

# M2000 Parallel Input Card

E124-216

PSC Expansion Eurocard

24 Bit Parallel Input

PLC Compatible

## Features:

- 2 x 12 bit Opto isolated input ports or:
- 1 x (12+12) bit Opto-isolated input port
- Connection via front panel D-Types
- E127 Motherboard compatible
- Optional analog voltage reference and conditioning for 2off potentiometers
- PSC "Function Block" driven

## Description

The E124-216 Parallel Input Card is a PSC expansion Eurocard. The card's DIN41612 connector is pin compatible with the Moog E127 format and communicates via the PSC's SI1 or SI2 'Serial Port' real-time function blocks. The 4 wire SSI serial communication standard is utilised, allowing update of data in the PSC at the user defined sample rate. The 24 bits of parallel data may be read either as 2x12 bit signals or combined to form 1x16 bit signal which may be used for closed loop control or utilised in the PSC's Motion Control Language programs.

The E124-216 module also supports 2 voltage reference and 2 buffer amplifiers which may be used to power and condition potentiometer type position transducers for input to the PSC 12bit analog inputs.



## Applications

- PLC Interface
- Parallel input closed loop demand or feedback values
- Absolute encoder input
- Input from limit switches, control panel switches etc.
- Potentiometer feedback

## Note:

- i) The E124-216 module utilises one of the PSC RS-422 serial ports for data entry, 2 of which are available per PSC (Si1 and Si2).
- ii) The E124-216 will operate in any E127 series rack system or the T127-401 3 slot rack.

## Electrical Specification

### Inputs

Opto-isolated 24V nominal with independent common ground for each 12 bit port. Reverse polarity protected. Input load - 5KΩ.

Consult Moog Controls Limited for other input voltage levels.

### Analog Voltage Ref:

±10 Volts reference

Maximum current - 30mA

### Analog Buffer:

2 x unity gain high impedance voltage buffers.

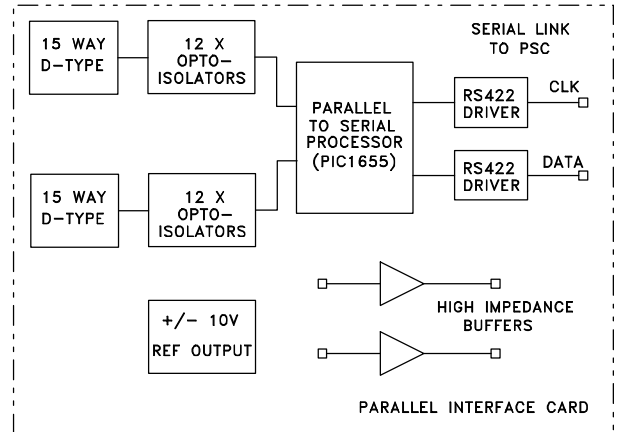
Signal range - ±10V

Input impedance - >2MΩ

### Power Requirements

±5V at 50mA

±15V at 150mA Max



**Circuit Function**

## Software Function

**RPos0** 12 bit number from input port A

**RPos1** 12 bit number from input port B

**Pos** 12+12 bit combined value

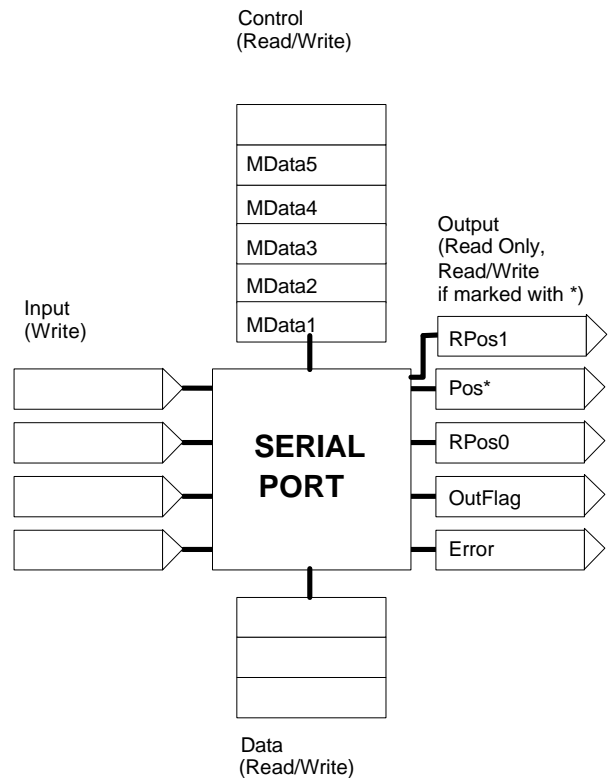
**Outflag** Set to 1 if a read error occurs

**MData1,2** Clock Rate

**MData3** Number of bits to be received

**MData4** 0 - Binary input  
1 - Grey code input  
2 - BCD input

**MData5** 0 - PIC Mode



MOOG Controls Limited, Ashchurch, Tewkesbury, Gloucestershire, GL20 8NA, UK.  
Tel: (01684) 296 600, Fax: (01684) 296 760

Melbourne Australia, Vienna Austria, Sao Paulo Brazil, Birkerod Denmark, Tewkesbury England, Espoo Finland, Rungis France, Boblingen Germany, Kwai Chung Hong Kong, Bangalore India, Ringaskiddy Ireland, Malnate (VA) Italy, Hiratsuka Japan, Kwangju Japan, Baguio Philippines, Singapore Singapore, Orio Spain, Gothenburg Sweden, East Aurora (NY) USA.

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