

# D5091

## SIL3 Relay Out Module for 5 A ND Loads

The D5091 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 either Normally De-energized or Normally Energized coil, and a contact for service purpose. 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.

### FEATURES

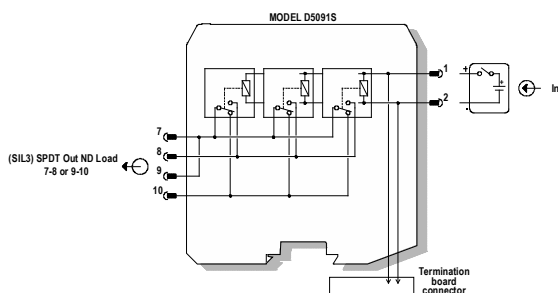
- SIL 3 / SC 3 for ND/F&G loads with ND/NE driver
- Installation in Zone 2/Div. 2
- Up to 5 A functional / 6 A inrush current
- Compatible with DCS/PLC pulse testing
- Service contact available
- Input/Output isolation

### FUNCTION DIAGRAM

Additional installation diagrams may be found in Instruction Manual.

Field

Safe Area/Zone 2/Div. 2



### 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:** 45 mA @ 24 Vdc, typical.

**Power dissipation:** 1.1 W @ 24 Vdc, typical.

#### Output

Voltage free SPDT relay contact. Terminals 7-8, open when relay de-energized, close in energized condition. Terminals 9-10, close when relay de-energized, open in 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 \* 10<sup>6</sup> / 3 \* 10<sup>4</sup> operation, typical.

**Operate / release time:** 55 / 30 ms, typical.

#### Isolation

Input/Output 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 mm<sup>2</sup> (13 AWG).

**Dimensions:** Width 12.5 mm, Depth 123 mm, Height 120 mm.

### ORDERING INFORMATION

D5091S: 1 channel

#### Accessories

DIN-Rail stopper MCHP196.