
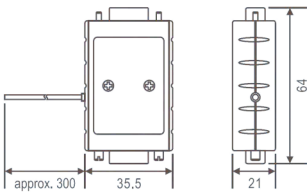
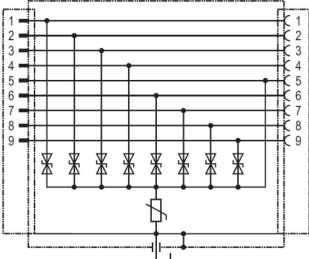

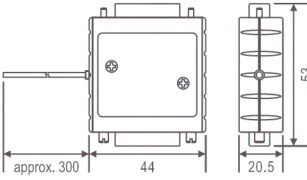
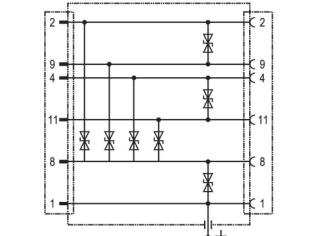
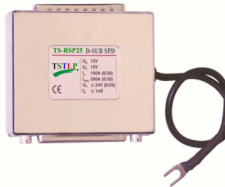
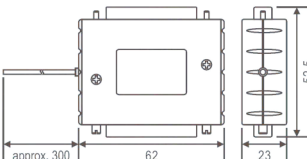
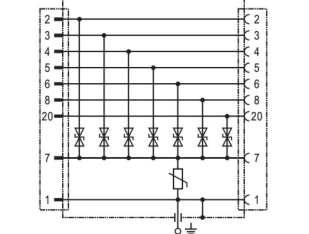

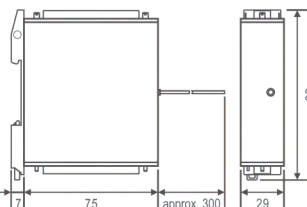
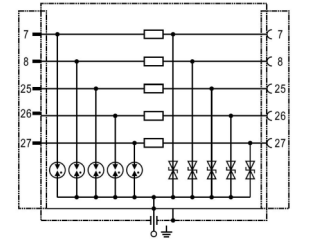




■ **TSTLP®/TS-RSP series Surge Arrester for D-SUB Information Technology System Protection**

❖ **INTRODUCTION:** TS-RSP series surge arrester is used at LPZ 2-3 boundary, provide surge protection for RS485, RS422 or RS232 signal devices from damages, such as surge voltages, operating over voltages, electrostatic discharging and so on. Designed according to IEC 61643-21; GB 18802.21; YD/T 1542.

|  |   |  |
|--|---|--|
|    |    |    |
| TS-RSP9 Product Photo  | TS-RSP9 Dimension(mm)   | TS-RSP9 BCD  |
|    |    |    |
| TS-RSP15 Product Photo   | TS-RSP15 Dimension(mm)  | TS-RSP15 BCD   |
|   |   |   |
| TS-RSP25 Product Photo   | TS-RSP25 Dimension(mm)  | TS-RSP25 BCD   |
|  |  |  |
| TS-RSP37 Product Photo   | TS-RSP37 Dimension(mm)  | TS-RSP37 BCD   |

