Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR STANDARD SIGNAL LINE & PULSE USE

Functions & Features

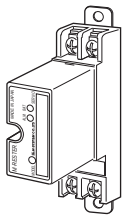
• Designed specifically for 4 – 20mA DC and pulse signal line including both 4-wire and 2- wire transmitters

• Life monitor function helps you to decide when you should replace the surge protector; reduces maintenance and prevents downtime

• Pressing CHK (Check) button confirms the degradation and life span of the surge protection circuits with LEDs

• Absorbs surges only without affecting instrumentation signal

• No interruption of signal by unplugging surge protector element



MODEL: MDPA-65[1]

ORDERING INFORMATION

• Code number: MDPA-65[1]
Specify a code from below for [1].
(e.g. MDPA-65/BN)

[1] OPTIONS

Configuration

blank: With Base (model: SK-2E) included
/BN : Element only for replacement
(Not selectable with DIN rail mounting adapter)

DIN rail mounting adapter

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

RELATED PRODUCTS

• Base (model: SK-2E)

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)
Indicators: Activated by CHK (Check) button, see the status table shown below.
BAT: Green LED
ALM: Red LED
Degradation judged: When the leakage current at the voltage limiter exceed approx. 7.5 μA.
Life time judged: When the number of discharges of the discharge element reaches the expected life span.
CHK button: Push button; momentary
Battery: Lithium; No recharge or replacement available.
Battery life: 10 years (when used ≤ 2 minutes/month)

Discharge element status table

BAT	ALM	Battery	Discharge Element	Voltage Limiter	Replacement
☼	●	Normal			No Need
☼	☼	Normal	Near End	Normal	Near
●	☼	Normal	End of Life	Degraded*1	Immediately Required
●	●	Discharged	Unable to Judge		

☼ : ON ● : OFF

*1. With pulsating line signal or that containing ripples, the LED may flicker or blink when the voltage limiter is degraded.

INSTALLATION

Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 85 %RH (non-condensing)
Mounting: Surface or DIN rail
Weight: 150 g (0.33 lbs), standard
175 g (0.39 lbs), with DIN rail mounting adapter

PERFORMANCE

Max. continuous operating voltage (Uc):
Line to line: 70 V min
Line to earth: ±160 V min
Voltage protection level (Up):
• @ 1 kV (100 A)
Line to line: 85 V max.
Line to earth: ±650 V max.
• @ 2 kV (1 kA)
Line to line: 100 V max.
Line to earth: ±650 V max.
Response time:
Line to line: ≤ 4 nsec.
Line to earth: ≤ 20 nsec.
Leakage current:
Line to line: ≤ 5 μA @ 70 V DC
Line to earth: ≤ 5 μA @ ±140 V DC
Max. discharge current (Imax): 5000 A (8 / 20 μs)
Nominal current (I_N): 100 mA
Internal series resistance: 20 Ω ±10 % (including return)
Capacitance @ 1 MHz:

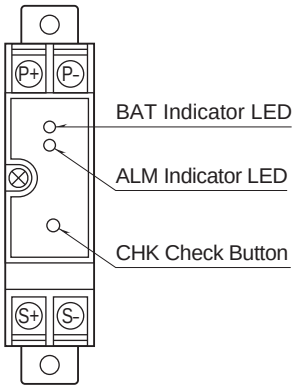
幸託有限公司
XIN TOP CORPORATION
TEL：(02)2598-1199 E-mail：info@xintop.com
FAX：(02)2596-2331 Website：www.xintop.com

