



BadgerWare, LLC

PO Box 292, Dayton, OH 45409

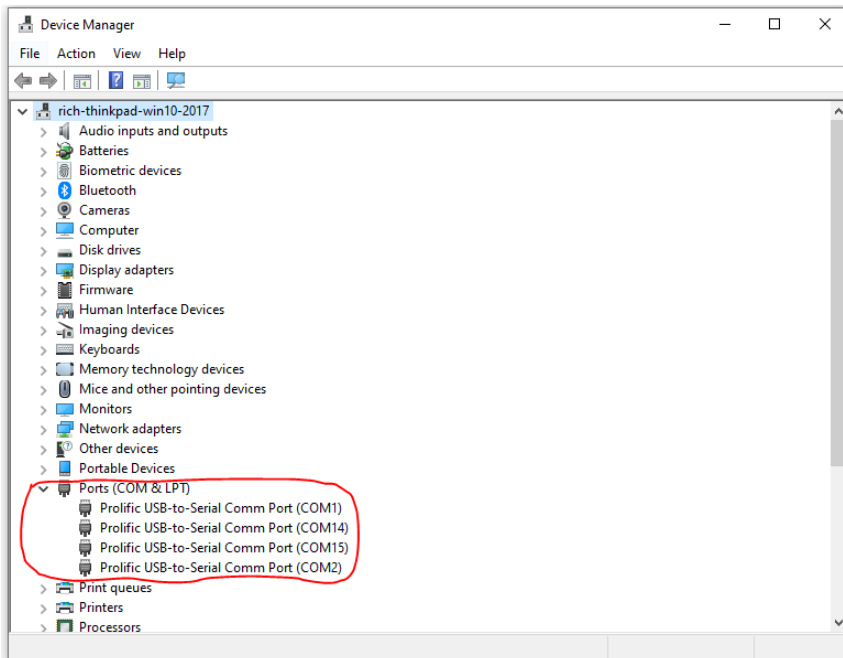
www.badgerware.net

www.usb-relay.com

IOM2 USB Relay Module Operating Instructions

Communications

Communications with the PC are via a USB 2.0 connection using the supplied 3ft USB 2.0 A Male to Micro USB Male cable. If the FTDI driver has already been installed, when the connection is made (with or without power to the module), Windows will detect the device and automatically create a virtual COM port. Within Windows Device Manager, the list of currently installed COM ports can be displayed:



After connection and successful creation of the new COM port, the list will be updated:



Make a note of the COM port number. It will need to be selected within the application software used to control the module.

If Windows can't find the FTDI driver, it will need to be installed. The Windows 7 to Windows 11 FTDI Driver Installer (CDM212364_Setup.exe) can be downloaded at www.badgerware.net/FTDI or found at <https://ftdichip.com/drivers/>. Run the program and follow the instructions for installation. Upon successful completion, a new COM port will appear within Windows Device Manager as described above.

Communications are fixed at 9600 baud, no parity, 8 data bits, and 1 stop bit.

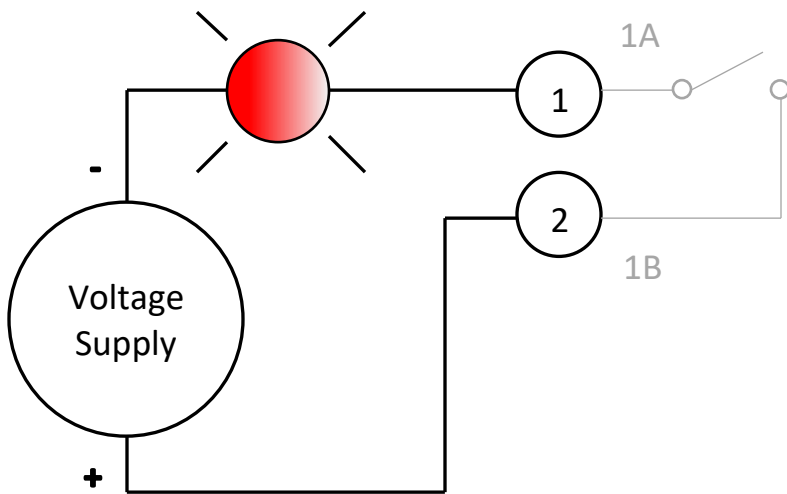
Relay Outputs

Up to 8 dry contact relays (SPST – Normally Open) for alarm outputs are provided. The relays can switch up to 30 volts DC or 250 volts AC at 5 amps.

Connect alarm indicators (e.g. light stack, horn, paint marker, etc.) to the screw terminals as labeled on the underside of the PC board.

	Description
Pin 1	Relay 1A
Pin 2	Relay 1B
Pin 3	Relay 2A
Pin 4	Relay 2B
Pin 5	Relay 3A
Pin 6	Relay 3B
Pin 7	Relay 4A
Pin 8	Relay 4B
Pin 9	Relay 5A
Pin 10	Relay 5B
Pin 11	Relay 6A
Pin 12	Relay 6B
Pin 13	Relay 7A
Pin 14	Relay 7B
Pin 15	Relay 8A
Pin 16	Relay 8B

Example:



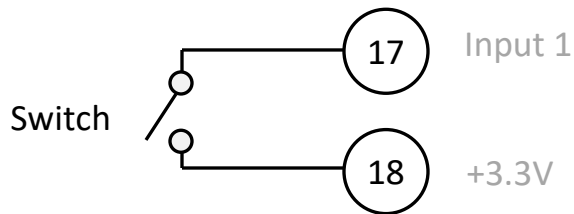
Notes: When the relay closes, it makes the circuit supplying the voltage to the light. Be sure to select a voltage supply appropriate for the light stack.

Digital Inputs

8 digital inputs are provided. Inputs are internally pulled low. To trigger an input, switch it high via an external switch between the input pin and any +3.3V pin as labeled on the underside of the PC board.

	Description
Pin 17	Input 1
Pin 18	+3.3V
Pin 19	Input 2
Pin 20	+3.3V
Pin 21	Input 3
Pin 22	+3.3V
Pin 23	Input 4
Pin 24	+3.3V
Pin 25	Input 5
Pin 26	+3.3V
Pin 27	Input 6
Pin 28	+3.3V
Pin 29	Input 7
Pin 30	+3.3V
Pin 31	Input 8
Pin 32	Ground

Example:



Notes: The inputs can accept up to +5V from an external source such as a PLC.

Power

Power is provided via the supplied 5VDC – 6W wall adapter.

Mounting

The module may be permanently mounted via the mounting holes provided on the aluminum base plate or affix the supplied feet to the bottom of the base plate for portable benchtop use.