❖ **TECHNICAL DATA**

| Model                                      |                  | TS-RSP9   | TS-RSP15   | TS-RSP25   | TS-RSP37  |
|--|------------------|---|--|--|---|
| Nominal voltage                            | U <sub>n</sub>   | 12V-  | 5V-  | 12V-   | 48V-  |
| Rated voltage (max. continuous voltage)    | U <sub>c</sub>   | 15V-  | 8V-  | 15V-   | 55V-  |
| Lightning impulse current (10/350)         | I <sub>n</sub>   | /   | /  | /  | 2.5kA (line-SG)                                 |
| Nominal discharge current (8/20)           | I <sub>n</sub>   | 100A (line-SG)  | 200A (line-SG)   | 100A (line-SG)   | 3kA (line-SG)                                   |
| Nominal discharge current (8/20)           | I <sub>n</sub>   | 100A (SG-PG)  | 800A (SG-PG)   | 100A (SG-PG)   |   |
| Max. discharge current (8/20)              | I <sub>max</sub> | 200A (line-SG)  | 400A (line-SG)   | 200A (line-SG)   | 5kA (line-SG)                                   |
| Max. discharge current (8/20)              | I <sub>max</sub> | 200A (SG-PG)  | 1.3kA (SG-PG)  | 200A (SG-PG)   |   |
| Voltage protection level at I <sub>n</sub> | U <sub>p</sub>   | ≤24V (line-SG)<br>≤200V (SG-PG)                           | ≤16V (line-line)<br>≤16V (line-SG)<br>≤16V (SG-PG)   | ≤24V(line-SG)<br>≤200V(SG-PG)                            | ≤120V (line-PG)                                 |
| Voltage protection level at 1kV/ms         | U <sub>p</sub>   | ≤21V (line-SG)<br>≤90V (SG-PG)                            | ≤11V (line-line)<br>≤11V (line-SG)<br>≤11V (SG-PG)   | ≤21V(line-SG)<br>≤90V (SG-PG)                            | ≤100V (line-PG)                                 |
| Bandwidth                                  |                  | 10 MHz  | 4 MHz  | 10 MHz   | 22 MHz (Series impedance per line (R))          |
| Response time                              | t <sub>A</sub>   | ≤1ns (line-SG)<br>≤1ns (SG-PG)                            | ≤1ns (line-SG)<br>≤1ns (SG-PG)   | ≤1ns (line-SG)<br>≤1ns (SG-PG)                           | ≤1ns(line-SG)<br>≤25ns (SG-PG)                  |
| Max. data transmission rates               | V <sub>s</sub>   | 1Mbits/s  |  |  |   |
| Operating temperature range                |                  | -40°C...+80°C   |  |  |   |
| Relative humidity                          |                  | ≤ 95% (25°C)  |  |  |   |
| Protective lines                           |                  | Line: 8/ SG/PG  | 2 two-core lines   | 7/SG/PG  | Line:7/8/25/26/27, PG:12/20/30                  |
| Pinning                                    |                  | Line: 1/2/3/4/6/7/8/9, SG: 5 (standby lines disconnected) | 2/9 1 <sup>st</sup> pair; 4/11 2 <sup>nd</sup> pair; 8:SG: 1:PG (standby lines disconnected) | Line: 2/3/4/6/7/8/20, SG: 7 (standby lines disconnected) | Line: 7/8/25/26/27 (standby lines disconnected) |
| Mounting in                                |                  | D-Sub, 2 threaded screws                                  |  |  | D-Sub, 2 threaded screws/35mm Din Rail          |
| Connection (input / output)                |                  | D-sub 9 socket/plug                                       | D-sub 15 socket/plug   | D-sub 25 socket/plug                                     | D-sub 37 socket/plug                            |
| Shield earthing                            |                  | Outgoing cable 1.5mm <sup>2</sup> x 300mm                 |  |  |   |
| Enclosure material                         |                  | Plastic, metallised                                       |  |  |   |
| Dimension                                  |                  | 64mm x 35.5mm x 21mm                                      |  |  |   |
| Standards                                  |                  | IEC 61643-21; GB 18802.21; YD/T 1542                      |  |  |   |
| Certification                              |                  | CE(EMC, LVD)  |  |  |   |



### ❖ MAIN CHARACTER

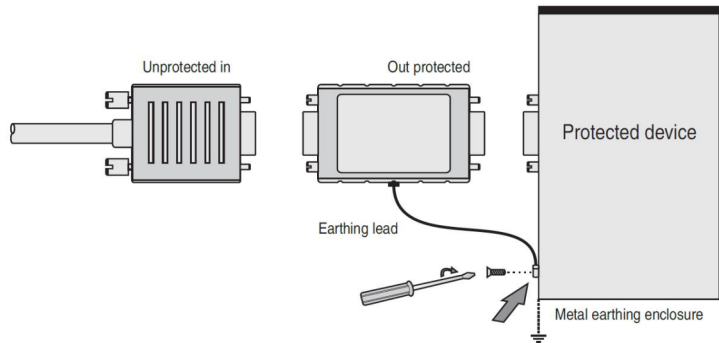
- ✓ High discharge capacity, low voltage protection level, quick response
- ✓ Do not impact the normal work of data management devices and system
- ✓ Apply for high speed transmission devices

