Lightning Surge Protectors for Electronics Equipment M-RESTER

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

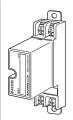
Functions & Features

 $\bullet$  Designed for AC and specifically for DC power supplies up to 1 A

• Beneficial for protecting instruments from counter electromotive force by inductors and of course normal lightning surges entering from power supply lines

1 A fuse incorporated in element circuit





# MODEL: MDP-100[1]

• Code number: MDP-100[1]

Specify a code from below for [1]. (e.g. MDP-100/A33)

## [1] OPTIONS

DIN rail mounting adapter blank: Without /A33: With adapter (model A-33)

### **GENERAL SPECIFICATIONS**

Construction: Plug-in Surge protection type: Voltage limiting type one-port SPD Connection: M4 screw terminals (torque 0.8 N·m) Screw terminal: Nickel-plated steel 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 Weight: 90 g (0.20 lbs), standard 115 g (0.25 lbs), with DIN rail mounting adapter

#### PERFORMANCE

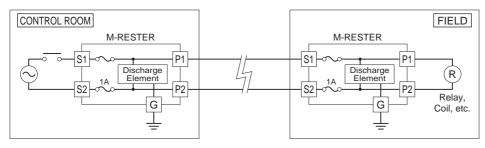
Max. line voltage (Uc): 120 V AC, 170 V DC Discharge voltage: Line to line:  $\geq$  190 V Line to earth:  $\geq$  410 V Voltage protection level (Up): Line to line: 400 V max. Line to earth: 800 V max. **Response time**:  $\leq 0.1 \, \mu \text{sec.}$ Leakage current: Line to line:  $\leq$  0.1 mA @ 150 V DC Line to earth:  $\leq 0.1 \text{ mA} @ 300 \text{ V DC}$ Max. discharge current (Imax): 1000 A (8/ 20 µsec.) Nominal current (I<sub>N</sub>): 1.0 A Dielectric strength of the base module: 1500 V AC @ 1 minute (G terminal to other terminals) **Internal series resistance**:  $\leq 0.4 \Omega$  (including return)

## **STANDARDS & APPROVALS**

Surge protection: IEC 61643-1 Class III

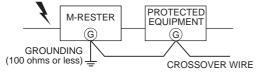


## **CONNECTION EXAMPLES**



The M-RESTER 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



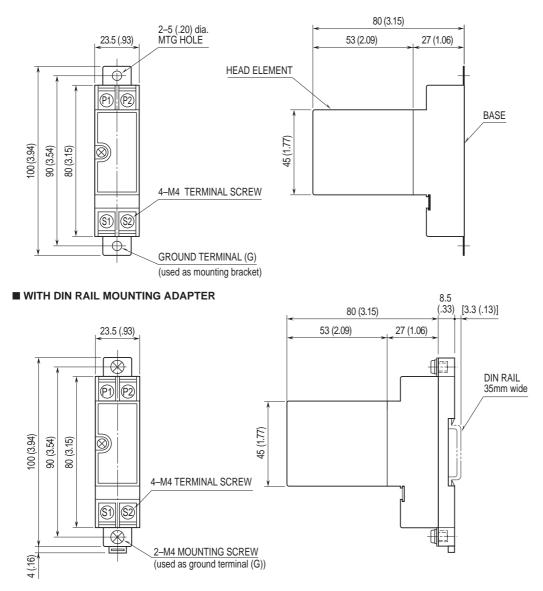
A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection. If the protected equipment has no ground terminal, ground the M-RESTER only.

When the M-RESTER is mounted with DIN Rail Mounting Adapter, connect the grounding wire to the mounting screw of the M-RESTER.

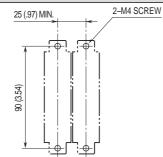


### **EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)**

#### STANDARD



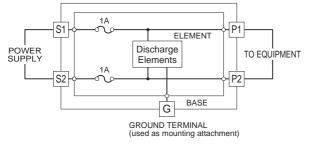
#### **MOUNTING REQUIREMENTS unit: mm (inch)**



M·SYSTEM CO.,LTD, http://www.m-system.co.jp/

**MDP-100 SPECIFICATIONS** 

# **SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Note: When the head element is removed, the line will be open.

Specifications are subject to change without notice.

