

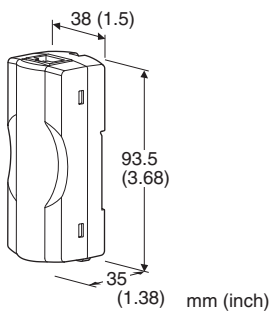
Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR ETHERNET

(PoE / 10 BASE-T / 100 BASE-TX / 1000 BASE-T)

Functions & Features

- Designed specifically for Ethernet network
- Conforms with 1000 Base-T, PoE and PoE Plus
- LAN cable's shield wire can be floating or grounding by a shortcircuit bar
- DIN rail mounting
- CE marking



MODEL: MDCAT-[1]

ORDERING INFORMATION

•Code number: MDCAT-[1]

Specify a code from below for [1].

(e.g. MDCAT-5E)

[1] CABLE CATEGORY

5E: CAT5e

6: CAT6

PACKAGE INCLUDES...

LAN cable connected to the protected device (STP, 1 meter)

APPLICABLE NETWORK

10 BASE-T: IEEE 802.3i

100 BASE-TX: IEEE 802.3u

1000 BASE-T: IEEE 802.3ab

PoE: IEEE 802.3af

PoE Plus: IEEE802.3at

GENERAL SPECIFICATIONS

Connection

Network: RJ-45 modular jack

Grounding: M3 screw terminal (torque 0.6 N·m)

Screw terminal: Nickel-plated brass

Housing material: Flame-resistant resin (black)

INSTALLATION

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

Operating humidity: 30 to 90 %RH (non-condensing)

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

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

Weight: 150 g (0.33 lbs)



PERFORMANCE

	LINE TO LINE (pair)		LINE TO LINE (PoE)	LINE TO EARTH
	MDCAT-5E	MDCAT-6		
Max. continuous operating voltage (Uc)	±6V	±3.3V	±58V	±150V
Voltage protection level (Up)	±15V max. @2kV	±10V max. @2kV	±100V max. @2kV	±600V max. @4kV
Leakage current @Uc	25µA	5µA	25µA	5µA
Response time	≤4 nsec.	≤4 nsec.	≤4 nsec.	≤20 nsec.
Max. discharge current (Imax)	100A	100A	100A	10kA
Nominal current (In)	1A			
Series resistance	Approx. 0Ω			

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

Surge protection: IEC 61643-21: 2000

(Categories C1, C2)

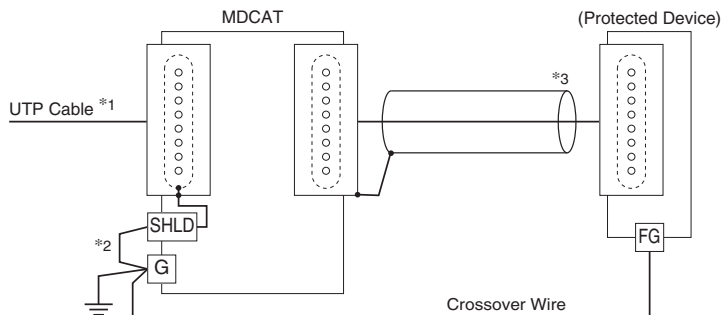
Transmission performance:

TIA/EIA-568-B.2 CAT5e (MDCAT-5E)

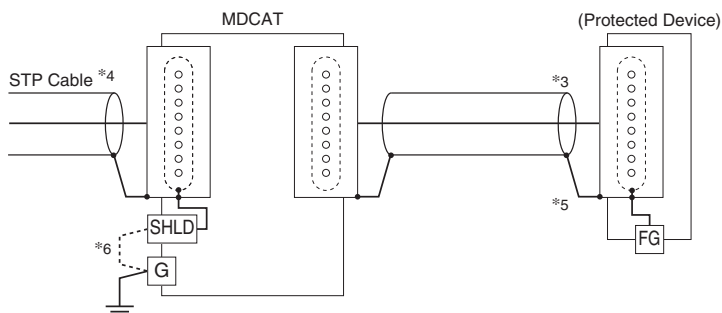
TIA/EIA-568-B.2 CAT6 (MDCAT-6)

CONNECTION EXAMPLES

■ PROTECTING NON-STP (UTP) DEVICE



■ PROTECTING STP DEVICE



*1. Unshield twisted-pair cable

*2. Maintain the shortcircuit bar. The protected device is earthed.

*3. Cable included in the product package or provided by customer.

