IJ-8 Rotary encoder decoder

The IJ-8 module provides an extremely easy means of interfacing with a mechanical rotary encoder. The on-board microcontroller handles all decoding/debouncing of both the quadrature and switch signals from the encoder and provides simple logic-level step, direction and switch outputs.

It uses a high-quality Bourns encoder (Bourns part number PEC11-4215F-S0024) to ensure reliable operation and long life. The shaft has 24 detents per revolution.

Operation is from a 5V supply. The connections are all on a 0.1" pitch so standard pin headers can be used. Two additional holes (MOUNT1/2) are provided for extra rigidity when mounting the module directly on a PCB - these are connected to 0V.

RoHS Compliant

Shaft detent

Direction (DI)

Switch (SW)

Step (ST)

Clockwise

100µs 1ms

Anticlockwise



Switch pressed

30ms

Timing waveforms

Each time the shaft passes a detent position, the direction output (DI) is updated and a 1ms long pulse is produced on the step output (ST).

The switch output (SW) is debounced with a delay time of 30ms.

All outputs are 5V logic levels.

Pinout/dimensions

+V	+5V supply
ST	Step pulse output
DI	Direction output
	(high=CW low=ACW)
SW	Switch output
0V	0V supply





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30ms

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