

Characteristics:

General Description:

The fault output signaling module D1091S has been designed to provide common fault output signals, available on D1000 series Power Bus enclosures.

The cumulative fault signal can be fed to the D1091S via power bus connector or dedicated input terminal block, and drives a SPDT voltage free relay contact for remote alarming. The relay is normally energized (no fault condition, yellow LED); it de-energizes when fault signal is detected (red LED) or when power supply voltage is below lower limit.

Signaling LEDs:

Power supply indication (green), Relay condition (yellow), Fault detection (red).

EMC:

Fully compliant with CE marking applicable requirements.

Technical Data:

Supply: 24 Vdc nom (20 to 30 Vdc) reverse polarity protected, ripple within voltage limits ≤ 5 Vpp.

Current consumption @ 24 V: 30 mA when relay is energized.

Power dissipation: 0.7 W with 24 V supply voltage, relay energized.

Max. power consumption: at 30 V supply voltage, relay energized, 1 W.

Isolation (Test Voltage):

Out/Supply 1.5 KV; In/Out 1.5 KV.

Input:

Fault signal from D1000 module power bus connector (requires /B enclosure) or voltage free contact provided on terminal block.

Output: voltage free SPDT relay contact.

Contact material: AgNi90/10.

Contact rating: 2 A 40 Vac 100 VA, 2 A 40 Vdc 80 W (resistive load).

Mechanical / Electrical life: $15 \times 10^6 / 1 \times 10^6$ operation, typical.


Operate / Release time: 5 / 2 ms typical.

Bounce time NO / NC contact: 1 / 5 ms.

Response time: 20 ms.

Frequency response: 10 Hz maximum.

Compatibility:

 CE mark compliant.

Environmental conditions:

Operating: temperature limits -20 to + 60 °C,

relative humidity max 90 % non condensing, up to 35 °C.

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

Mounting:

T35 DIN Rail according to EN50022.

Weight: about 100 g.

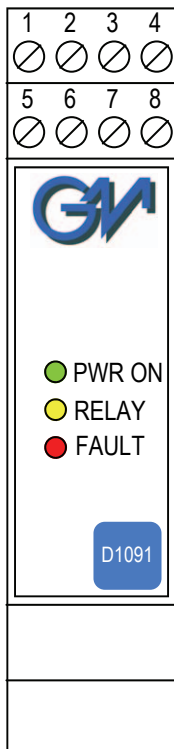
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm².

Location: Safe Area/Non Hazardous Locations.

Protection class: IP 20.

Dimensions: Width 22.5 mm, Depth 99 mm, Height 114.5 mm.

Front Panel and Features:



- D1000 series cumulative fault using power bus connector is signaled via the D1091S.
- D1091S unit can be mounted close to I.S. modules (without 50 mm distance) because input and output are on the same side (safe).
- SPDT Relay Output for fault signaling.
- Input/Output isolation.
- EMC Compatibility to EN61000-6-2, EN61000-6-4.
- High Reliability, SMD components.
- Simplified installation using standard DIN Rail and plug-in terminal blocks.

Ordering Information:

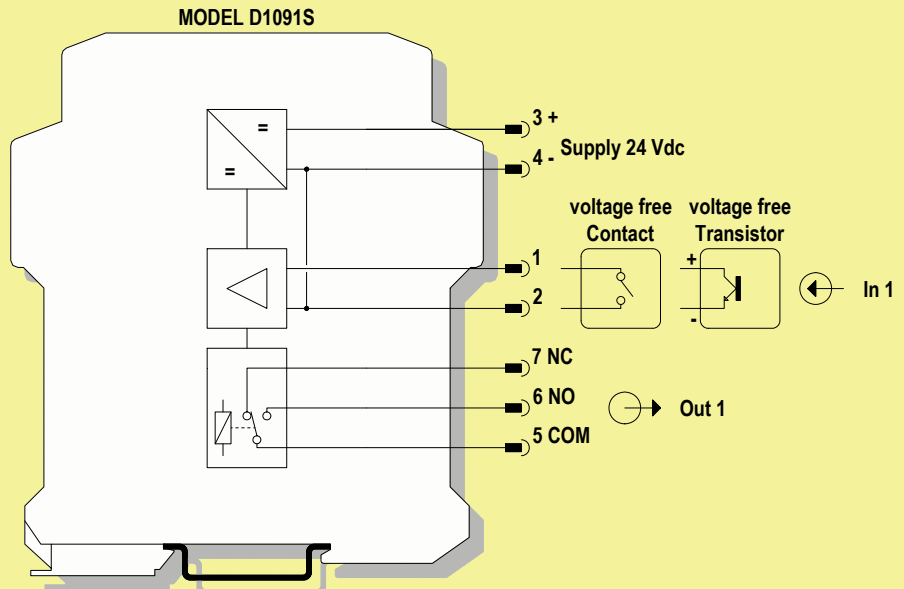
Model:	D1091S	
Power Bus enclosure		/B

Image:



Function Diagram:

SAFE AREA
NON HAZARDOUS LOCATION



Relay contact shown in de-energized position