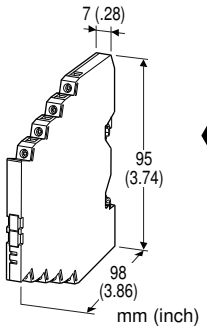
Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR RS-485 / RS-422

(ultra-slim)

Functions & Features

- High discharge current capacity 20 kA (8 / 20 µs), 1 kA (10 / 350 µs)
- Ultra-thin 7-mm-wide module can be mounted in high density
- Excellent protection employing multi-stage SPD circuits
- DIN rail mounting and grounding
- Shield terminal provided
- CE marking



MODEL: MD74R-[1][2]

ORDERING INFORMATION

- Code number: MD74R-[1][2]

Specify a code from below for each [1] and [2] (e.g. MD74R-FG)

For the safety approval code /E2, specify the product's destination country using Ordering Information Sheet (No. ESU-8060).

[1] SHIELD TERMINAL (to earth)

FF: Floating

FG: Grounding

[2] OPTIONS

Safety approval

blank: Without

/E2: CENELEC intrinsic safety (ATEX)

GENERAL SPECIFICATIONS

Construction: Slim-sized front terminal structure

Degree of protection: IP20

Connection: Euro terminal block (torque 0.3 N·m)

Applicable wire size: 0.2 – 2.5 mm^2

Grounding: DIN Rail

Housing material: Flame-resistant resin (black)

INSTALLATION

Operating temperature: -25 to +85°C (-13 to +185°F)
(See Safety Parameters for use in a hazardous location.)

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. Use a steel or copper rail.

Weight: 70 g (2.5 oz)

XIN TOP WORLD WIDE SERVICE
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

PERFORMANCE

Values for the floating type (FF). Shortcircuited for the grounding type (FG).

	LINE TO LINE	LINE TO SG	LINE/SG TO EARTH	SHLD TO EARTH
Max. continuous operating voltage (Uc)	±5V	5V	±160V	±160V *1
Voltage protection level (Up) @4kV (1.2 / 50 µs)	±25V	25V	±800V	±800V * 1
Leakage current @Uc	≤200µA	≤200µA	≤10µA	≤10µA*1
Response time	≤4 nsec.	≤4 nsec.	≤20 nsec.	≤20 nsec.*1
Approx. capacitance @ 100 kHz	300 pF	300 pF	100 pF	100 pF
Max. discharge current (Imax)	20kA (8 / 20 µs), 1.0kA (10 / 350 µs)			
Nominal current (I_N)	100mA			
Internal series resistance	2Ω ±10% per line			
Input attenuation	-0.5 dB max. @DC...2.0 MHz, Z_0 = 110Ω			

STANDARDS & APPROVALS

CE conformity:

ATEX Directive (94/9/EC)

Ex ia EN 60079-11: 2007

Category 1G EN 60079-26: 2007

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

Safety approval:

CENELEC: Intrinsic safety (ATEX)

Ⓔx II 1G, Ex ia IIC; T4 and T5

EN 60079-0: 2006

EN 60079-11: 2007

EN 60079-26: 2007

Surge protection: IEC 61643-21: 2000

(Categories C1, C2, D1)

SAFETY PARAMETERS

■ **CENELEC / ATEX IS DATA**

Ui (Vmax)	7V		
Ii (Imax)	any		
Ci	50 nF		
Li	0 µH		
Pi	Temp. Class	Range	Parameter
	T4	-25 to +40°C	1.3W
		-25 to +60°C	1.2W
		-25 to +80°C	1.0W
	T5	-25 to +40°C	1.0W

