5KA | 7.5KA | 10KA |
| Voltage proection level (8/20μs) Up | | ≤40V | | | ≤60V | | | ≤120V | | |
| Rated load current IL | | 500mA | | | | | | | | |
| Frequency | | 20MHz | | | | | | | | |
| Response time tA | | ≤1ns | | | | | | | | |
| Lines protected | | 2 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 4 |
| Mounting | | Be Installed between protected equipment and signal line, 35mm DIN-rail mounting | | | | | | | | |
| Cross-section of connection wire | | ≤6mm² | | | | | | | | |
| Dimension | | 2 wires/3 wires : 91*7*64mm; 4 wirles: 90*12.5*75mm | | | | | | | | |
| Joint form | | Crimp type terminals | | | | | | | | |
| IP code(IEC EN 60529) | | IP20 | | | | | | | | |
| Largest terminal installation torque | | 0.6-0.8 N.m | | | | | | | | |
| Material/color | | UL94V-0 PG66/ White | | | | | | | | |
| Insertion loss | | ≤0.5dB | | | | | | | | |
| Working conditions | | Temperature: -40 to 85℃ , Relative humidity: ≤95％ | | | | | | | | |

Installation And Wiring Diagram



Dimension (7mm)

