Lightning Surge Protectors for Electronics Equipment M-RESTER

LIGHTNING SURGE PROTECTOR FOR TWO-WIRE SIGNAL LOOP

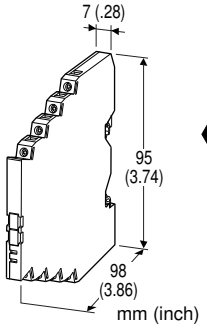
(ultra-slim; 2 channels)

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
- 2 channels packed in one housing
- Excellent protection employing multi-stage SPD circuits
- DIN rail mounting and grounding
- CE marking

Typical Applications

- Protecting a 2-wire transmitter loop
- Protecting an electronic device I/O



MODEL: MD72WD-[1][2]

ORDERING INFORMATION

- Code number: MD72WD-[1][2]

Specify a code from below for each [1] and [2].
(e.g. MD72WD-320)
For the safety approval code 2, specify the product's destination country using Ordering Information Sheet (No. ESU-8057).

[1] NOMINAL VOLTAGE

07: 7 V DC
16: 16 V DC
32: 32 V DC

[2] SAFETY APPROVAL

0: None
2: 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

MODEL NO.		MD72WD-07	MD72WD-16	MD72WD-32
Max. continuous operating voltage (Uc)	Line to Line	±7V	±16V	±32V
	Line to Earth	±7V	±16V	±32V
Voltage protection level (Up) @6kV (1.2 / 50 μs)	Line to Line	30V	45V	70V
	Line to Earth	35V	50V	75V
Leakage current @Uc	Line to Line	≤10μA	≤5μA	
	Other sections	≤10μA	≤5μA	
Response time	Line to Line	≤4 nsec.		
	Other sections	≤4 nsec.		
Max. discharge current (Imax)		20kA (8 / 20 μs), 1.0kA (10 / 350 μs)		
Nominal current (I_N)		250mA		
Internal series resistance		4.7Ω ±20% per line		

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**

	MD72WD-07	MD72WD-16	MD72WD-32
Ui (Vmax)	7V	16V	32V
Ii (Imax)	any	any	any
Ci	50 nF	35 nF	15 nF
Li	0 μH	0 μH	0 μH
	Temp. Class	Range	Parameter
Pi	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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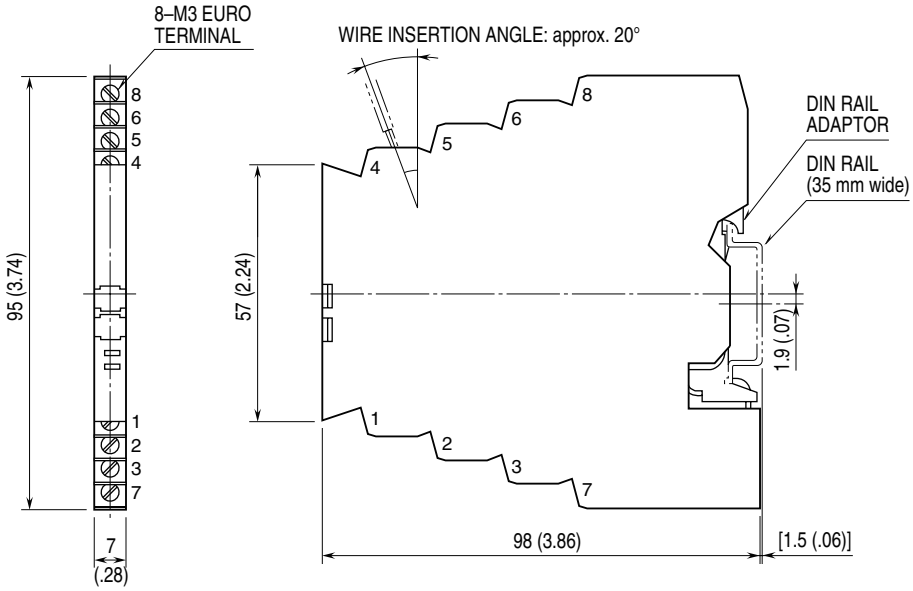
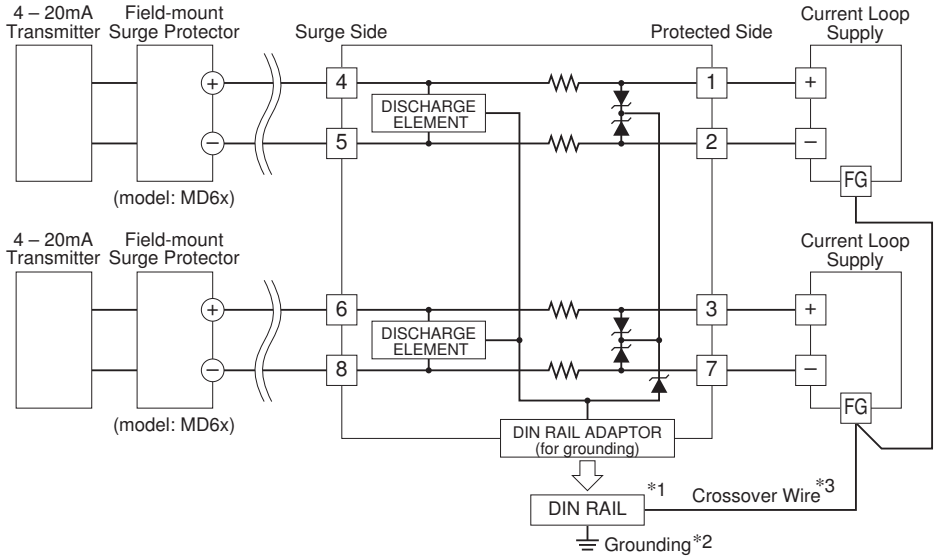
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. 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.
*2. Be sure to ground the DIN rail. Recommended grounding resistance ≤100
*3. Cross-wire between the DIN rail or the terminal 7 and the metal housing of the protected device to equalize the earth potential. Ground only the surge protector when the protected device has no ground terminal.

⚠ Specifications are subject to change without notice.

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