

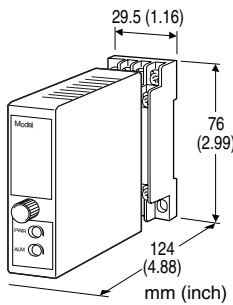
Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR STANDARD SIGNAL LINE & PULSE USE

(life monitor, 24 V, 48 V or 65 V DC line voltage, photovoltaic system, instrument shelter)

Functions & Features

- Designed specifically for 4 - 20 mA DC and pulse signal lines
- Absorbs surges only without affecting instrumentation signal
- Life monitor function helps you to decide when you should replace the surge protector; reduces time and effort for maintenance and prevents downtime
- LED display and alarm output indicate the degradation and life span of the surge protection circuits
- Wide range of operating temperature from -20 to +70°C (-4 to +158°F)



MODEL: MDM2AT-[1]-[2]

ORDERING INFORMATION

- Code number: MDM2AT-[1]-[2]
Specify a code from below for each [1] and [2].
(e.g. MDM2AT-24-M2)

[1] NOMINAL VOLTAGE

24: 24 V DC

65: 48 V or 65 V DC

[2] POWER INPUT

AC Power

M2: 100 - 240 V AC (Operational voltage range 85 - 264 V, 47 - 66 Hz)

DC Power

R: 24 V DC

(Operational voltage range 24 V \pm 10 %, ripple 10 %p-p max.)

P: 110 V DC

(Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

GENERAL SPECIFICATIONS

Construction: Plug-in

Connection: M3 screw terminals (torque 0.8 N·m)

Housing material: Flame-resistant resin (black)

Alarm indicators

PWR: The green LED turns on while the power is supplied.

ALM: Tricolor LED (green/amber/red)

• Remains off when the power supply is first turned on.

• **Green:** The unit has received one or more surges.

• **Amber:** Replacement is recommended.

• **Red:** The life span has ended.

Degradation judged: When the leakage current at the voltage limiter exceed approx. 7.5 μ A.

Life time judged: When the number of discharges of the discharge element reaches the expected life span.

Alarm output: The N.C. contact is on when the life span of the discharge elements has ended, when the voltage limiter has degraded, and/or when the power supply is removed.

Rating: 125 V AC @ 0.5 A ($\cos \phi = 1$)

30 V DC @ 1 A (resistive load)

Maximum switching voltage: 125 V AC or 110 V DC

Maximum switching power: 62.5 VA or 30 W

Minimum load: 5 V DC @ 1 mA

INSTALLATION

Power consumption

• AC: \geq 2.3 VA at 100 V

\geq 3.5 VA at 200 V

\geq 4.6 VA at 240 V

• DC: \geq 1.7 W

Operating temperature: -20 to +70°C (-4 to +158°F)

Storage temperature: -30 to +70°C (-22 to +158°F)

Operating humidity: 10 to 90 %RH (non-condensing)

Mounting: Surface or DIN rail

Weight: 150 g (0.33 lb)

PERFORMANCE

Max. continuous operating voltage (Uc):

Line to line: 30 V (24 V DC use), 70 V (48 V or 65 V DC use)

Line to earth: \pm 140 V

Voltage protection level (Up):

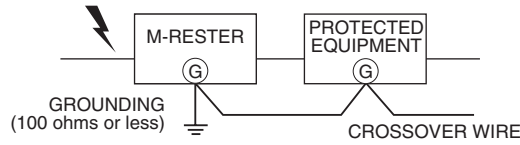
Line to line: 45 V max. (24 V DC use), 100 V max.

(48 V or 65 V DC use)

Line to earth: \pm 650 V max.

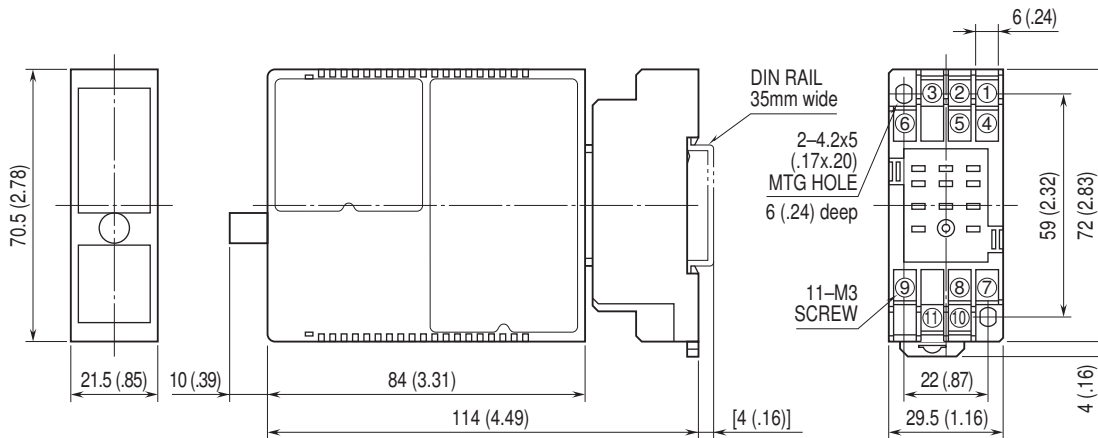
Response time: \leq 0.1 μ sec.

GROUNDING



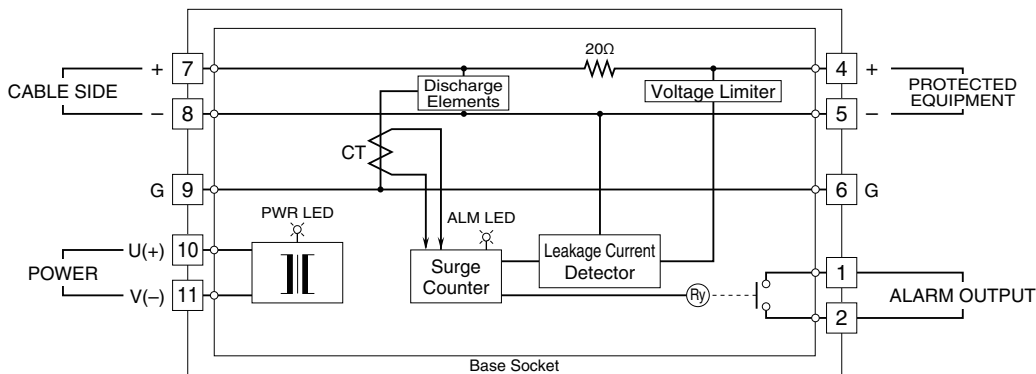
A crossover wire between M-RESTER ground and ground or metallic housing of equipment is required for protection.
If the protected equipment has no ground terminal, ground the M-RESTER only.

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



• When mounting, no extra space is needed between units.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.