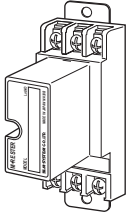


Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR MsysNet USE

Functions & Features

- Designed specifically for the network
- No interruption of transmission signal by unplugging the head element module



MODEL: MDP-DM3[1]

ORDERING INFORMATION

- Code number: MDP-DM3[1]
Specify a code from below for [1].
(e.g. MDP-DM3/A33)

[1] OPTIONS

DIN rail mounting adapter

blank: Without

/A33: With adapter (model A-33)

RELATED PRODUCTS

- Repeater (model: DALx)
- Multi-transmission module (model: 22LAX)
- Multi-transmission unit (model: DLAX)

APPLICABLE NETWORK

SIN-NET (conform to RS-422), MsysNet, MsysNet-mini, MuNet (RS-485), EC Cable (model ECx-5P)

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: 100 g (0.22 lbs), standard; 125 g (0.28 lbs), with DIN rail mounting adapter

PERFORMANCE

Max. continuous operating voltage (Uc):

B to C: ± 5 V min

B or C to A: 5 V min

Line to earth: ± 140 V min

Voltage protection level (Up):

- @ 1 kV (100 A)

2 to 3: ± 10 V max.

2 or 3 to 1: 10 V max.

Line to earth: ± 650 V max.

- @ 2 kV (1 kA)

2 to 3: ± 20 V max.

2 or 3 to 1: 20 V max.

Line to earth: ± 800 V max.

Response time: ≤ 0.1 μ sec.

Leakage current:

B to C: ≤ 0.2 mA @ ± 5 V DC

B or C to A: ≤ 0.2 mA @ 5 V DC

Line to earth: ≤ 10 μ A @ ± 140 V DC

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

Nominal current (In): 100 mA

Internal series resistance: 4 Ω ± 10 % (including return)

Capacitance @ 1 MHz:

Line to line: ≤ 20 nF

Line to earth: ≤ 50 pF

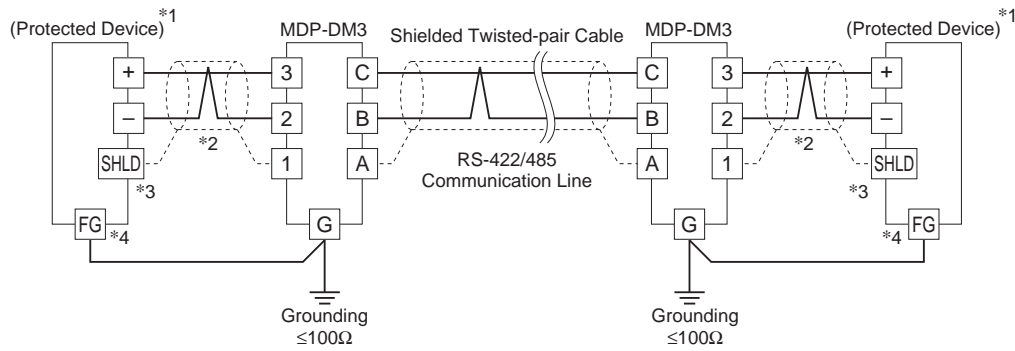
Input attenuation: -0.5 dB or less @ DC to 100 kHz, Zo = 110 Ω

STANDARDS & APPROVALS

Surge protection: IEC 61643-21 (Categories C1, C2)

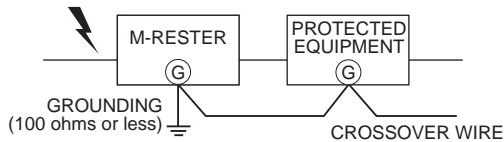


CONNECTION EXAMPLES



- *1. Applicable devices: M-System's MsysNet or SIN-NET devices which employ RS-422/485 communication standards.
- *2. Recommended cable length between the surge protector and the protected device: 1 meter at the maximum
- *3. No connection is required if the protected device has no shield terminal.
- *4. Cross wire between the protected device's FG terminal and the surge protector's G terminal, and ground to the earth at the surge protector side.
Ground only the surge protector if the protected device has no FG terminal.

