

D5290-078/SA

SIL3 Relay Out Module for 5 A NE/ND Loads

The D5290-078/SA 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 up to four NO contacts and two NC contacts, which can be externally connected for multiple Normally Energized (NE) or Normally De-energized (ND) loads, with single or both supply lines disconnection, and additional service loads. 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 NE/ND loads with NE driver
- Up to 5 A functional / 8 A inrush current
- Load disconnection on both supply lines available
- Service contact available
- Multiple contacts (up to 3 NE loads)
- Input/Output isolation

ORDERING INFORMATION

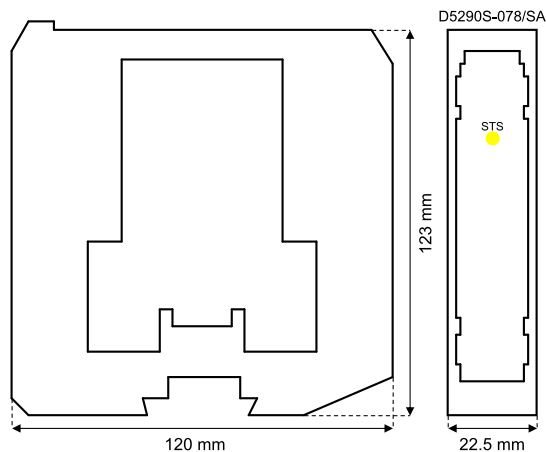
Ordering codes

D5290S-078/SA: 1 channel

Accessories

DIN-Rail stopper MCHP196.

OVERALL DIMENSIONS



TECHNICAL DATA

Input

24 Vdc nom (21.6 to 27.6 Vdc), reverse polarity protected. Relay coils are internally protected with suppressor diodes.

Current consumption: 40 mA @ 24 Vdc, typical.

Power dissipation: 1.0 W @ 24 Vdc, typical.

Output

2 voltage free SPDT (= NO contact + 1 or 2 parallel NC contacts) relay contacts identified with outputs: Out S_1 & Out P_1 (1NC) and Out S_3 & Out P_2 (2 NC); 1 voltage free SPST (NO) relay contacts identified with: Out S_2. Terminals 13-14 (Out S_1), 15-16 (Out S_2) and 23-24 (Out S_3) are: open when relay is de-energized, closed in energized relay condition. Terminals 17-18 (Out P_1) and 19-20 (Out P_2) are: closed when relay is de-energized, open in energized relay condition.

Contact material: Ag Alloy (Cd free).

Contact rating: 5 A 250 Vac 1250 VA, 5 A 250 Vdc 175 W (resistive load).

Contact inrush current: 8 A @ 30 Vdc, 250 Vac.

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

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

Operate / release time: 7 ms / 8 ms, typical.

Isolation

Input/All Outs 2.5 kV; Out S_1 & Out P_1/Out S_3 & Out P_2, Out S_2 500 V; Out S_3 & Out P_2/Out S_2 500 V.

Environmental conditions

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

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

Mounting

DIN-Rail 35 mm.

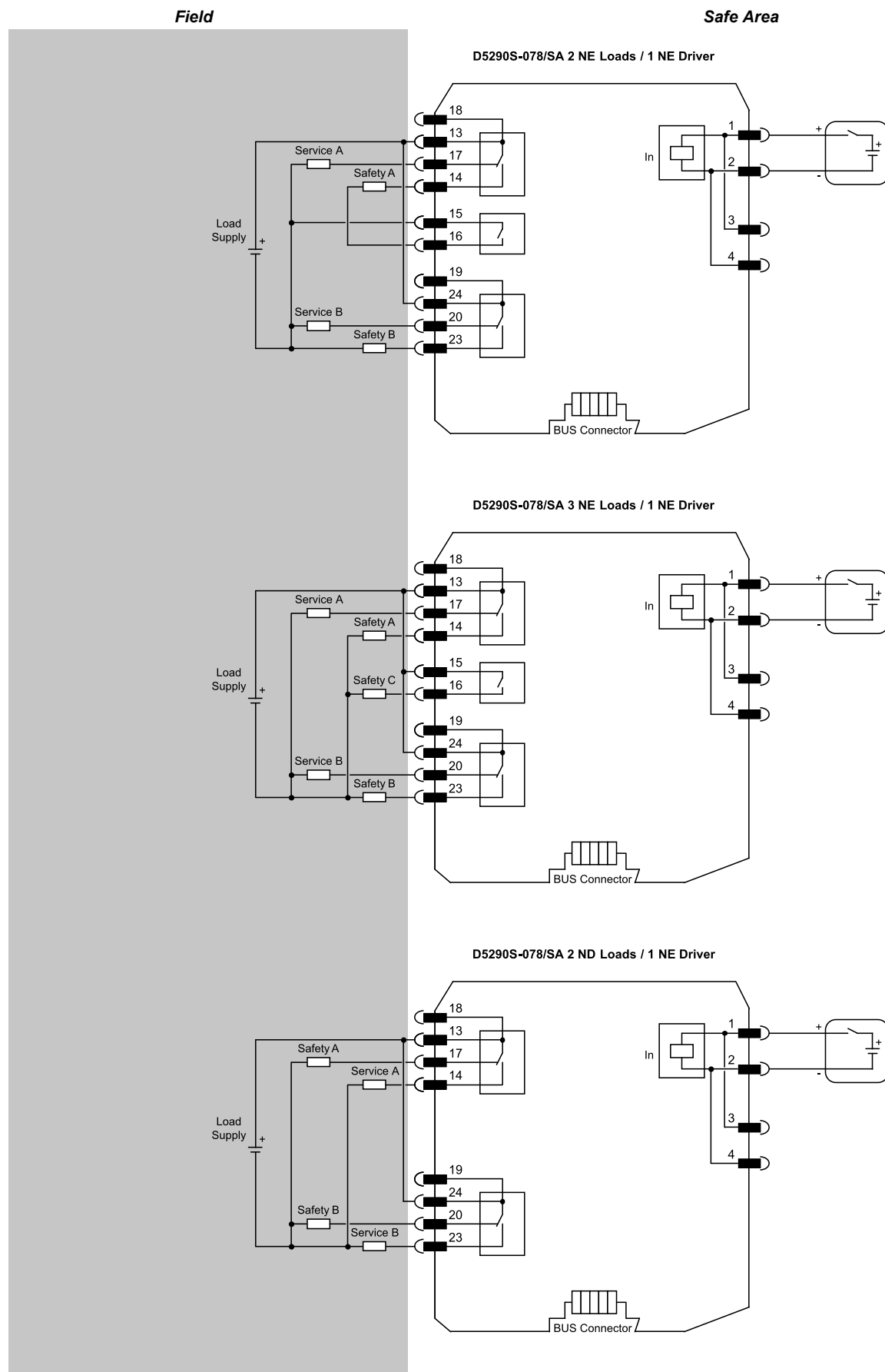
Weight: about 145 g.

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.



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.

Data specified in this document are merely descriptive of the products and should be integrated with relevant technical specifications. Our products are in constant development and the information presented herein refers to the time of document issue. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. Terms & Conditions can be found at our website. For more information refer to instruction manual.