

# SAFE INSTALLATION MANUAL (ATEX APPROVAL)

## LIGHTNING SURGE PROTECTOR FOR STANDARD SIGNAL LINE & PULSE USE (conduit mount, weather-proof)

MODEL **MD6x-24**  
**MD6x-65**

### BEFORE USE ....

#### ■ SAFETY PRECAUTIONS

This manual describes important points of caution for safe use of this product in potentially explosive atmosphere. Please read this manual carefully before installing and operating the product.

#### ■ SPECIAL CONDITIONS FOR SAFE USE

The lightning surge protectors are provided with a male 1/2" NPT or M20 × 1.5 thread.

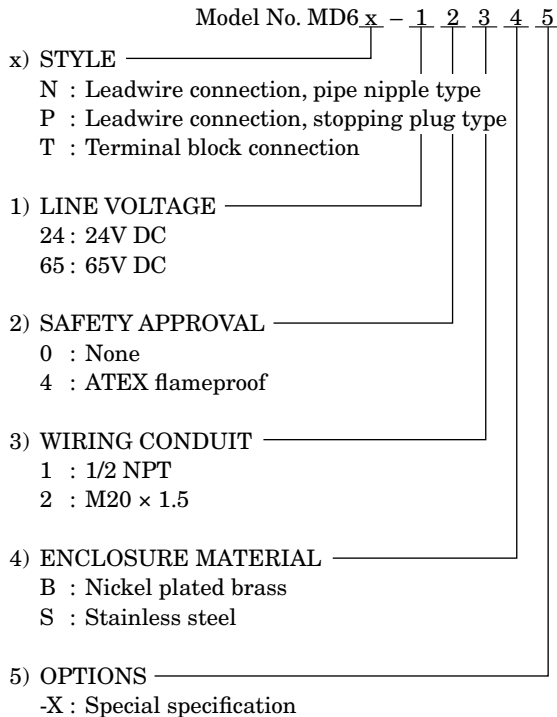
For electrical connection, the lightning surge protectors must be mounted to a certified metal enclosure in type of protection flameproof enclosure "db", the assembly complying with the requirements of EN 60079-1. Measures must be taken to ensure a good bonding connection and to prevent the connection from self-loosening. If the maximum ambient temperature is above 70°C, a cable and cable gland suitable for a temperature of at least 90°C shall be used, for the electrical connection of the Lightning Surge Protector type MD6T.

Ambient temperature range -40°C ... +80°C.

The relation between maximum ambient temperature and temperature class shall be taken from the following table:

Max. Ambient Temperature	Temperature Class
75°C	T6
80°C	T5

#### ■ MODEL NUMBER IDENTIFICATION



#### ■ MANUFACTURED DATE CODE IDENTIFICATION

The manufactured year and month can be identified by the serial number described on the specification label.

YEAR		Serial No. Y	M	xxxxxx
4 : 2014	A : 2020	1 : 2041		
5 : 2015	B : 2021	2 : 2042		
:	:	:		
9 : 2019	U : 2040	9 : 2049		
MONTH				
1991-2019(year)	2020-2052(year)			
A : January	M : January			
B : February	N : February			
C : March	P : March			
:	:			
L : December	Y : December			

### ⚠ WARNING

#### Explosions could result in death or serious injury:

- The cover for the MD6T must be fully engaged to meet explosion-proof/flameproof requirements.
- Do not remove the cover for the MD6T in explosive atmospheres when the circuit is alive.
- Before you remove the unit or mount it, or before you connect or disconnect the wiring, turn off the power supply and the input signal for safety. Do not disconnect unless the area is known to be non-explosive.
- Whenever you need to measure voltage across the terminals or apply a simulated input signal to the terminals, make sure that there is no danger of explosion in the atmosphere.
- Verify the certification of the product described on the specification label on the product.
- Verify that the operating atmosphere of the product is consistent with the appropriate hazardous locations certifications.
- Verify that the environmental temperature is within the temperature class required for the area.

#### Failure to follow these installation guidelines could result in death or serious injury:

- Make sure only qualified personnel perform the installation.

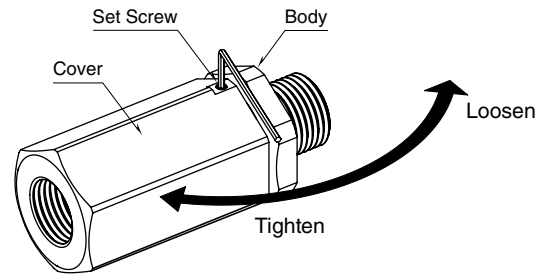
## ▲ SAFETY FEATURES & CAUTIONS

### ■ FLAMEPROOF APPROVAL

- ATEX
  - EU-Type Examination Certificate: KEMA 06ATEX0083X
  - Ⓜ II 2G Ex db IIC T5, T6 Gb
  - Zone 1
  - EN 60079-0
  - EN 60079-1
- Install the product according to local installation codes.
- The apparatus to be protected by the product and its wiring components shall be of a certified flameproof type, suitable for the conditions of use and correctly installed.
- Prior to installation, check that the safety class of this unit satisfies the system requirements.
- Before wiring, make sure there is no danger of explosion in the atmosphere.
- With 1/2 NPT thread cable entry conduits, the protected apparatus must have five or more full threads, and 3.5 or more effective threads must be engaged in connecting with the product.
- With M20 × 1.5 thread cable entry conduits, 5 or more effective threads of the protected apparatus must be engaged in connecting with the product.

- Squeeze the cable entry into the conduit with the proper tool (MD6T).
- Before turning the power supply on, be sure to close the cover tightly and tighten the set screw as shown in Figure 1 using a hexagon key wrench. When opening the cover, turn power supply off first and then loosen the set screw (MD6T).

Figure 1. Enclosure fastener



- Substitution of components may impair suitability for the hazardous location and may cause an explosion.
- Maximum continuous voltage (Uc)
  - MD6x-24: 28V
  - MD6x-65: 66V

## SCHEMATIC CIRCUITRY for ATEX FLAMEPROOF MODEL

