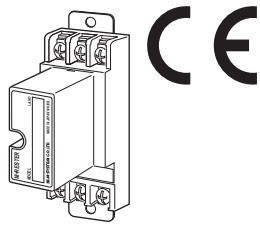


Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR RTD USE

Functions & Features

- Designed specifically for resistance temperature detector (RTD) circuits
- Protecting RTD and RTD transmitters from damage caused by surges on the RTD wiring
- Absorbs surges only without affecting instrumentation signal
- No interruption of signal by unplugging the protector element



MODEL: MDP-RB[1]

ORDERING INFORMATION

- Code number: MDP-RB[1]
Specify a code from below for [1].
(e.g. MDP-RB/A33)

[1] OPTIONS

DIN Rail Mounting Adapter

blank: Without

/A33: With adapter (model A-33)

GENERAL SPECIFICATIONS

Construction: Plug-in

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 +55°C (23 to 131°F)

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

Mounting: Surface or DIN rail

Weight: 140 g (0.31 lb), standard

165 g (0.36 lb), with DIN rail mounting adapter

PERFORMANCE

Max. continuous operating voltage (Uc):

B to C: ± 6 V min.

B or C to A: ± 3 V min.

Line to earth: ± 140 V min.

Voltage protection level (Up):

• @ 1 kV (100 A)

2 to 3: ± 32 V max.

2 or 3 to 1: ± 16 V max.

Line to earth: ± 650 V max.

• @ 2 kV (1 kA)

2 to 3: ± 40 V max.

2 or 3 to 1: ± 25 V max.

Line to earth: ± 800 V max.

Response time: ≤ 0.1 μ sec.

Leakage current:

B to C: ≤ 2 μ A @ ± 6 V DC

B or C to A: ≤ 2 μ A @ ± 3 V DC

Line to earth: ≤ 2 μ A @ ± 140 V DC

Max. discharge current (Imax): 5000 A (8 / 20 μ s)

Nominal current (In): 100 mA

Internal series resistance: 10 Ω ± 0.1 %, 30 ppm/°C (17 ppm/°F)

Capacitance @ 1 MHz:

Line to line: ≤ 1000 pF

Line to earth: ≤ 100 pF

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

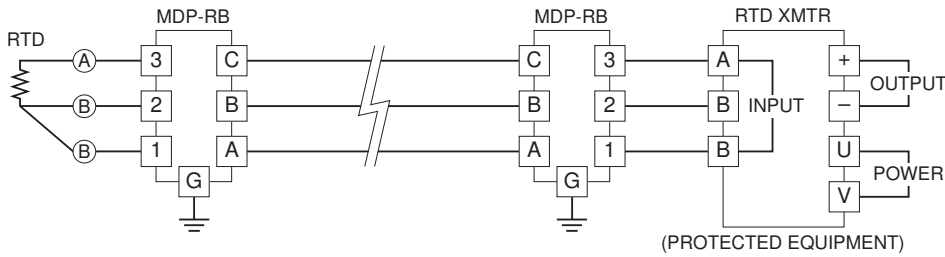
EMS EN 61000-6-2: 2005

Surge protection: IEC 61643-21: 2000

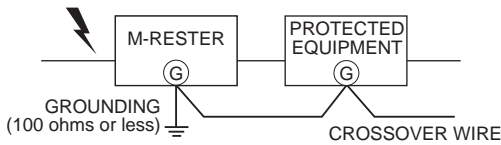
(Categories C1, C2)



CONNECTION EXAMPLES



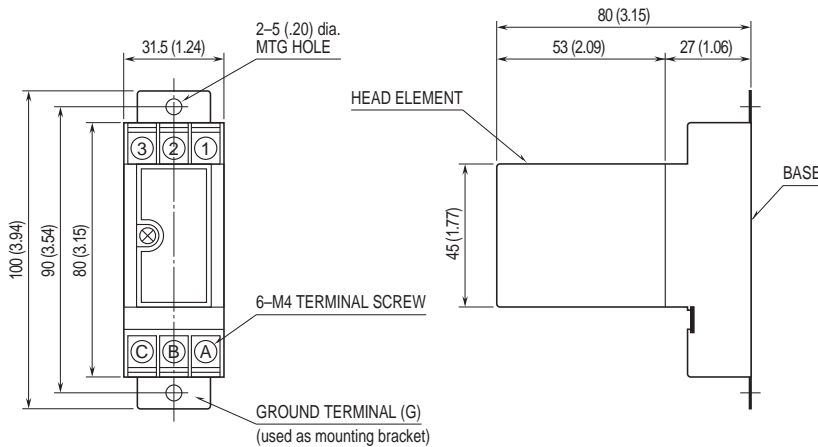
GROUNDING



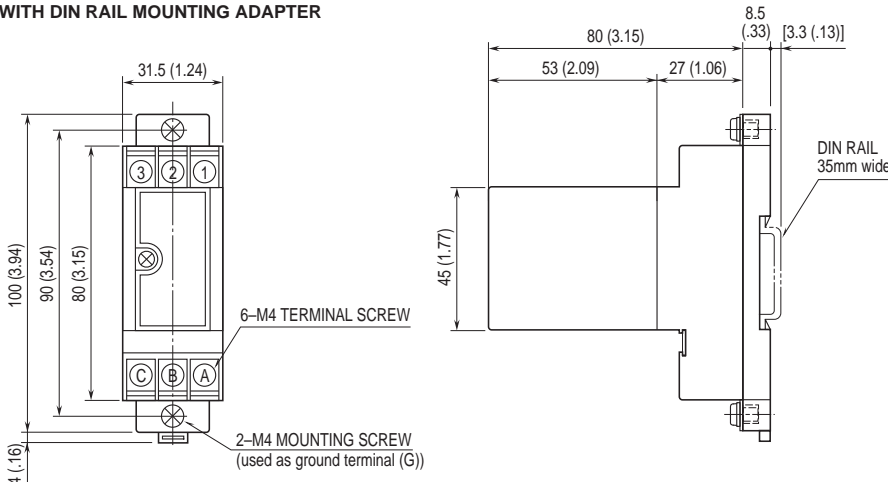
A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection. If the protected equipment has no ground terminal, ground the M-RESTER only. When the M-RESTER is mounted with DIN Rail Mounting Adapter, connect the grounding wire to the mounting screw of the M-RESTER.

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

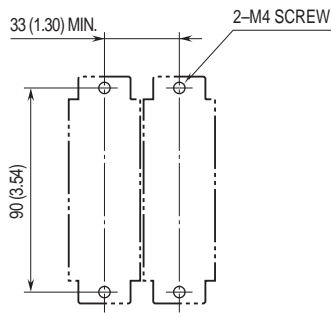
■ STANDARD



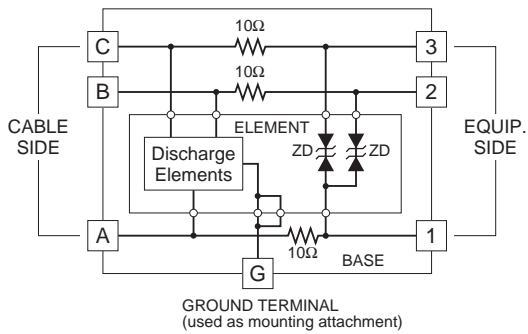
■ WITH DIN RAIL MOUNTING ADAPTER



MOUNTING REQUIREMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.