

# X1-NIS-RLO/SS-01

## SIL3 Solid-State Relay Out Module for 2A NE Loads

The X1-NIS-RLO/SS-01 solid-state 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 Energized (NE) 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

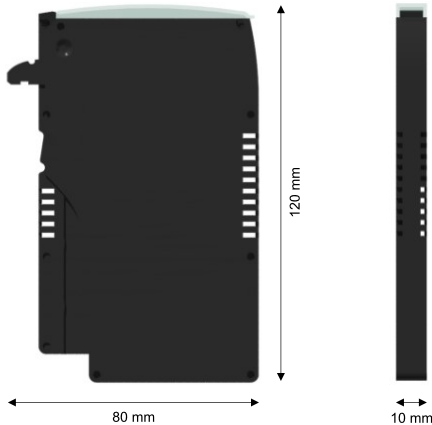
- SIL 3 / SC 3
- Installation in Zone 2 / Division 2
- Loop disconnection to ease maintenance operations
- Mechanical polarization key to prevent destructive mismatches
- Up to 2 A functional / 6 A inrush current
- Compatible with DCS/PLC pulse testing
- Load disconnection on both supply lines available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

### ORDERING INFORMATION

#### Ordering codes

X1-NIS-RLO/SS-01-S: 1 channel

### OVERALL DIMENSIONS



### TECHNICAL DATA

#### General

**Power dissipation:** 1.0 W @ 24 Vdc System Supply, with 2 A load current, typical.

#### System Supply

24 Vdc nom (18 to 28.8 Vdc).

**Current consumption:** 12 mA @ 24 Vdc and relay energized, typical.

#### System In

24 Vdc nom (18 to 28.8 Vdc).

**Current consumption:** 12 mA @ 24 Vdc, typical.

**Input impedance:** 2 kΩ @ 24 Vdc, typical.

#### Field Supply

DC voltage supply.

**Voltage range:** 0 to 60 Vdc.

#### Field Out

NE load.

**Max ratings:** 2 A 60 Vdc 120 W.

**Max inrush current:** 6 A.

**Operate / release time:** 30 / 30 ms, typical.

#### Isolation

System In/Field Out 2.5 kV; System Supply/Field Out 2.5 kV; System In/System Supply 500 V.

#### Environmental conditions

**Operating temperature:** temperature limits -40 to +70 °C.

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

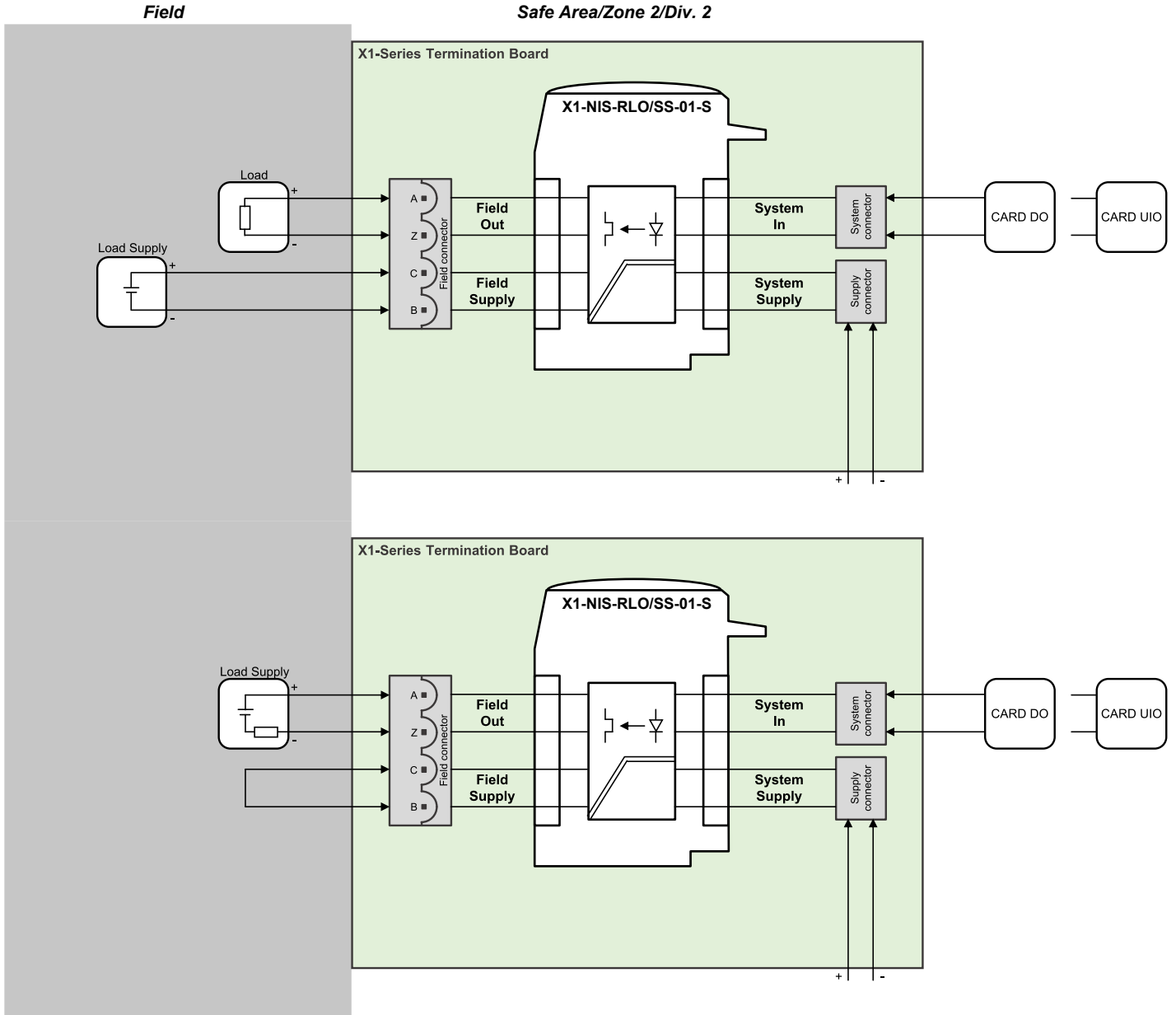
#### Mounting

On custom Termination Board.

**Weight:** about 50 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

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**FSM SIL 3** 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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