

24V DIO APPLICATION ADAPTOR FOR EMANT300 or EMANT380

The 24V DIO Application Adaptor allows the **EMANT300** USB Data Acquisition Module or the **EMANT380** Bluetooth Data Acquisition Module to connect to Digital Signals up to 24V.

It allows for quick connection to industrial digital signals which often are greater than 5V.

Features

- 2 isolated digital inputs (30V max)
- 1 isolated counter input (30V max)
- 6 digital outputs (0.5A 30V max, no isolation)
- 1 PWM output (0.5A 30V max, no isolation)

Note: Due to the specification of the EMANT3X0, only either the Counter or the PWM is available at any one time.



Input Characteristics

Number of channels: 3 (2 digital inputs, 1 counter)

Digital logic levels

OFF state	ON state
Input voltage: $\leq 3\text{ V}$	Input voltage: 4.5 to 24 V
Input current: $\leq 150\ \mu\text{A}$	Input current: $\geq 3\text{ mA}$

Input delay time: 1ms

Absolute Maximum

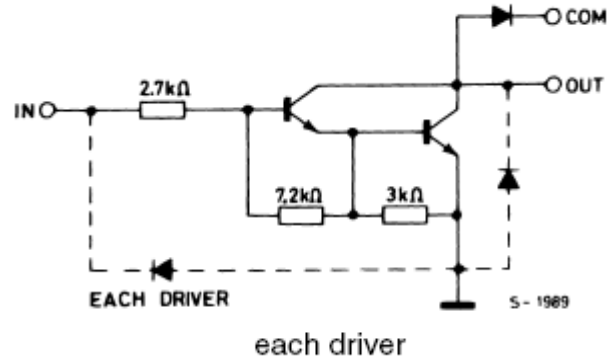
Input voltage: 30 V max

Reverse biased voltage: -6 V max

Input current: 9 mA max, internally limited

Output Characteristics

Number of channels: 7 (6 digital outputs, 1 PWM)
Output type: Sinking
Supply voltage range: 5 to 30 V
Output Saturation Voltage: 2V @ 0.2A*
Continuous output current: 0.5 A max per channel
Clamp Diode Reverse Voltage: 50V
Clamp Diode Forward Current: 0.35A
Output delay time: 100 μ s



Absolute Maximum

Voltage: 30 V max
Reversed voltage: None
Output delay time (full load): 100 μ s max

*Heat sinking may be required at the ULN2003 Darlington Drivers if power dissipated exceeds ULN2003 specifications. See ULN2003 specifications..

EMANT300 USB DAQ

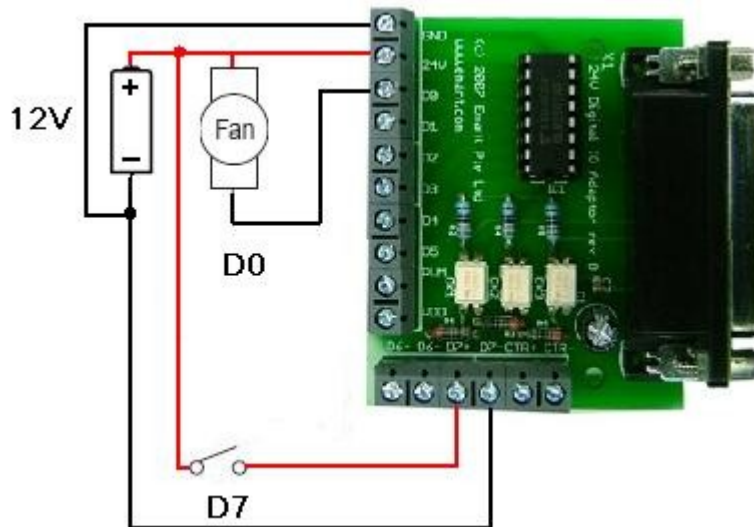


Fig 1: Typical EMANT300 USB DAQ Connection

EMANT300 USB DAQ to Stepper Motor

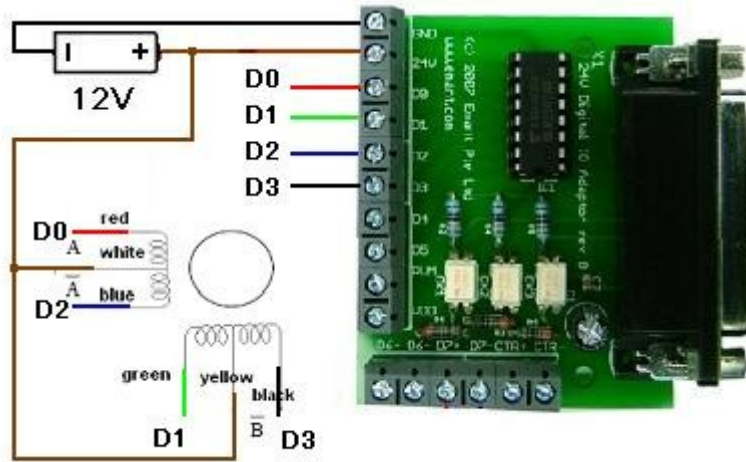


Fig 2: Connecting the EMANT300 USB DAQ to a four-coil unipolar stepper motor

EMANT380 Bluetooth DAQ

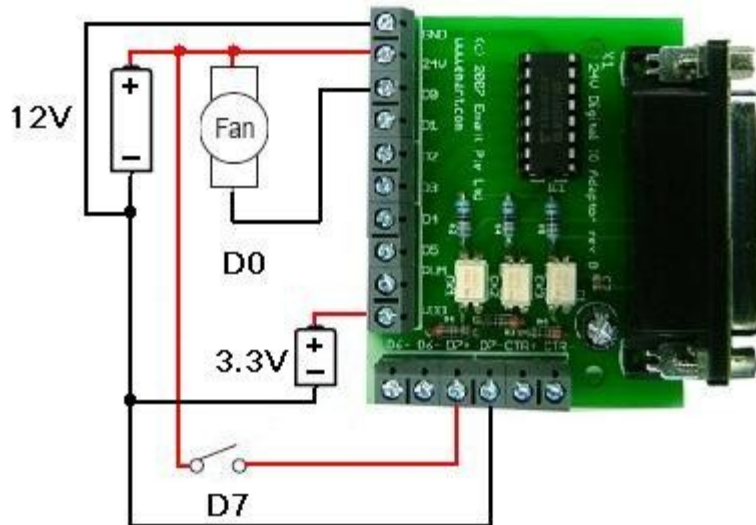


Fig 3: Typical EMANT380 Bluetooth DAQ Connection. Requires 3.3V supply.
You may use the 3.3V regulator if 5V supply is available.

Schematic

