M·SYSTEM CO.,LTD.

Lightning Surge Protectors for Electronics Equipment *M-RESTER*

LIGHTNING SURGE PROTECTOR FOR AC/DC POWER LINE USE (1A)

MODEL **MDP-100 MDP-200**

MODEL & SUFFIX CODE SELECTION

MDP-100
MDP-200

MODEL

ORDERING INFORMATION

Specify code number. (e.g. MDP-100)

GENERAL SPECIFICATIONS

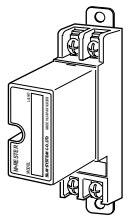
Construction: plug-in
Connection: M4 screw terminals (nickel-plated steel; torque ≤0.8 N·m)
Housing material: flame-resistant resin (black)

INSTALLATION

Operating temperature: -5 to +60°C (23 to 140°F)
Operating humidity: 30 to 90% RH (non-condensing)
Mounting: surface or DIN rail (DIN rail adaptor model A-33 is required.)
Dimensions: W23.5×H100×D80 mm (0.93"×3.94"×3.15")
Weight: 90 g (0.20 lbs)

PERFORMANCE

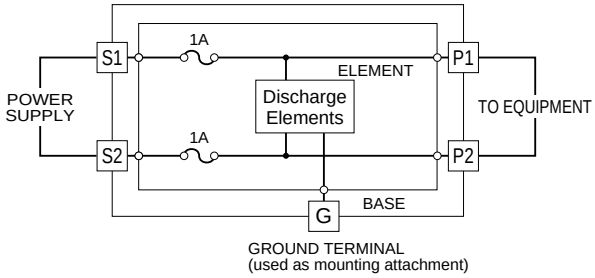
Discharge voltage (peak-to-peak)
Between lines: 190V min. (MDP-100)
410V min. (MDP-200)
Line to ground: 410V min.
Maximum surge voltage*:
Between lines: 400V max. (MDP-100)
800V max. (MDP-200)
Line to ground: 800V max.
*The maximum voltage that could pass through M-RESTER. Protected equipment must be able to withstand this voltage for very short time period.
Response time: ≤0.1 microseconds
Discharge current capacity: 1000A (8 / 20 μsec.)
Leakage current
Between lines: ≤0.1mA at 150V DC (MDP-100)
≤0.1mA at 300V DC (MDP-200)
Line to ground: ≤0.1mA at 300V DC
Maximum line voltage:
120V AC, 170V DC (MDP-100)
250V AC, 350V DC (MDP-200)
Maximum load current: 1.0A
Internal series resistance: ≤0.4Ω including return
Dielectric strength of the base module: 1500V AC @1 minute (terminal to G terminal)



Functions & Features

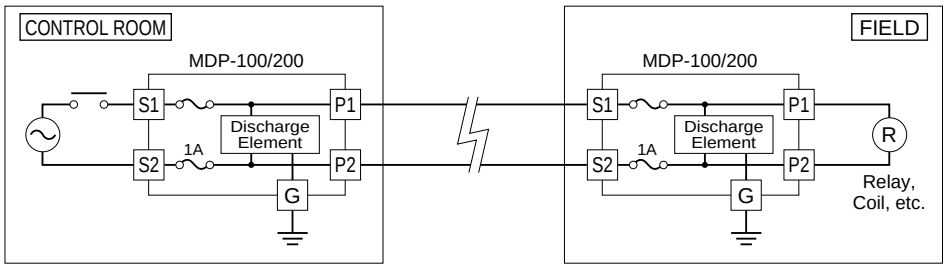
• Designed for AC and specifically for DC power supplies up to 1 amp • Beneficial for protecting instruments from counter electromotive force by inductors and of course normal lightning surges entering from power supply lines • 1A fuse incorporated in element circuit

SCHEMATIC CIRCUITRY



Note: When element is removed, signal will be open.

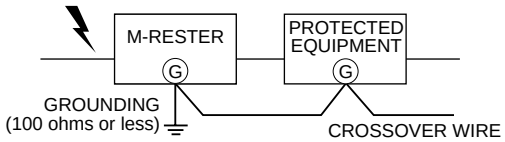
CONNECTION DIAGRAM



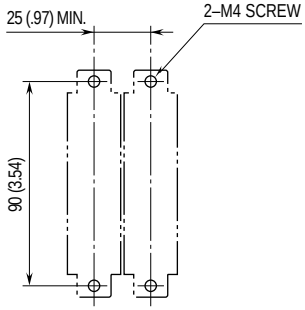
The MDP-100/MDP-200 must be connected with its terminals S1 and S2 faced on power source side in order that the fuses would be blown in case of shortcircuit of the discharge element.

GROUNDING

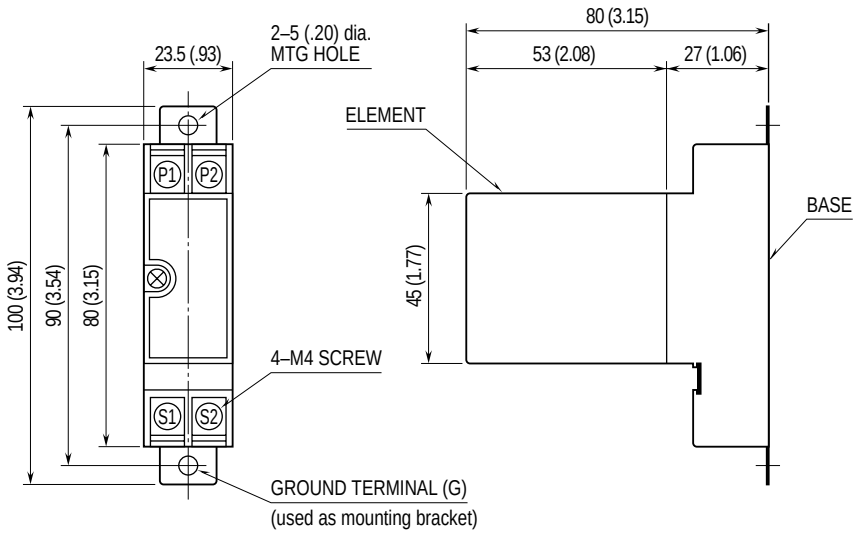
A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection.



MOUNTING REQUIREMENTS mm (inch)



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENT mm (inch)



Specifications subject to change without notice.