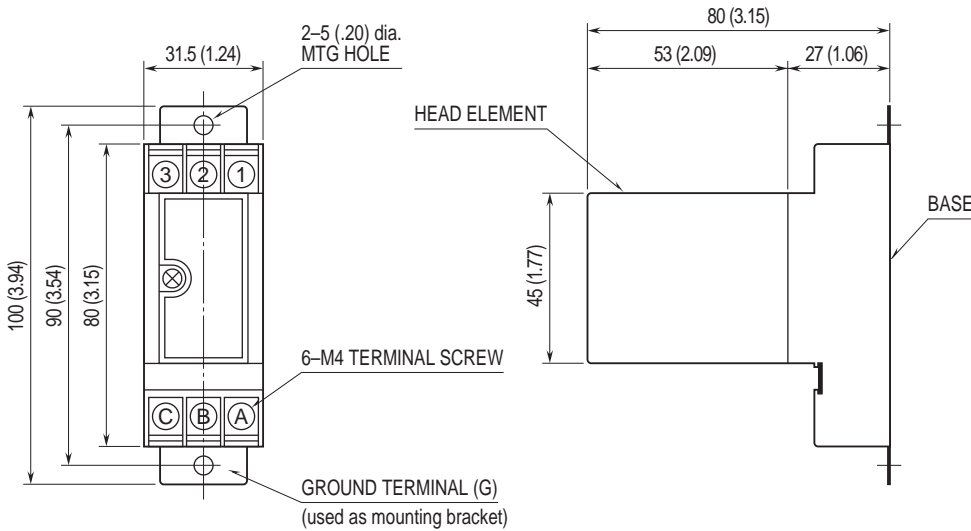
GROUNDING



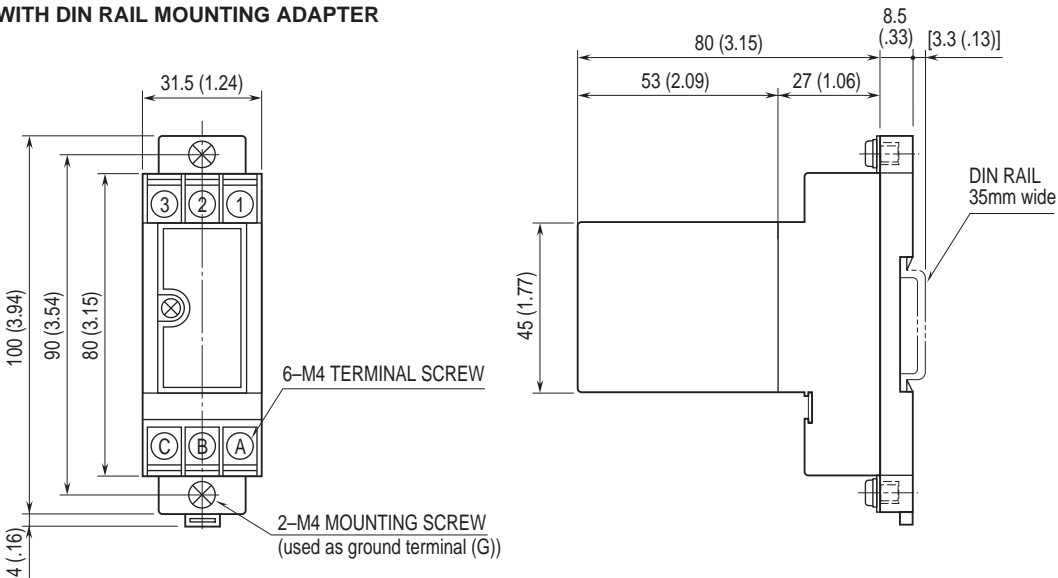
A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection.
If the protected equipment has no ground terminal, ground the M-RESTER only.
When the M-RESTER is mounted with DIN Rail Mounting Adapter, connect the grounding wire to the mounting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

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

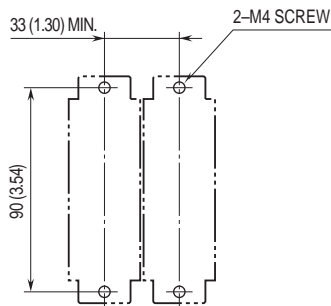
■ STANDARD



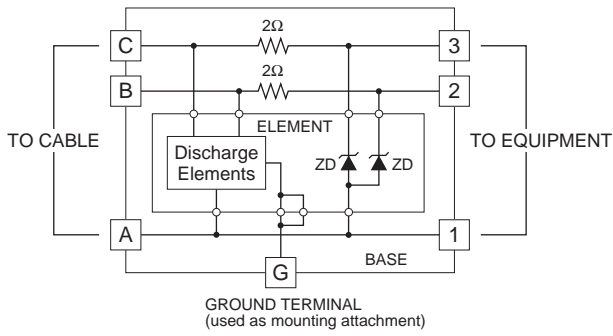
■ WITH DIN RAIL MOUNTING ADAPTER



MOUNTING REQUIREMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.