### INSTALLATION INSTRUCTION

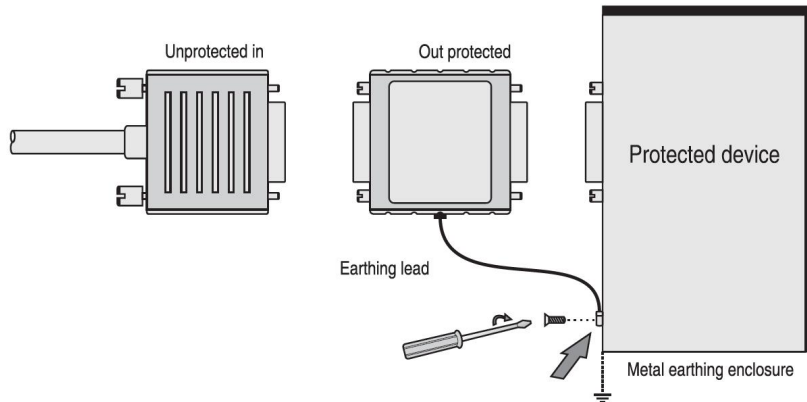
1. This product is connected in series to the protected device, installation in the partition of LPZ 2-3 interface;  
In order to prevent lightning induction, LPZ 0A -1 and LPZ 1-2 interface must install additional surge protection products.
2. The out terminal should be connected to the protected devices.
3. SPD's earthing lead must be connected to nearby earthing BusBar or the metal earthing enclosure of protected device.
4. After above, you should ensure the circuit is functioning.

**Regularly inspect the operating status, especially after lightning. Once the communication is off, electrician should check/replace the SPD.**

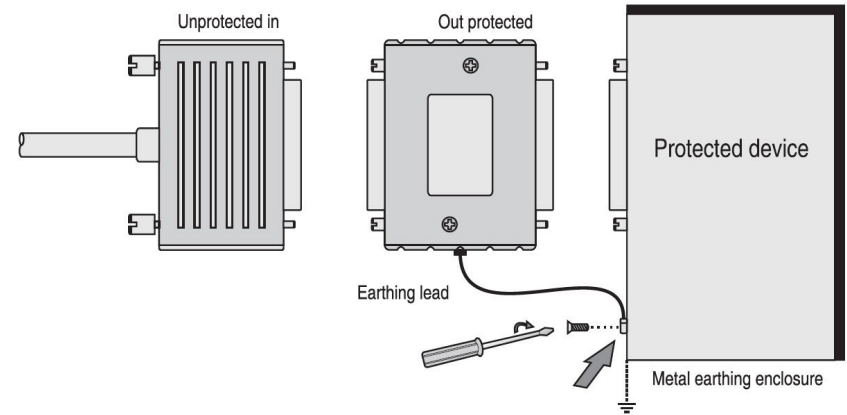
### TS-RSP9 INSTALLATION DIAGRAM



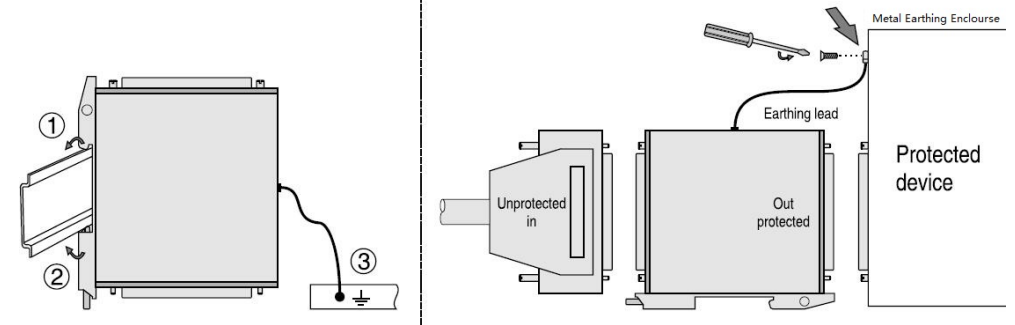
### TS-RSP15 INSTALLATION DIAGRAM



### TS-RSP25 INSTALLATION DIAGRAM



### TS-RSP37 INSTALLATION DIAGRAM



### WARNING:

1. The device must be installed by electrically skilled person, conforming to national standards and safety regulations.
2. It is recommended that installation should be done under power off condition.