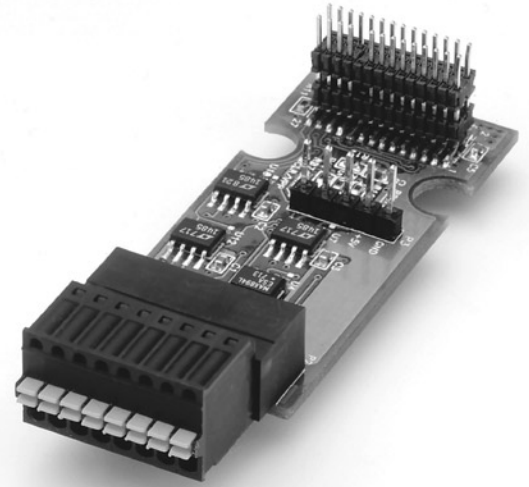


# MICRO LYNX™ EXPANSION MODULE

## HIGH SPEED DIFFERENTIAL I/O

### FEATURES

- Low Cost
- 3 High Speed 0 to +5 VDC Differential I/O Channels
- 3 Clock Types – Step/Direction, Up/Down, Quadrature
- Programmable Digital Filtering for Inputs
- 150 mA (Current Limited) +5 VDC Output
- Adds the Capability for:
  - Closed Loop Control
  - Electronic Gearing
  - Additional Axis for Sequential Motion Control
- Plugs Directly into MicroLYNX Controller
- Removable Terminal Strip or Pin Header



### DESCRIPTION

The Differential Digital I/O Module adds 3 high speed 0 to +5 VDC differential I/O channels to the MicroLYNX motion control system. The channels can be used differentially or single ended as inputs or outputs.

The Differential Module can be used for encoder feedback, electronic gearing, or to control an additional axis sequentially.

The I/O channels can be individually programmed by the user to be one of three clock types: Step/Direction (output only), Up/Down (input or output), or Quadrature (input or output).

When used as inputs, these I/O channels have seven programmable digital filter settings ranging from 39.1kHz to 5.0 MHz.

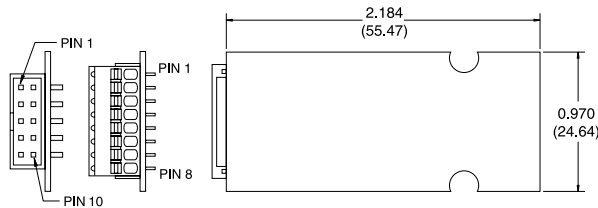
### PIN ASSIGNMENTS

PIN	CONNECTOR OPTION	
	TERMINAL BLOCK	PIN HEADER
1	CHANNEL C -	NO CONNECT
2	GROUND	+5 VDC
3	+5 VDC	GROUND
4	CHANNEL B -	CHANNEL B -
5	CHANNEL A +	CHANNEL A -
6	CHANNEL B +	CHANNEL A +
7	CHANNEL C +	CHANNEL B -
8	CHANNEL A -	CHANNEL B +
9		CHANNEL C -
10		CHANNEL C +

### ELECTRICAL SPECIFICATIONS

Differential Input Threshold .....	-0.2 to +0.2 volts
Input Hysteresis .....	60 millivolts typical
Input Common Mode Range.....	-6 to +6 volts
Open Circuit Input Voltage	
Positive Input.....	4.3 volts
Negative Input.....	1.4 volts
Output Voltage (each output).....	No Load/6 milliamp load
Logic "0" .....	0.5 volts/0.8 volts
Logic "1" .....	4.5 volts/4.2 volts
Short Circuit Current .....	250 mA max
Filter Cutoff Frequencies.....	5.00, 2.50, 1.25 MHz
	625, 313, 156, 78.1, 39.1 kHz

### INTERFACE INFORMATION



#### NOTE:

Terminal Block Mating Connector **Supplied.**

Pin Header Mating Connector **Not Supplied.**

Order Information at [www.imshome.com/quick.html](http://www.imshome.com/quick.html)

### ENVIRONMENTAL

Storage Temperature .....	-20 to +70° C
Operating Temperature.....	0 to +50° C
Humidity.....	0 to 90% non-condensing

### ORDER INFORMATION

PART NUMBER	TERMINAL BLOCK	PIN HEADER
		<b><i>MX-DD100-000</i></b>

Standard product shown in bold italics. Lead times may apply to other versions.