

RIO Bravo GPIO

The **RIO Bravo** provides 8 GPIOs and 4 additional relays on board. Additional GPIO can be added by connecting external GPI-1600 units (1 RU chassis) which provide 16 relays and 16 optos each.

The Relays are Solid State Form C Normally Open polarity insensitive contacts. They are rated for 100 milliamps max and have a nominal 25 ohm resistance. They will drive most applications directly but high current On Air lights will require a booster relay.

The GPI Inputs are Logic Inputs and utilize opto-isolators that are internally biased to +5 VDC. The user only needs to short the + contact to GND to activate the GPI (apply an external relay or switch between pins 7 & 8, the BRN pair). The LED on the connector will illuminate when the input has been energized. The inputs can be safely connected to higher voltages, up to +24 VDC, and will energize when pulled within 0.5 VDC of GND.

J9 GPIO 'n', n = 1 to 8

<u>Pin #</u>	<u>Function</u>	<u>EIA-568B Color Code</u>
1	Relay n A	WHT/ORG
2	Relay n B	ORG
3	GND	WHT/GRN
4	NC	BLU
5	NC	WHT/BLU
6	GND	GRN
7	Logic In n *	WHT/BRN
8	GND	BRN

* LED illuminates to indicate the Logic In has been energized by pulling low to Gnd.

The on-board relays are organized on two connectors: J8 Timer provides 3 relays and can be used for Timer control of any SAS Meter Pod Timer (or other use), and J8 On Air provides one relay to drive low current (<100mA) On Air lights or a booster relay for high current On Air lights. The pinouts are as follows:

J8 On Air

<u>Pin #</u>	<u>Function</u>	<u>EIA-568B Color Code</u>
1	Relay 12 A	WHT/ORG
2	Relay 12 B	ORG
3	NC	WHT/GRN
4	NC	BLU
5	NC	WHT/BLU
6	NC	GRN
7	NC	WHT/BRN
8	NC	BRN

J8 Timer

<u>Pin #</u>	<u>Function</u>	<u>EIA-568B Color Code</u>
1	Relay 9 A	WHT/ORG
2	Relay 9 B	ORG
3	Relay 10 A	WHT/GRN
4	NC	BLU
5	NC	WHT/BLU
6	Relay 10 B	GRN
7	Relay 11 A	WHT/BRN
8	Relay 11 B	BRN