

D5291-097

SIL3 48 Vdc Relay Out Module for 10 A ND Loads

The D5291-097 is a relay module suitable for switching safety related circuits, up to SIL 3 level, for high risk industries. It provides isolation between input and output contacts. It makes available a NO and a NC contact for Normally De-energized (ND) loads, with Normally Energized coil, and a contact for service purpose. Compatibility with specific DO cards with pulse testing needs to be verified. This relay module is not suitable for low-current consumption applications (system-to-system signalling, driving LEDs, etc.).

FEATURES

- SIL 3 / SC 3 for ND loads with NE driver
- Up to 10 A functional / 16 A inrush current
- Service contact available
- Input/Output isolation

ORDERING INFORMATION

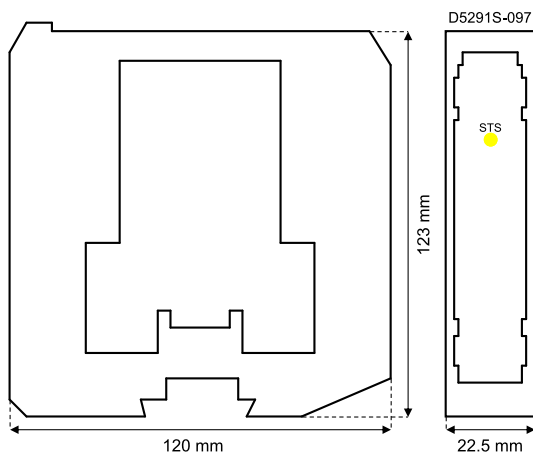
Ordering codes

D5291S-097: 1 channel

Accessories

DIN-Rail stopper MCHP196.

OVERALL DIMENSIONS



TECHNICAL DATA

Input

48 Vdc nom (42 to 54 Vdc), reverse polarity protected. Relay coils are internally protected with suppressor diodes.

Current consumption: 30 mA @ 48 Vdc, typical.

Power dissipation: 1.5 W @ 48 Vdc, typical.

Output

Voltage free SPDT relay contact. Terminals 13-15, open in normally energized condition, closed when relay is de-energized (safe state). Service load output (not SIL) at terminals 13-14 is normally open when relay is de-energized, closed in energized relay condition.

Contact material: Ag Alloy (Cd free) or AgSnO₂.

Contact rating: 10 A 250 Vac 2500 VA, 10 A 250 Vdc 300 W (resistive load).

Contact inrush current: 16 A @ 24 Vdc, 250 Vac.

Contact min. switching current: 100 mA.

DC and AC load breaking capacity: refer to Instruction Manual.

Mechanical / electrical life: 10 * 10⁶ / 5 * 10⁴ operation, typical.

Operate / release time: 15 ms / 5 ms, typical.

Isolation

In/Out 2.5 kV.

Environmental conditions

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

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

Mounting

DIN-Rail 35 mm, or on custom Term. Board.

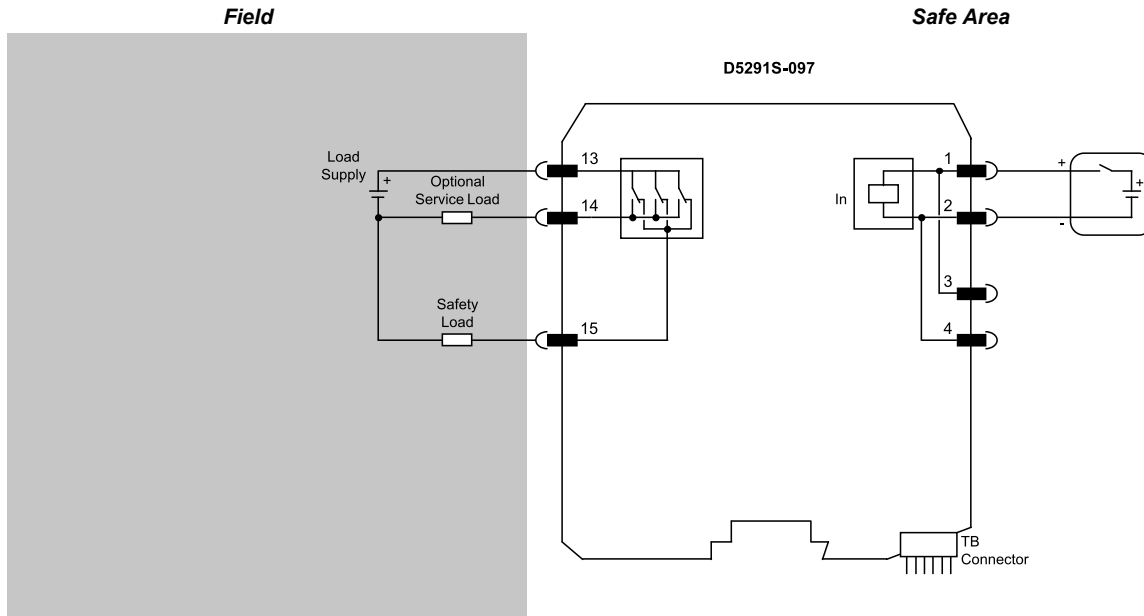
Weight: about 165 g.

Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm² (13 AWG).

Dimensions: Width 22.5 mm, Depth 123 mm, Height 120 mm.

FUNCTION DIAGRAM

Additional installation diagrams may be found in Instruction Manual.



Temp. TMP0008 Rev.1



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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