

D5094-104

SIL3 Relay Low-Volt Module for 5 A NE/ND Loads

The D5094-104 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 2+2 NO relay contacts connected in parallel and then in series to avoid spurious trip and to increase process availability. High process availability SIL 3 Safety Function for both Normally Energized (NE) and Normally De-energized (ND) / F&G loads is available. Load can be isolated from supply on both polarities. This model is specifically designed to reach high functional safety at input voltage.

FEATURES

- SIL 3 / SC 3 for NE/ND loads with NE/ND driver
- Installation in Zone 2
- Up to 5 A functional / 6 A inrush current
- Low input voltage
- Load disconnection on both supply lines available
- High process availability to avoid spurious trips
- Compatible with DCS/PLC pulse testing
- Service contact available
- Input/Output isolation

ORDERING INFORMATION

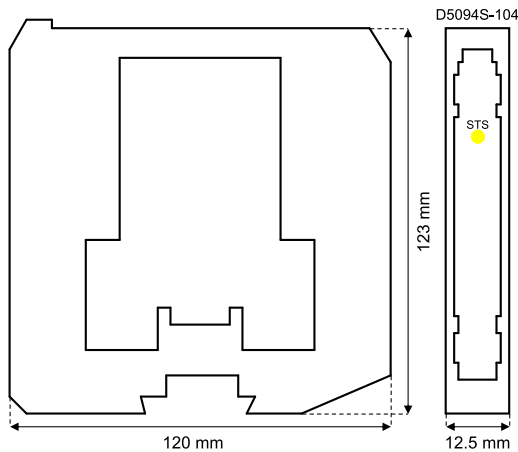
Ordering codes

D5094S-104: 1 channel

Accessories

DIN-Rail stopper MCHP196.

OVERALL DIMENSIONS



TECHNICAL DATA

Input

24 Vdc nom (20 to 28.8 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

Voltage free 2+2 SPST relay contact (2 paralleled contacts in series) at terminals 7-11 and 8-12, close when relay energized, open in de-energized condition.

Contact material: Ag Alloy (Cd free), gold plated.

Contact rating: 5 A 250 Vac 1250 VA, 5 A 250 Vdc 140 W (resistive load).

Contact min. switching current: 1 mA.

Contact inrush current: 6 A @ 24 Vdc, 250 Vac.

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

Mechanical / electrical life: 5 * 10⁶ / 3 * 10⁴ operation, typical.

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

Isolation

Out/In 2.5 kV.

Environmental conditions

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

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

Mounting

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

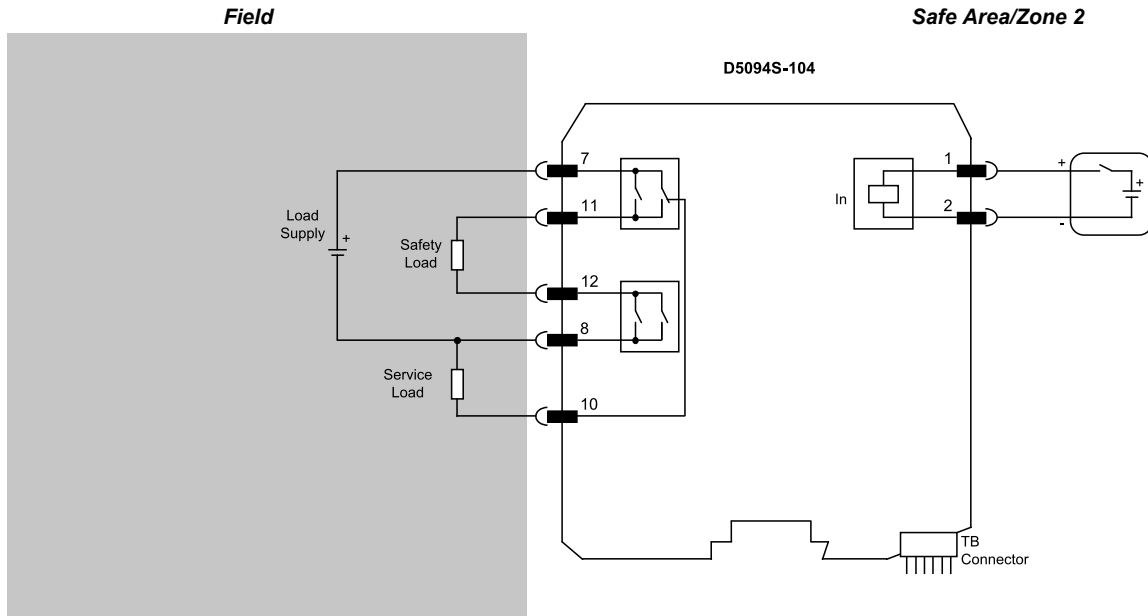
Weight: about 125 g.

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

Dimensions: Width 12.5 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.

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