GM INTERNATIONAL TECHNOLOGY FOR SAFETY

D2052

Relay Output Repeater DIN-Rail Model D2052M

Characteristics:

General description:

D2000M series Intrinsically Safe Multiplexing System consists of one to four Analog-Temperature Multiplexer units model D2010M, up to twelve Expander units model D2011M, or up to four Digital Multiplexer units model D2030M, mounted in Hazardous Area/Hazardous Locations Zone 1-2, Gas Group IIC-IIB-IIA T4 or Class I, Division 1-2, Group A, B, C, D T4 and connected via a single/redundant 2 wires data communication/supply line to a Modbus Gateway unit model D2050M, mounted in Safe Area/Non Hazardous Locations and connected to a PLC, DCS or PC.
The D2052M unit is primarily intended for replication of proximity sensor or voltage free contact status of devices located in Hazardous Area/Hazardous Locations in the Safe Area/Non Hazardous Locations. When connected to D2050M unit, it repeats the status of each D2030M digital input multiplexer unit.
The unit is driven by the Gateway D2050M via a dedicated bus.
Application of this devices allows the reduction in cabling complexity where digital status are to be repeated in discrete form, in addition to the capability of analyzing them via Modbus. The D2052M unit is equipped with 32 relay output SPDT contacts.
The repeaters have the same channel capability as the digital field devices, so that every input unit can be repeated on an output unit.
The assignment between input (field) and output (Safe Area/Non Hazardous Locations) devices is managed by the software of the D2050M and corresponding internal settings.
The relay output is of the changeover type allowing the use of normally close or normally open contacts.

Features:

- Output Repeater for D2030M Digital Multiplexer.
- SPDT Relay Output Signals.
- High density, 32 channels per unit, 128 channels per system.
- EMC Compatibility to EN61000-6-2, EN61000-6-4.
- Simplified installation using standard DIN Rail mounting units.

Ordering Information:

Model:	D2052M

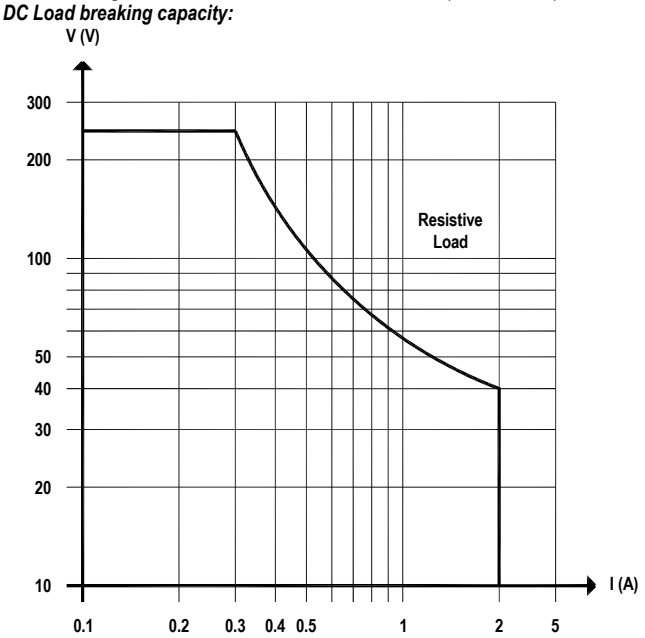
Technical Data:

Supply:
24 Vdc nom (20 to 30 Vdc) reverse polarity protected,
ripple within voltage limits ≤ 5 Vpp.
Current consumption @ 24 V: 300 mA with relays energized.
Power dissipation: 7.2 W with 24 V supply voltage and relays energized.
Max. power consumption: at 30 V supply voltage and relays energized 11.0 W.

Isolation (Test Voltage):
Out/In 1.5 KV; Out/Supply 1.5 KV; Out/Out 1.5 KV.

Input:
via D2050M dedicated bus.

Output:
voltage free SPDT relay contact.
Contact material: AgNi90/10.
Contact rating: 2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W (resistive load).
DC Load breaking capacity:



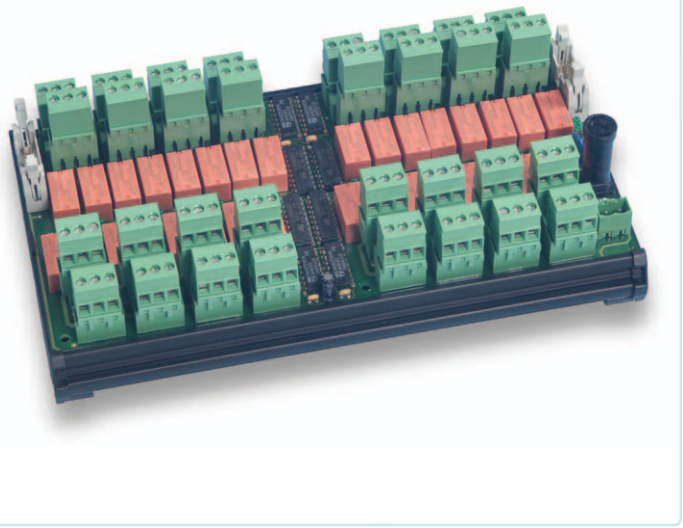
Mechanical / Electrical life: 15 * 10^6 / 1 * 10^5 operation, typical.
Operate / Release time: 5 / 2 ms typical.
Bounce time NO / NC contact: 1 / 5 ms.
Response time: 20 ms.
Frequency response: 10 Hz maximum.

Compatibility:
CE CE mark compliant, conforms to 89/336/CEE EMC Directive.

Environmental conditions:
Operating: temperature limits – 40 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 780 g.
Connection: by polarized plug-in disconnect screw terminal blocks to accomodate terminations up to 2.5 mm^2.
Location: Safe Area/Non Hazardous Locations installation.
Protection class: IP 20.
Dimensions: Width 127 mm, Length 220 mm, Depth 78 mm.

Image:



Function Diagram:

SAFE AREA/NON HAZARDOUS LOCATIONS