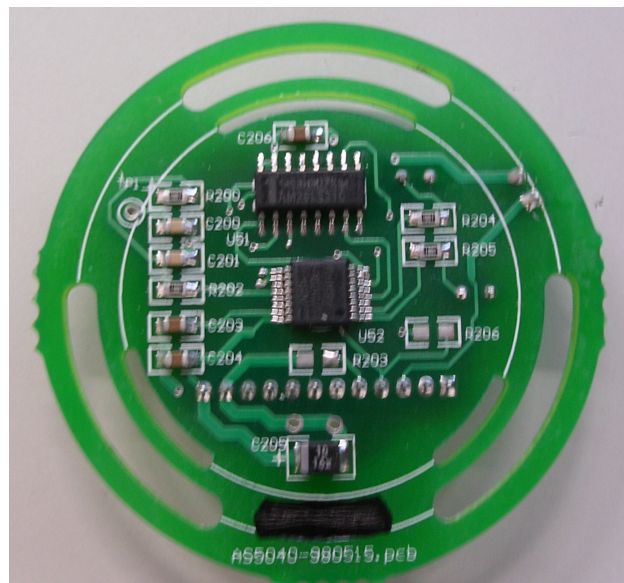


PL-1024R Datasheet
Issue 4, Oct 23, 2014

Magnetic encoder module and Magnetic actuator

PL-1024R Magnetic encoder module



Magnetic Actuator

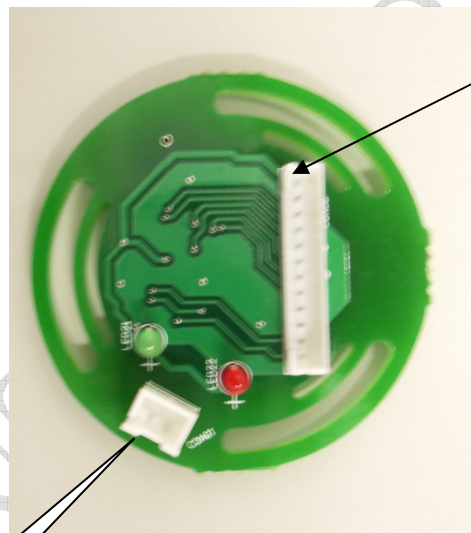


1. General Description

The PL-1024R encoder module is designed for easy installation with a self aligning metal mounting flange. The low cost module can be provided with an integrated connector. The encoder module consists of a magnetic actuator and a separate sensor board. An internal voltage regulator allows the PL-1024R to operate at either 3.3 V or 5 V supplies.

The PL-1024R module can be used in a wide range of applications including motor control and industrial automation.

2. Pin Configuration



Open

Pin12-5V
Pin11-0V
Pin10-B+
Pin 9-B-
Pin 8-A+
Pin 7-A-
Pin 6-Do
Pin 5-CLK
Pin 4-CSN
Pin 3-NC
Pin 2-Z-
Pin 1-Z+

3. Synchronous Serial Interface (SSI)

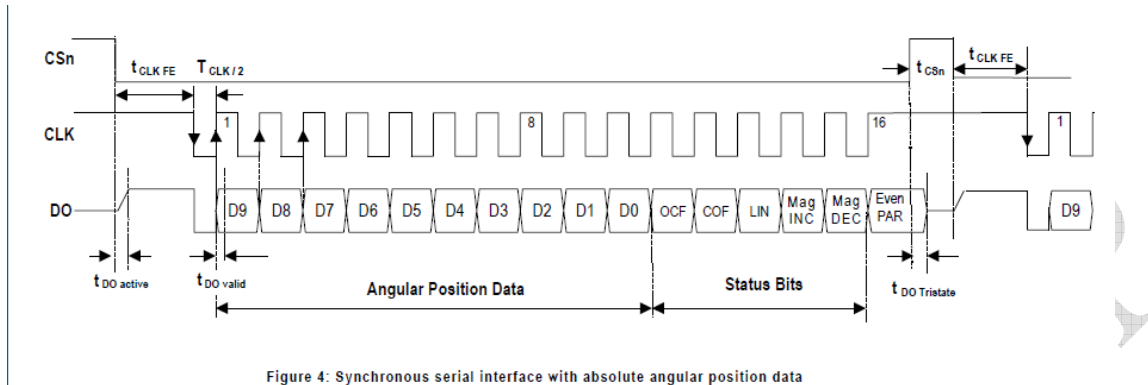


Figure 4: Synchronous serial interface with absolute angular position data

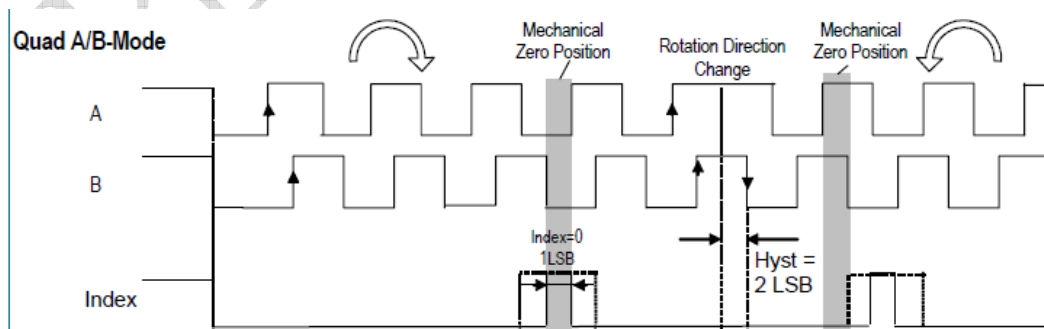
4. Timing Characteristics

Synchronous Serial Interface (SSI)

(operating conditions: $T_{amb} = -40$ to $+125^{\circ}C$, $V_{DD5V} = 3.0-3.6V$ (3V operation) $V_{DD5V} = 4.5-5.5V$ (5V operation) unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit	Note
Data output activated (logic high)	$t_{DO\ active}$			100	ns	Time between falling edge of CSn and data output activated
First data shifted to output register	$t_{CLK\ FE}$	500			ns	Time between falling edge of CSn and first falling edge of CLK
Start of data output	$T_{CLK/2}$	500			ns	Rising edge of CLK shifts out one bit at a time
Data output valid	$t_{DO\ valid}$			375	ns	Time between rising edge of CLK and data output valid
Data output tristate	$t_{DO\ tristate}$			100	ns	After the last bit DO changes back to "tristate"
Pulse width of CSn	t_{CSn}	500			ns	CSn = high; To initiate read-out of next angular position
Read-out frequency	f_{CLK}	>0		1	MHz	Clock frequency to read out serial data

5. Quadrature A/B Output



6. Package Drawings & Magnetic Actuator

