

X1-NIS-RLO/EM-03

SIL3 Electro-Magnetic Relay Out Module for 2A ND/F&G Loads

The X1-NIS-RLO/EM-03 electro-magnetic relay module is suitable for switching safety related circuits, up to SIL 3 level, for high risk industries. It provides isolation between input coils and output contacts, making available a safety NO contact for Normally De-energized (ND) or Fire & Gas (F&G) loads. A wide compatibility towards different DCS/PLC is guaranteed: driving pulse testing is permitted by a dedicated internal circuit, which prevents contact and LED flickering, while offering an acceptable resistance to the DO Card. To ease maintenance operations, field devices can be disconnected through a two-position insertion/extraction mechanism. This product requires a dedicated Termination Board.

FEATURES

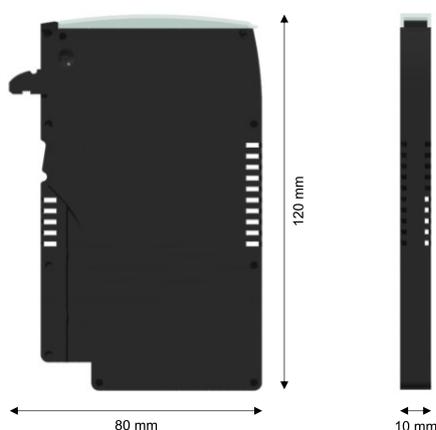
- SIL 3 / SC 3
- Installation in Zone 2 / Division 2
- Loop disconnection to ease maintenance operations
- Mechanical polarization key to prevent destructive mismatches
- Up to 2 A functional / 6 A inrush current
- Compatible with DCS/PLC pulse testing
- Three port isolation, Input/Output/Supply

ORDERING INFORMATION

Ordering codes

X1-NIS-RLO/EM-03-S: 1 channel

OVERALL DIMENSIONS



TECHNICAL DATA

General

Power dissipation: 0.7 W @ 24 Vdc System In, with 2 A load current, typical.

System In

24 Vdc nom (21.5 to 28.8 Vdc).

Current consumption: 18.5 mA @ 24 Vdc, typical.

Input impedance: 1.3 kΩ @ 24 Vdc, typical.

Field Supply

AC or DC voltage supply.

Voltage range: 0 to 250 Vac, 0 to 110 Vdc.

Field Out

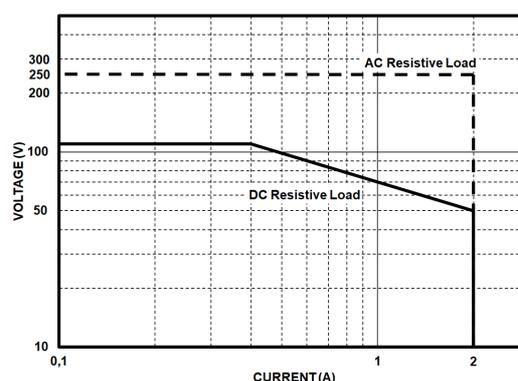
ND/F&G load.

Max ratings: 2 A 250 Vac 500 VA, 2 A 110 Vdc 100 W (resistive load).

Max inrush current: 6 A.

Operate / release time: ≤ 30 / 30 ms.

Output typical characteristics:



Isolation

System In/Field Out 2.5 kV.

Environmental conditions

Operating temperature: temperature limits -40 to +60 °C.

Storage temperature: temperature limits -45 to +80 °C.