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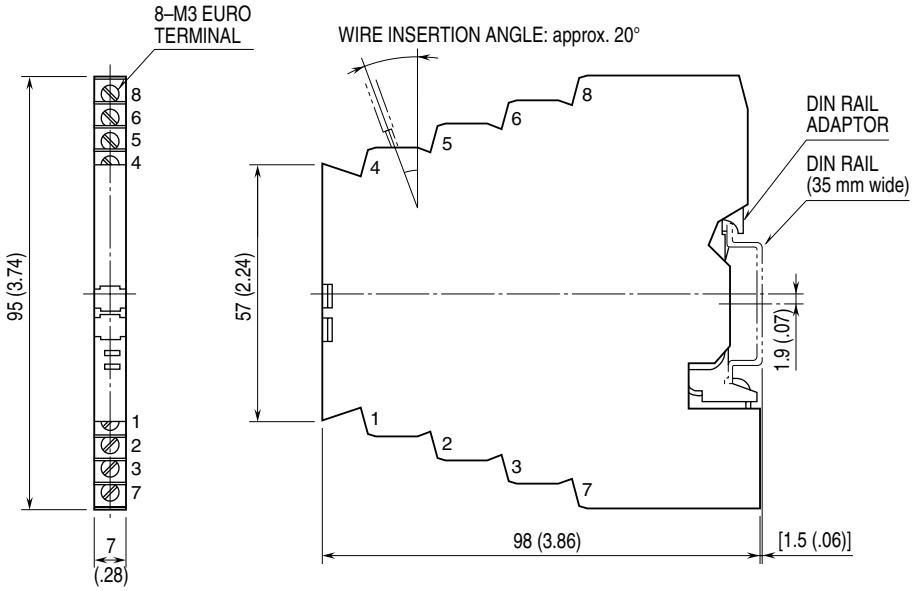
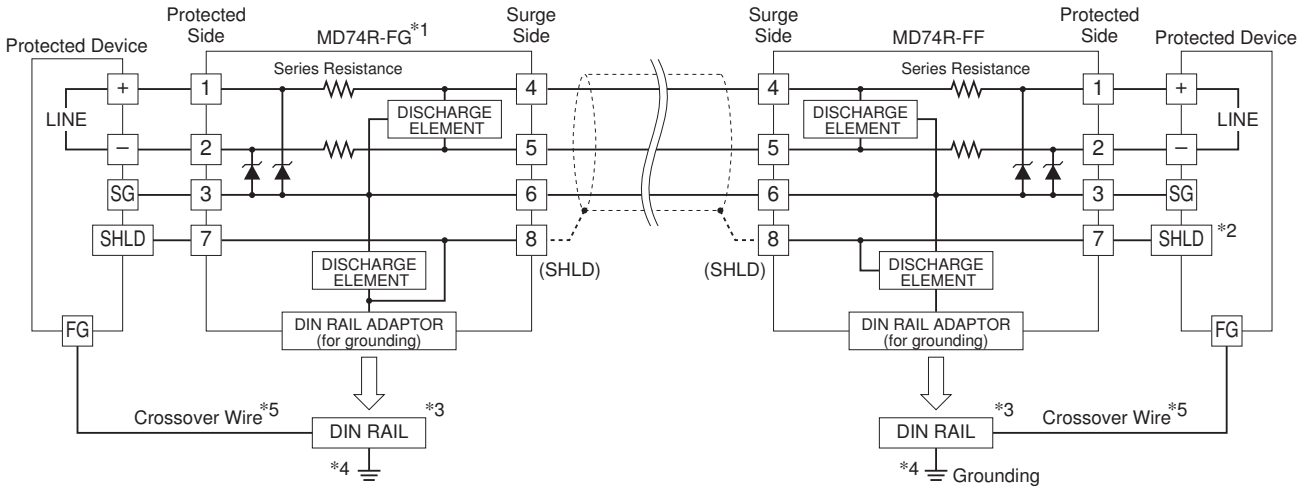
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Choose the MD74R-FG when the shield wire is to be grounded.
*2. When SHLD and SG terminals are not isolated, DO NOT connect the surge protector's terminal 7 to SHLD.
*3. Oxide film on the surface of an aluminium rail may lower the electric conductivity between this module and the ground. Use a steel or copper rail.
*4. Be sure to ground the DIN rail. Recommended grounding resistance max. 100 ohms.
*5. Cross-wire from the DIN rail to the metal housing of the protected device to equalize the ground potential. Ground only the surge protector when the protected device has no grounding terminal.

⚠ Specifications are subject to change without notice.

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