Line to line: ≤ 1000 pF
Line to earth: ≤ 100 pF

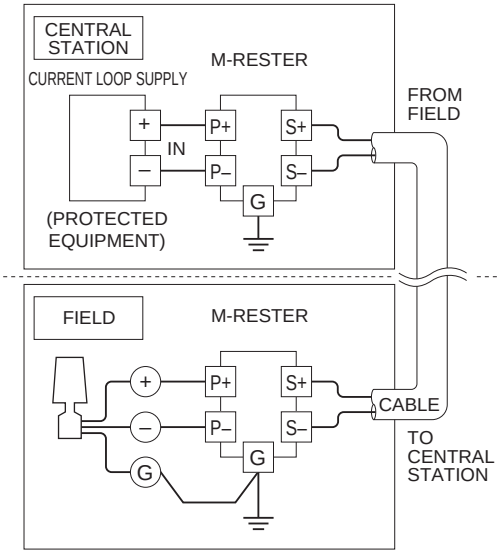
STANDARDS & APPROVALS

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

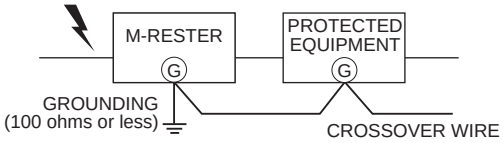
EXTERNAL VIEW



CONNECTION EXAMPLES



GROUNDING

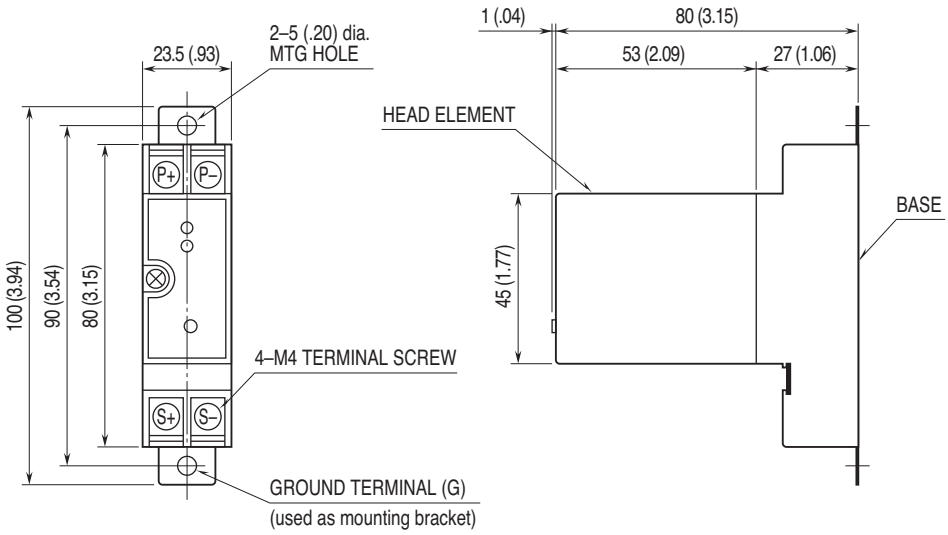


A crossover wire between M-RESTER ground and the ground or metallic housing of the equipment is required for protection.
If the protected equipment has no ground terminal, ground the M-RESTER only.
When the M-RESTER is mounted with DIN Rail Mounting Adapter, connect the grounding wire to the mounting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

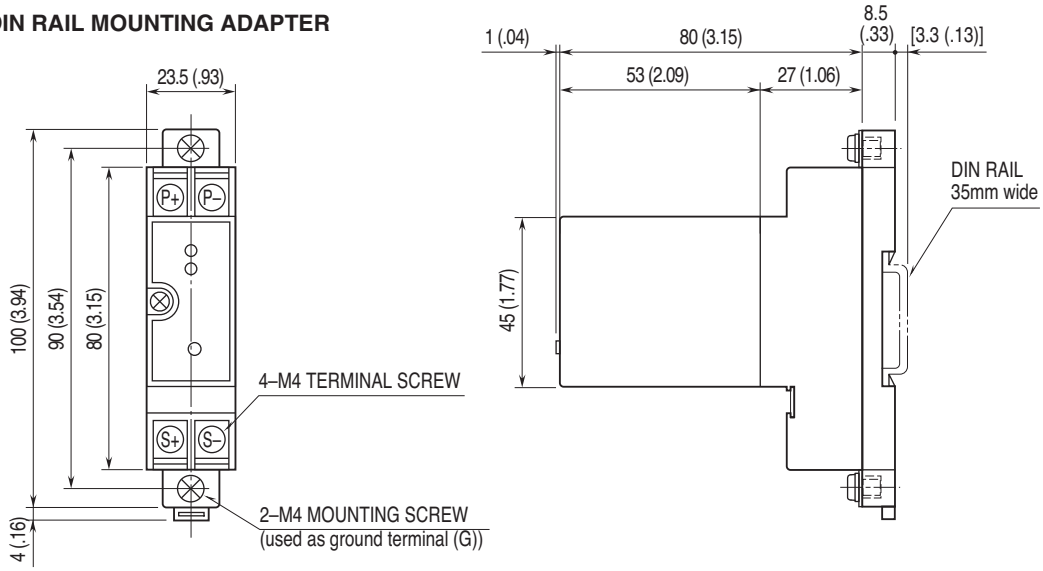
幸託有限公司
XIN TOP CORPORATION
TEL：(02)2598-1199
FAX：(02)2596-2331
E-mail：info@xintop.com
Website：www.xintop.com

EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

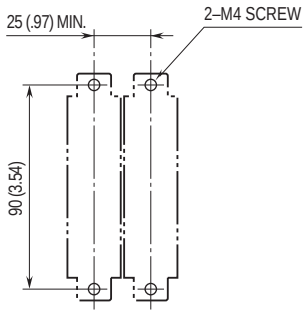
■ STADARD



■ WITH DIN RAIL MOUNTING ADAPTER

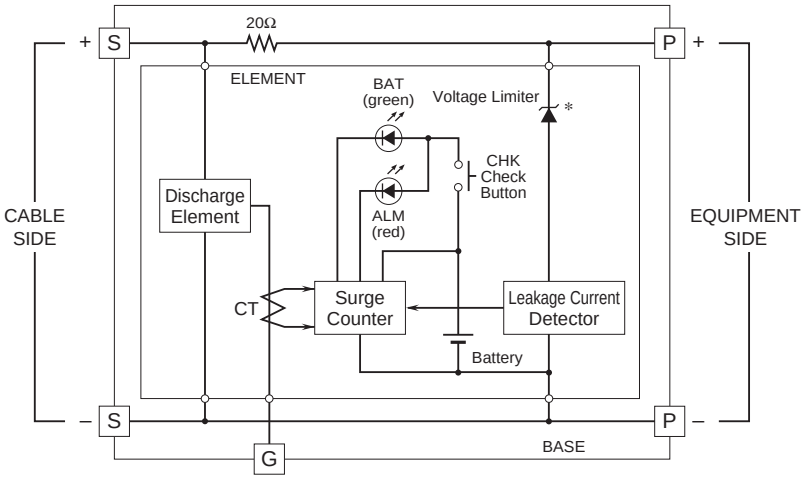


MOUNTING REQUIREMENTS unit: mm (inch)



幸託有限公司
XIN TOP CORPORATION
TEL：(02)2598-1199
FAX：(02)2596-2331
E-mail：info@xintop.com
Website：www.xintop.com

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*The zenor diode has polarity.
Zero-cross signal cannot be connected.

⚠ Specifications are subject to change without notice.

XIN TOP WORLD WIDE SERVICE
幸託有限公司
XIN TOP CORPORATION
TEL：(02)2598-1199
FAX：(02)2596-2331
E-mail：info@xintop.com
Website：www.xintop.com