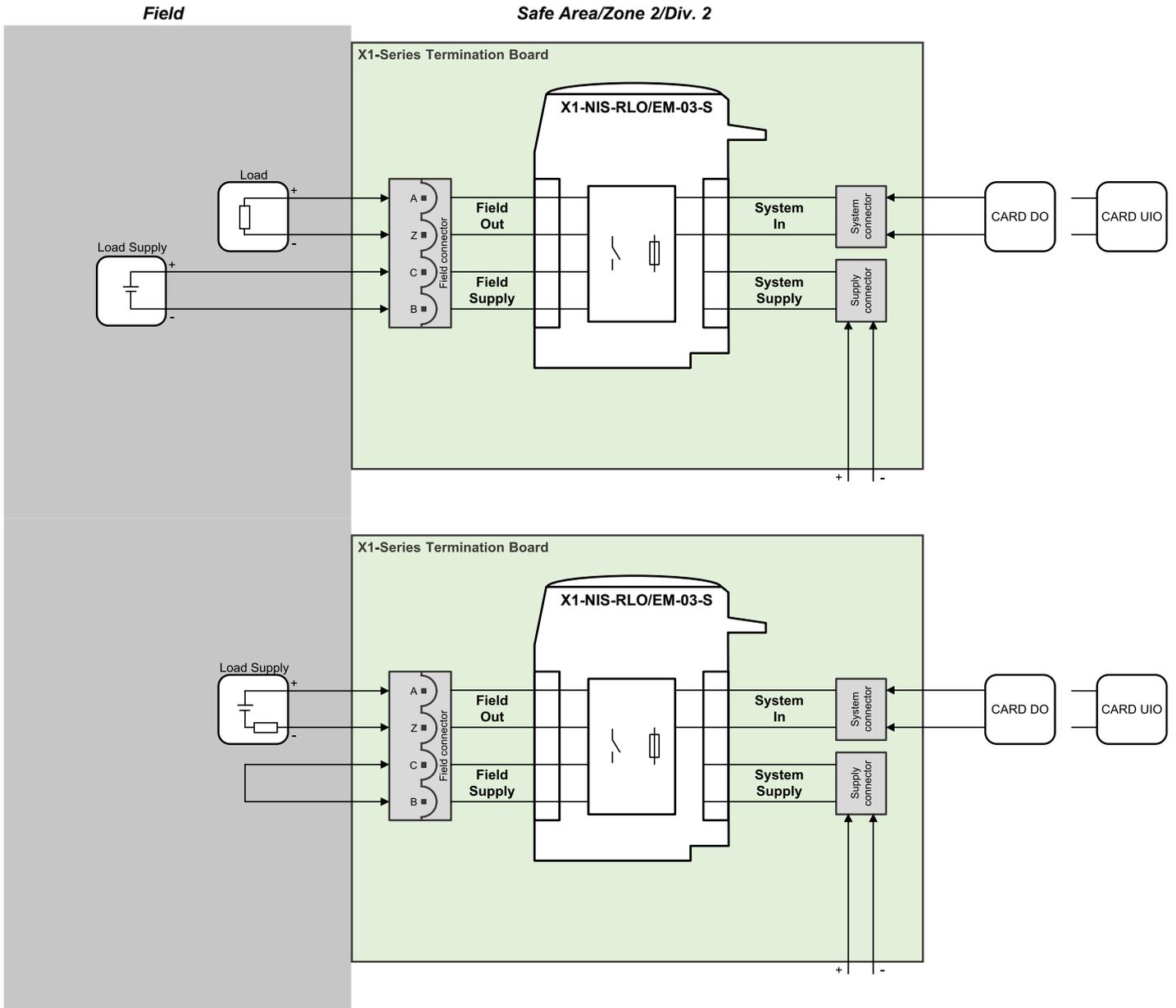
Mounting

On custom Termination Board. Mix only with electro-mechanical relays (X1-NIS-RLO/EM), input relays (X1-NIS-RLI) or pass-through modules (X1-NIS-PAS).

Weight: about 60 g.

Dimensions: Width 10 mm, Depth 80 mm, Height 120 mm.

FUNCTION DIAGRAM



*Additional installation diagrams may be found in Instruction Manual.

Temp. TMP0056 Rev.1

www.gminternational.com



Functional Safety Management Certification:
GM International is certified to conform to IEC61508:2010 part 1 clauses 5-6 for safety related systems up to and included SIL3. In addition, GM International products have been granted I.S. certificates from the most credited Notified Bodies in the world.

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