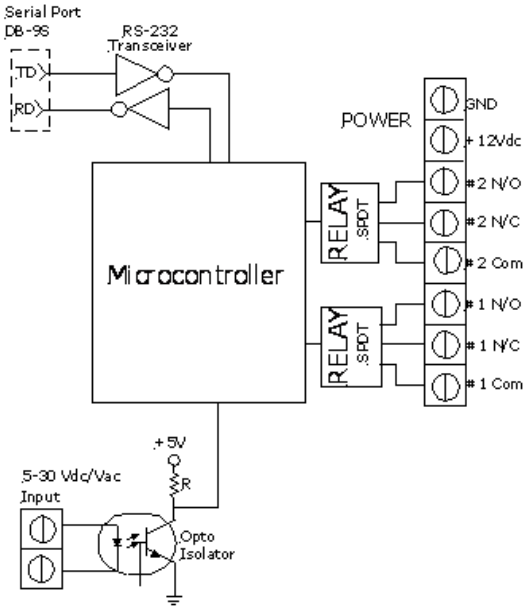
PRODUCT INFORMATION

Model: 232DRIO

RS-232 Digital Relay I/O



Features

- ✓ RS-232 Serial Communications
- ✓ CMOS/TTL Compatible Input and Outputs
- ✓ One 2500V Isolated Port
- ✓ Two Single Pole, Double Throw (SPDT) Relay Outputs
- ✓ LEDs Indicate Input and Relay Channel Status
- ✓ Screw Terminals for Easy Field Wiring

Functional Description

The 232DRIO provides a low-cost, easy to use solution for RS-232 serial port to discrete relay output applications. It offers one optically isolated input and two relay outputs. The General Purpose Control Module can be used to sense external ON/OFF conditions and to control a variety of devices. The 232DRIO includes a CD ROM with an instruction manual and demonstration programs written in QuickBASIC and C/C++.

Ordering Information

Model Number	**Description**
232DRIO	RS-232 Digital Relay I/O
Accessories	
232CAMR	DB25F to DB9M 6 inch adapter cord
232PS2	12VDC (100mA) Wall Transformer Power Supply
9PAMF10	10 ft - DB9 to DB9 Cable, Male to Female
9PAMF6	6 ft - DB9 to DB9 Cable, Male to Female

B&B ELECTRONICS

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Operation

- The Instruction Manual contained on the CD ROM has detailed operational information.
- Table One is the RS-232 DB9F Pin-out. Note: this device is wired as DCE.
- Table Two is the I/O Line Terminal layout.

Table 1
RS-232 DB9F Pin-out (DCE)

Pin	Signal	Direction
2	Receive Data (RD)	Output
3	Transmit Data (TD)	Input
5	Signal Ground	--------
9	Power	--------

Note: Pin 9 is NOT Required. Refer to Manual

Table 2
Terminal Block Layout

Blue	Function	Black	Function
Pin 1	Ground Input Power	Pin 1	Opto-Isolated Input
Pin 2	+12VDC Input Power	Pin 2	Opto- Isolated Input
Pin 3	#2 – Normally Closed	Note	Non Polarized
Pin 4	#2 – Normally Open		0 – 30 VAC / VDC
Pin 5	#2 – Common		
Pin 6	#1 – Normally Closed		
Pin 7	#1 – Normally Open		
Pin 8	#1 – Common		

Specifications

Non-Polarized Optically Isolated Input

Channels: 1

Indication Mode

Logic “0”: LED On, Input Voltage High
Logic “1”: LED Off, Input Voltage Low

Electrical Characteristics

Input Voltage Low: Less Than 1.5VAC/VDC
Input Voltage High: 5 – 30 VAC/VDC @ 1 – 30 mA
Isolation Voltage: 2500 VAC RMS
Leakage Current: 10 micro A (max)

Relay Outputs

Channels: 2 Electromechanical Relays

Indication Mode

Logic “0”: LED Off, Relays De-energized
Logic “1”: LED On, Relays Energized

Relay Ratings

Contact (standard): 10 A @ 120 VAC
8 A @ 30 VDC (resistive)
Max Switching Capacity: 1200VA / 240 W
Max Operating Voltage: 250VAC / 125 VDC
Max Carrying Current: 10A (AC), 8A (DC) – standard
Min Permissible Load: 100mA @ 5 VDC
Relay Form: Form C, SPDT
Output Terminals: Normally Open or Normally Closed
Operating Time: 10ms Max (mean 5.1 ms)
Mechanical Life: 10 million operations minimum
Load Dependent Life: 100 thousand operations minimum

Power Supply

Input Voltage: 9 to16 VDC
Input Current: 100 mA
Connection: Blue terminal block field wiring
or DB9F Pin 9 (see manual)

Communications

Standard: RS-232 (Unit is DCE)
Baud Rate: 9600
Format: 8 data bits, 1 stop bit, no parity
Connection: DB9F

Environment

Op Temperature: 32 to 158 F (0 to 70 C)
Op Humidity: 0 to 95% Non-condensing
Storage Temp: -4 to 158 F (-20 to 70 C)
Dimensions: 4.6 x 2.4 x 1.3 in (11.7 x 6.1 x 3.3 cm)
MTBF: 141777 hours
MTBF Calc Method: Parts Count Reliability Prediction

B&B electronics MANUFACTURING COMPANY

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