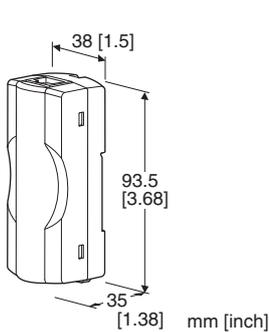


Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR CC-Link IE Field Network

Functions & Features

- Recommended for CC-Link IE Field Network
- LAN cable's shield wire can be floating or grounding by a shortcircuit bar
- DIN rail mounting
- Grounding with M3 screw terminal or via DIN rail



MODEL: MDCAT-NC-5E

ORDERING INFORMATION

- Code number: MDCAT-NC-5E

CABLE CATEGORY

5E: CAT5e

PACKAGE INCLUDES...

LAN cable connected to the protected device
(Compatible cable with CC-Link IE Field Network, 0.5 meters)

APPLICABLE NETWORK

Applicable network: CC-Link IE Field Network
Applicable cable: Compatible cable with CC-Link IE Field Network

GENERAL SPECIFICATIONS

Connection

Network: RJ-45 modular jack
Grounding: M3 screw terminal (torque 0.6 N·m)
or via DIN rail
Screw terminal: Nickel-plated brass
Housing material: Flame-resistant resin (black)

INSTALLATION

Operating temperature: -25 to +85°C (-13 to +185°F)

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

Mounting: DIN Rail (TH35-7.5, 1-mm-thick)

When this unit is earthed via a DIN rail, use a steel or copper rail. Oxide film on the surface of an aluminium rail may lower the electric conductivity between this module and the ground.

Weight: 150 g (0.33 lb)

PERFORMANCE

Max. continuous operating voltage (Uc):

Line to line 1: ±6 V
Line to line 2: ±58 V
Line to earth: ±150 V

Voltage protection level (Up):

Line to line 1: ±15 V (@2 kV, 1.2/50 μsec.)
Line to line 2: ±100 V (@2 kV, 1.2/50 μsec.)
Line to earth: ±600 V (@4 kV, 1.2/50 μsec.)

Response time:

Line to line 1: 4 nsec.
Line to line 2: 4 nsec.
Line to earth: 20 nsec.

Leakage current @Uc:

Line to line 1: 25 μA
Line to line 2: 5 μA
Line to earth: 5 μA

Max. discharge current (Imax)

Line to line 1: 100 A (8/20 μsec.)
Line to line 2: 100 A (8/20 μsec.)
Line to earth: 10 kA (8/20 μsec.)

Nominal current (In): 1 A

Series resistance: approx. 0 Ω

Transmission performance: TIA/EIA-568-B.2 CAT5e

Surge protection: IEC 61643-21 Categories C1, C2

Note: "Line to line 1" stands for electrodes 1 - 2, 3 - 6, 4 - 5 and 7 - 8, "line to line 2" stands for electrodes 1 or 2 - 3 or 6 and 4 or 5 - 7 or 8 of RJ-45 Modular jack.

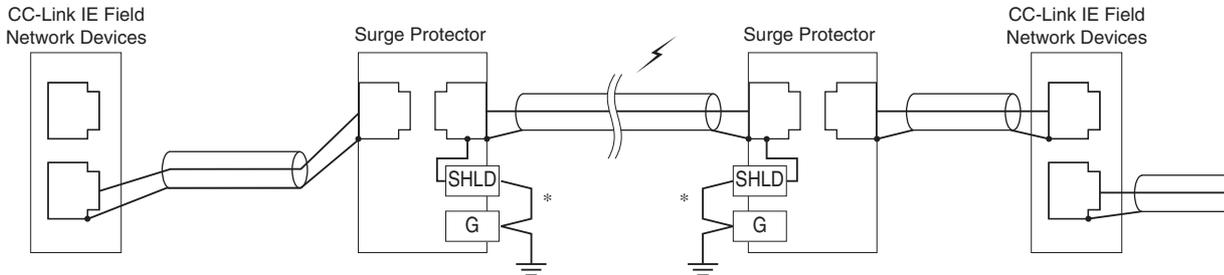
STANDARDS & APPROVALS

EU conformity:

EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

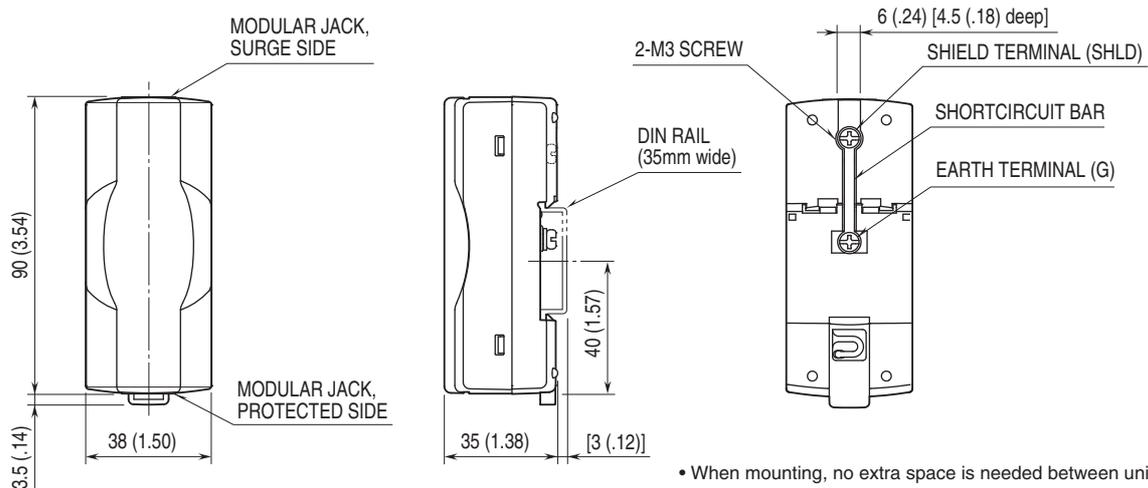
CONNECTION EXAMPLES

- Install the lightning surge protectors in places where it is considered that lightning surge may enter (where panels/cabinets are greatly separated, such as outdoor wiring).
- The maximum number of surge protectors that can be installed between devices is two (2). Take into account insertion loss 1 dB per surge protector as a rough indication.
- Refer to "CC-Link IE Field Network Cable Installation Manual" issued by CC-Link Partner Association for details.

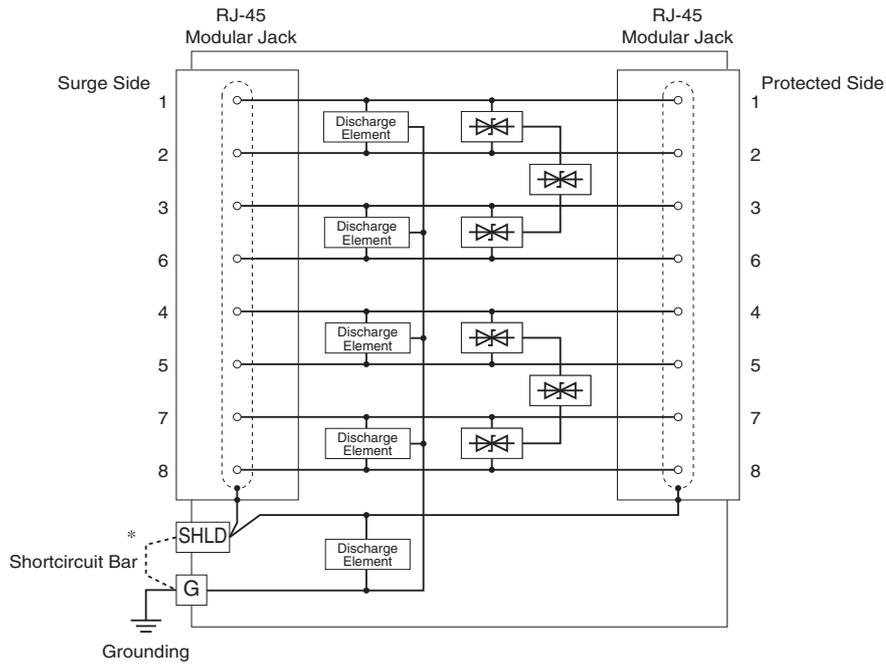


* LAN cable's shield wire (SHLD) is 'earthed' when shortcircuit bar is connected.
Make sure to connect the shortcircuit bar when you use shielded LAN cable.

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY



*Remove the shortcircuit bar to make the LAN cable's shield wire floating.



Specifications are subject to change without notice.