Specification Sheet G2R04-001

General Purpose 1x4 Relay Module DC-10MHz
DB-25 connectors with 8-wires (8P4T)
Series G2R04

September 2006

General

The relay-based G2R04 is a general purpose relay switching module perfect for ATE or data applications. This data sheet covers a configuration with up to an 8-wire 1x4 (8P4T) relay section. It provides a high performance, low cost solution for data or analog applications. Additional special configurations can be made per spec by contacting the factory.

Ultra-high reliability relay elements are coupled with control and status circuitry. The module also features hot-swap control technology for easy maintenance.

For control and DC power, the module must be installed into any G2 type mainframe controller. The mainframe must have either the -200, D200, -207 or -D207 power supply configuration. Optionally, the -600, -D600, -100 or -D100 power supply configuration could be used if the -6x suffix is specified on the module.

Applications

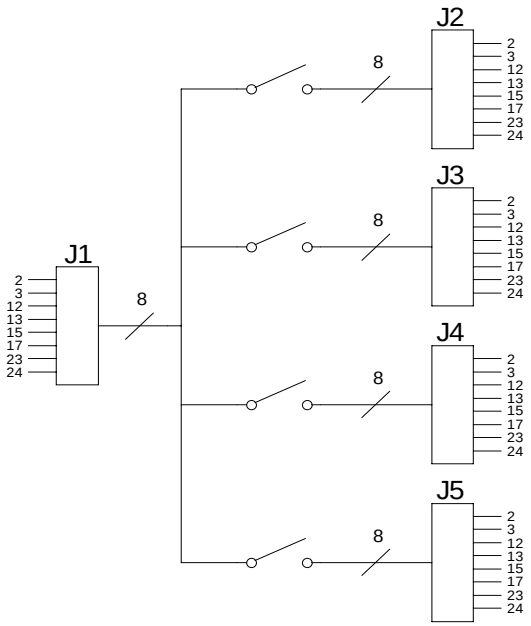
- ATE systems
- Communication installations
- General purpose signal routing
- Switching power (AC/DC)
- Satellite control centers
- Telemetry data routing

Features

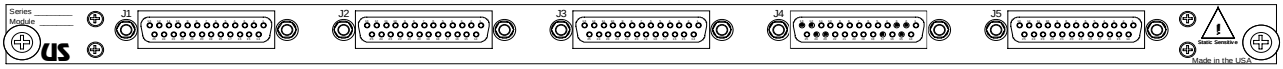
- High reliability relay elements
- DC to 10MHz bandpass (min)
- Standard DB-25S connectors (others optional)
- Hot-Swap module technology
- Rugged aluminum shielded enclosure
- Built-in control and status circuitry

Configurations

Model Number	Configuration	Conn	Contacts
G2R04-1X4-202	One 1x4, 2-wire	DB-25S	1 amp
G2R04-1X4-204	One 1x4, 4-wire	DB-25S	1 amp
G2R04-1X4-206	One 1x4, 6-wire	DB-25S	1 amp
G2R04-1X4-208	One 1x4, 8-wire	DB-25S	1 amp



NOTE: *Only switched "wires" are noted in the diagram above. All other pins can be configured as unswitched "through paths", or non-connected.*



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Connector J1: (Common Port)

Pin	Signal	Pin	Signal
1	Through Path 01	14	Through Path 10
2	Wire 01	15	Wire 05
3	Wire 02	16	Through Path 11
4	Through Path 02	17	Wire 06
5	Through Path 03	18	Through Path 12
6	Through Path 04	19	Through Path 13
7	Through Path 05	20	Through Path 14
8	Through Path 06	21	Through Path 15
9	Through Path 07	22	Through Path 16
10	Through Path 08	23	Wire 07
11	Through Path 09	24	Wire 08
12	Wire 03	25	Through Path 17
13	Wire 04		

NOTES:

1. For reduced configurations, the 2-wire version has just wires 01-02, the 4-wire version includes wires 01-04, and the 6-wire version includes wires 01-06. The "unpopulated" wires are not connected.