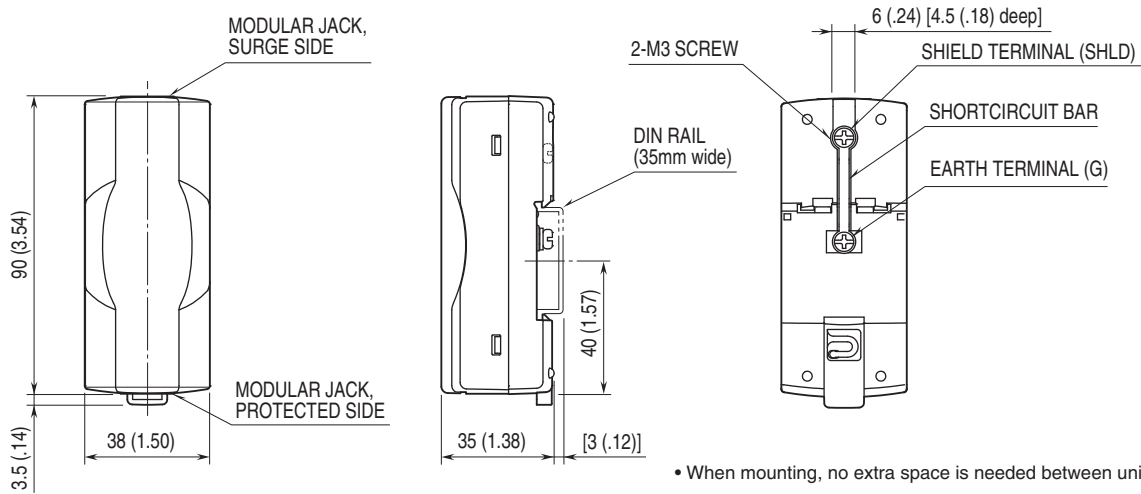
*4. Shield twisted-pair cable

*5. STP cable's shield wire serves as the crossover wiring.

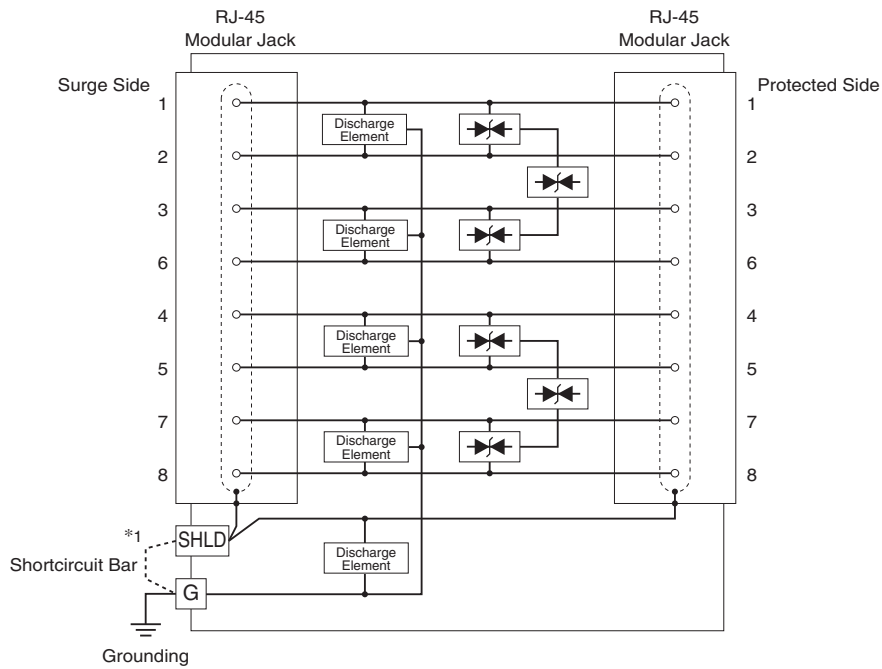
*6. The protected device is 'earthed' when the shortcircuit bar is connected. Remove the bar in order to switch to 'floating' state.



DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY



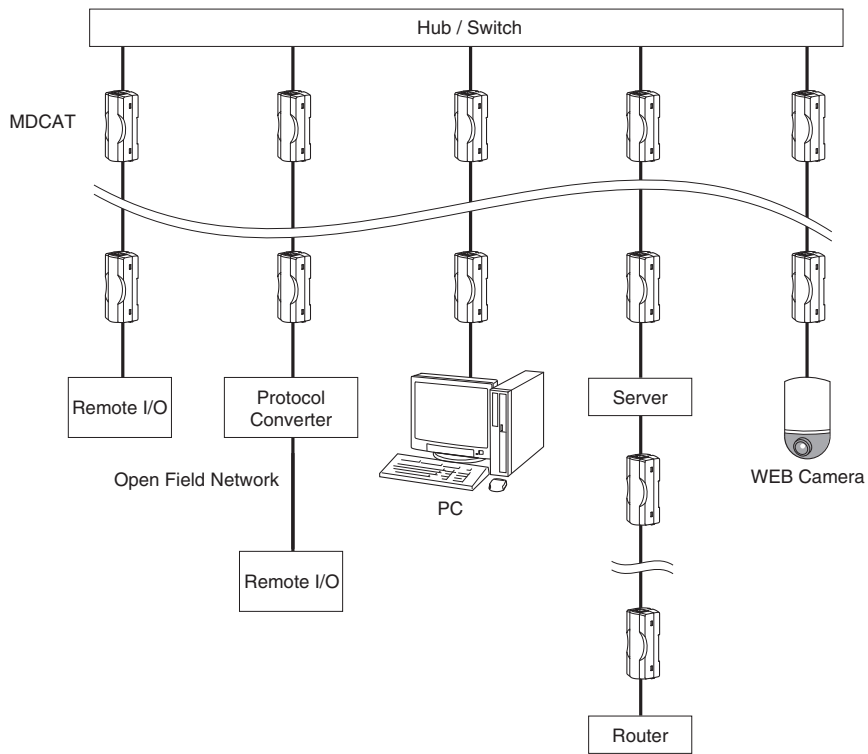
*1. Remove the shortcircuit bar when the LAN cable's shield wire is floating.

NOTE: Line to line (PoE): Terminal 1 & 2 to 3 & 6, 4 & 5 to 7 & 8

Line to line (pair): Terminal 1 to 2, 3 to 6, 4 to 5 and 7 to 8



SYSTEM CONFIGURATION EXAMPLES



Specifications are subject to change without notice.

