

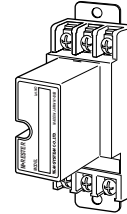
Lightning Surge Protectors for Electronics Equipment *M-RESTER*

LIGHTNING SURGE PROTECTOR FOR RS-485 / RS-422

MODEL **MDP-4R**

MODEL & SUFFIX CODE SELECTION

MODEL _____ **MDP-4R**



Functions & Features

- Designed specifically for RS-485 or RS-422 transmission line
- No interruption of transmission signal by unplugging the head element module

ORDERING INFORMATION

Specify code number. (e.g. MDP-4R)

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M4 screw terminals (nickel-plated steel; torque ≤ 0.8 N·m)

Housing material: Flame-resistant resin (black)

INSTALLATION

Operating temperature: -5 to +55°C (23 to 131°F)

Operating humidity: 30 to 90% RH (non-condensing)

Mounting: Surface; DIN Rail Mounting Adaptor (model: A-33) separately available for DIN rail mounting.

Dimensions: W31.5×H100×D80 mm (1.24"×3.94"×3.15")

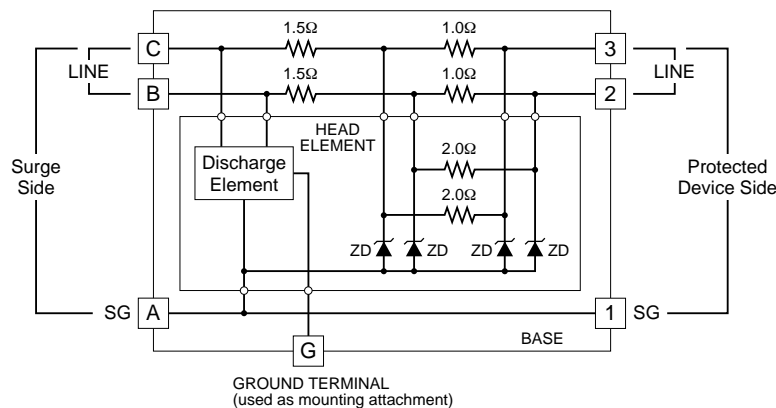
Weight: 100 g (0.22 lbs)

PERFORMANCE

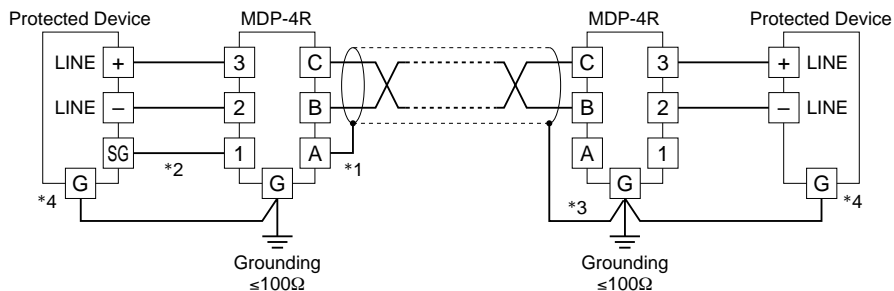
	BETWEEN LINES	LINE TO SG	TO GROUND
Discharge voltage	$\pm 5V$ min. B to C	5V min. B / C to A	$\pm 140V$ min. A / B / C to G
Max. surge voltage*	$\pm 20V$ max. 2 to 3	20V max. 2 / 3 to 1	$\pm 500V$ max. 1 / 2 / 3 to G
Leakage current	$\leq 0.2mA$ @ $\pm 5V$ B to C	$\leq 0.2mA$ @5V B / C to A	$\leq 10\mu A$ @ $\pm 140V$ (A / B / C to G)
Response time	≤ 4 nsec.	≤ 4 nsec.	≤ 20 nsec.
Capacitance (approx.)	500 pF @100 kHz	500 pF @100 kHz	100 pF @100 kHz
Discharge current	5000A (8 / 20 μ sec.)		
Max. load current	100mA		
Internal series resist.	approx. 4 Ω including return		
Max. line voltage	$\pm 5V$		
Input attenuation	-0.5 dB max. @DC...2.0 MHz, $Z_0 = 110\Omega$		

*The maximum voltage that could pass through M-RESTER. Protected equipment must be able to withstand this voltage for a very short time period.

SCHEMATIC CIRCUITRY

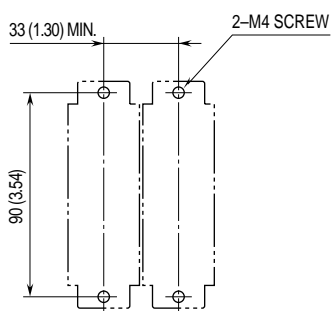


CONNECTION DIAGRAM

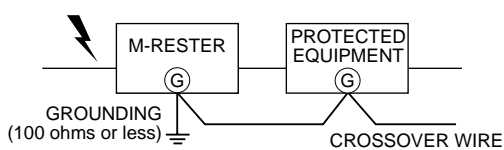


- *1. Leave Terminal [A] when the shielded twisted-pair cable is not provided.
- *2. Leave Terminal [1] when the protected device has no [SG] (Signal Ground) terminal.
- *3. Cross wire to the surge protector's [G] terminal when grounding the shield wire.
- *4. Cross-over wire between [G] terminals of the surge protector and the protected device is required. Ground only the surge protector if the protected device has no [G] terminal.

MOUNTING REQUIREMENTS (unit: mm)



GROUNDING



A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection. If the protected equipment has no ground terminal, ground the M-RESTER only.

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENT (unit: mm)