2. Internal jumpers for each port are included to provide the "through paths" as shown in the pin assignments. Removing the jumper provides a non-connect condition for that pin.

3. All wires are switched together (not independently controllable).

Connector J2: (Port 01)

Pin	Signal	Pin	Signal
1	Through Path 01	14	Through Path 10
2	Wire 01	15	Wire 05
3	Wire 02	16	Through Path 11
4	Through Path 02	17	Wire 06
5	Through Path 03	18	Through Path 12
6	Through Path 04	19	Through Path 13
7	Through Path 05	20	Through Path 14
8	Through Path 06	21	Through Path 15
9	Through Path 07	22	Through Path 16
10	Through Path 08	23	Wire 07
11	Through Path 09	24	Wire 08
12	Wire 03	25	Through Path 17
13	Wire 04		

Connector J3: (Port 02)

Pin	Signal	Pin	Signal
1	Through Path 01	14	Through Path 10
2	Wire 01	15	Wire 05
3	Wire 02	16	Through Path 11
4	Through Path 02	17	Wire 06
5	Through Path 03	18	Through Path 12
6	Through Path 04	19	Through Path 13
7	Through Path 05	20	Through Path 14
8	Through Path 06	21	Through Path 15
9	Through Path 07	22	Through Path 16
10	Through Path 08	23	Wire 07
11	Through Path 09	24	Wire 08
12	Wire 03	25	Through Path 17
13	Wire 04		

Connector J4: (Port 03)

Pin	Signal	Pin	Signal
1	Through Path 01	14	Through Path 10
2	Wire 01	15	Wire 05
3	Wire 02	16	Through Path 11
4	Through Path 02	17	Wire 06
5	Through Path 03	18	Through Path 12
6	Through Path 04	19	Through Path 13
7	Through Path 05	20	Through Path 14
8	Through Path 06	21	Through Path 15
9	Through Path 07	22	Through Path 16
10	Through Path 08	23	Wire 07
11	Through Path 09	24	Wire 08
12	Wire 03	25	Through Path 17
13	Wire 04		

Connector J5: (Port 04)

Pin	Signal	Pin	Signal
1	Through Path 01	14	Through Path 10
2	Wire 01	15	Wire 05
3	Wire 02	16	Through Path 11
4	Through Path 02	17	Wire 06
5	Through Path 03	18	Through Path 12
6	Through Path 04	19	Through Path 13
7	Through Path 05	20	Through Path 14
8	Through Path 06	21	Through Path 15
9	Through Path 07	22	Through Path 16
10	Through Path 08	23	Wire 07
11	Through Path 09	24	Wire 08
12	Wire 03	25	Through Path 17
13	Wire 04		

Signal Specifications

Switching elements . . . . . .Relay-based
Operating mode . . . . . .Normally open (no terminations)
Wires per relay port . . . . . .See configuration list
Signal type . . . . . .Analog or digital, bi-directional
Signal connector . . . . . .Female D-Sub Type (DB-25S)
Frequency range . . . . . .DC - 10MHz (min)
On resistance . . . . . .<500 mOhms
Contact rating . . . . . .1 AMP, 30VDC, 30W (.3A, 125VAC)
Switching speed . . . . . .<5mS (plus control time)

Universal Switching's policy is one of continuous development, and consequently the company reserves the right to vary from the descriptions and specifications shown in this publication.

General Specifications

Module size . . . . . .1 slot height
Control type . . . . . .G2 compatible
Sparing . . . . . .Hot-Swappable
Construction . . . . . .Shielded aluminum case
DC power . . . . . .-200, D200, -207 or -D207 configuration
Weight . . . . . .<1.5lbs
Operating temp . . . . . .0 to +70C
Non-operating temp . . . . .-20 to +85C
Humidity . . . . . .0 to 95% (NC @ +25C)
Contact life . . . . . .>100,000 operations (@1A)
MTBF (estimated) . . . . . .>120,000 hours
(per MIL-HDBK-217F, N1
ground benign @ +25C)

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