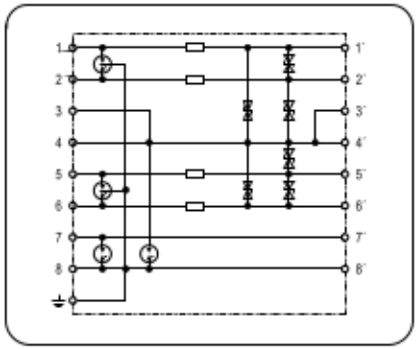
BlitzShield DIREKTRONIK SPD

Basic circuit diagram:



• Technical data

Type		BS RS485 5
Art.-No.		20113640
Nominal voltage	U_N	5V-
Rated voltage (max. continuous voltage)	U_C	6V- / 4.2V~
Nominal current	I_L	0.5A
Nominal discharge current (8/20)	I_n	10kA
Voltage protection level at I_n	U_p	≤ 20V (line-line) ≤ 700V (line-PG)
Voltage protection level at 1kV/μs	U_p	≤ 8.5V (line-line) ≤ 600V (line-PG)
Response time	t_A	≤ 1ns (line-line) ≤ 100ns (line-PG)
Bandwidth	f_G	1.7MHz (line-line)
Series impedance per line	R	1.8Ω
Capacitance	C	≤ 5nF (line-line)
Operating temperature range		-40°C...+80°C
Cross-sectional area		Max. 2.5mm² flexible
Mounting on		35mm DIN rail
Enclosure material		Orange thermoplastic, UL94-V0
Test standards		IEC 61643-21; GB 18802.21; YD/T 1542
Certification		CE (LVD, EMC)

• Product introduction

1. Summary

BS RS485 5 is installation at LPZ 0_B-2 or higher. Provide surge current protection for RS 485/RS 422 industrial bus control, other field bus and temperature measurement. Designed according to IEC 61643-21; GB 18802.21; YD/T 1542.

2. Main character

- Quick response
- Low voltage protection level
- Direct or indirect shield earthing

3. Application

BS RS485 5 is applied for RS 485 / RS 422 industrial bus control, other field bus and temperature measurement.

4. Application environment

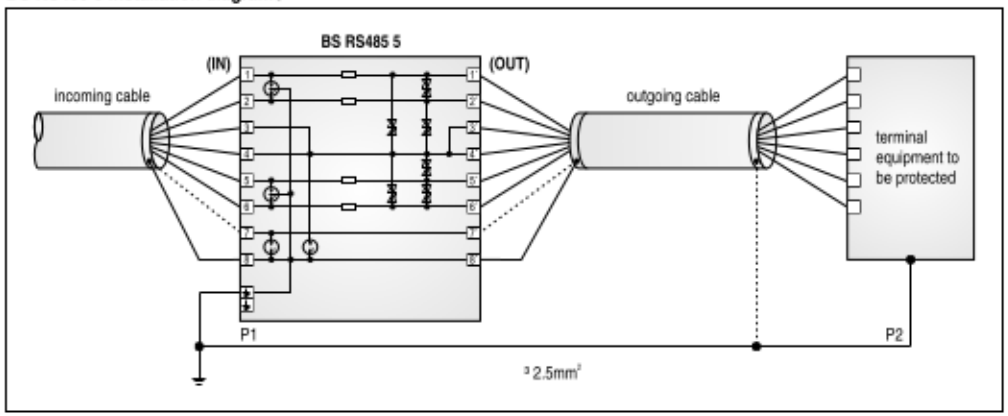
- Temperature: -40°C ~ +80°C
- Relative humidity: ≤ 95% (25°C)

• Installation instruction

1. This product is connected in series to the protected device.
2. Mount the SPD on 35 mm DIN rail.
3. The output terminals should be connected to the protected devices.
4. There is a earthing terminal at input side. Earth lead must be connected to the lightning earthing system, ideally using 2.5mm² cable. The cable should be as short as possible.
5. Shields on the BS RS485 5 can be grounded directly or indirectly. If grounded directly, the shield of the incoming cable is connected to terminal 8 (IN) and the outgoing cable is connected to terminal 8´(OUT). If grounded indirectly, the shield of the incoming cable is connected to terminal 7(IN) and the outgoing cable is connected to terminal 7´(OUT).
6. 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.

BS RS485 5 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.**