Lightning Surge Protectors for Electronics Equipment *M-RESTER*

LIGHTNING SURGE PROTECTOR FOR THERMOCOUPLE USE

MODEL **MDP-TC**

MODEL & SUFFIX CODE SELECTION

MDP-TC

MODEL

ORDERING INFORMATION

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

GENERAL SPECIFICATIONS

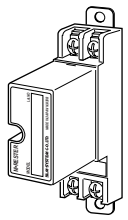
Construction: plug-in
Connection: M4 screw terminals (nickel-plated steel; torque ≤0.8 N·m)
Housing material: flame-resistant resin (black)

INSTALLATION

Operating temperature: -5 to +55°C (23 to 131°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: 120 g (0.26 lbs)

PERFORMANCE

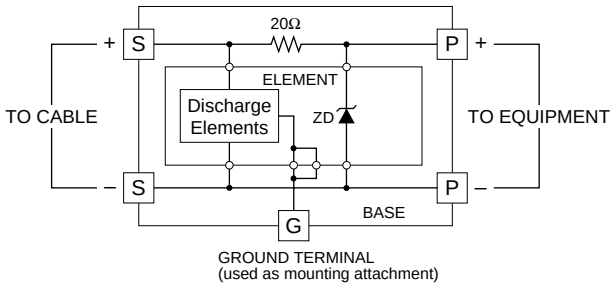
Discharge voltage
Between lines: 7.5V min.
Line to ground: ±500V max.
Maximum surge voltage*
Between lines: 16V max.
Line to ground: ±650V max.
*The maximum voltage that could pass through M-RESTER. Protected equipment must be able to withstand this voltage for very short time period.
Response time: ≤0.1 microseconds
Discharge current capacity: 5000A (8 / 20 μsec.)
Maximum load current: 100mA
Internal series resistance: approx. 20Ω including return
Leakage current
Between lines: ≤10μA at 7.5V DC
Line to ground: ≤5μA at ±140V DC
Maximum line voltage: 7.5V



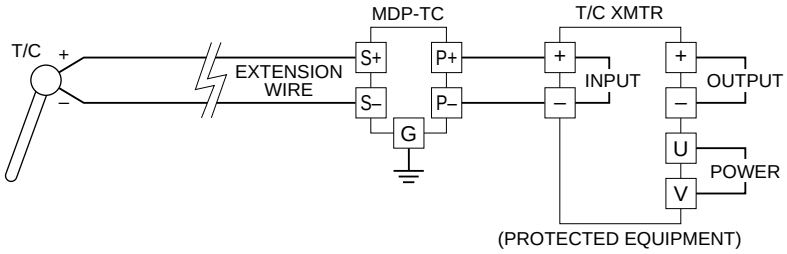
Functions & Features

• Designed specifically for thermocouple circuits • Absorbing the lightning surges entering the temperature transmitter or controller through the thermocouple and/or thermocouple extension wire • Absorbing surges only without affecting instrumentation signal • No interruption of signal by unplugging arrester element

SCHEMATIC CIRCUITRY

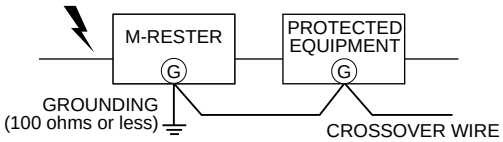


CONNECTION DIAGRAM

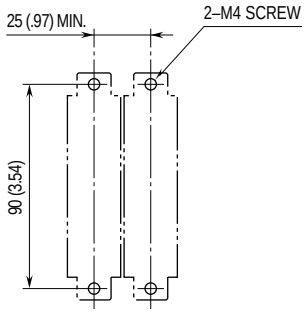


GROUNDING

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)