

Specifications

Parameter	Parameter Type	Value
Power	Input	24 VDC, 2 Amp, User Supplied Additional power may be required for I/O use See Installation Guide for Details
Environmental	Operating Temperature	32° to 122°F (0° to 50°C)
	Storage Temperature	-22° to 185°F (-30° to 85°C)
	Humidity	0% to 95% non-condensing
Performance	Command	+/- 10V or Step & Direction Configurable per axis
	Servo Update	As fast as 62.5 μs/axis
	Encoder	Two phase quadrature detect incremental encoders with differential (recommended) or single ended outputs (+5 VDC TTL compatible) Max Frequency = 12 MHz post quadrature
	Stepping Accuracy	+/-0 steps from preset total
	Position Range	+/-2,147,483,648 counts
	Velocity Range	1 to 2,048,000 counts/sec (step & direction output) 1 to 12,000,000 counts/sec (+/- 10V output)
Inputs	End-of-Travel & Home Limits per axis	Factory default is 24 VDC sourcing Jumper LIM-P to GND for sinking 0-24 VDC range through VIN _{ref} 1/3 1/3 1/3 voltage switching threshold Configurable as programmable inputs if not needed as limits
	Onboard	Fast trigger inputs 9 on 6K2 & 6K4, 17 on 6K6 & 6K8 Factory default is 24 VDC sourcing Jumper TRIG-P to GND for sinking 0-24 VDC range through VIN _{ref} 1/3 1/3 1/3 voltage switching threshold
	Expansion (optional)	Up to 256 additional digital inputs (2 ms update rate) Up to 64 additional 12-bit analog inputs (+/- 10VDC) 12-24 VDC user supplied through EVM32 module 1/3 1/3 1/3 voltage switching threshold on digital inputs Up to 100 ft between EVM32 modules LEDs provided on digital inputs for visual reference
Outputs	Onboard	5-24 VDC user supplied 300 mA maximum current sink 4 on 6K2 & 6K4, 8 on 6K6 & 6K8
	Expansion (optional)	Up to 256 additional digital outputs (300 mA maximum current sink)* Up to 64 additional 10-bit analog outputs (+/- 10VDC) 12-24 VDC user supplied through EVM32 module Up to 100 ft between EVM32 modules Up to 256 relay outputs (0.5 A) LEDs provided on digital and relay outputs for visual reference
Communications	Ethernet	10Base-T (10Mbps Twisted Pair) TCP/IP and UDP Protocol
	Serial	RS-232, RS-485 2-wire or 4-wire Up to 19200 baud, Up to 99 units in daisy-chain or multi-drop

* Maximum number of outputs and maximum current sink are heat dependent. See product documentation for duty cycle considerations.



Front Surface Connectors

Encoder • 9-pin D connector, female

Pin No.	Signal
1	+5VDC
2	A+
3	A-
4	B+
5	B-
6	Z+
7	Z-
8	Single Ended
9	ISO GND

Drive • 15-pin D connector, female

Pin No.	Signal
1	Step+ (stepper)
2	Direction+ (stepper)
3	Command+ (servo)
4	Stall (stepper)
5	Drive Fault (both)
6	Command- (servo)
7	Shutdown (NO) (servo)
8	Shutdown (NC) (servo)
9	Step- (stepper)
10	Direction- (stepper)
11	Shutdown+ (stepper)
12	Shutdown- (stepper)
13	ISO GND (both)
14	Shtdn Common (servo)
15	Analog Ground (servo)

Limits/Home • 25-pin D connector, female

Pin No.	Signal
1	Home4
3	Neg4
5	Pos4
7	Home3
9	Neg3
11	Pos3
13	Home2
15	Neg2
17	Pos2
19	Home1
21	Neg1
23	Pos1
25	Reserved
Even	ISO GND

Triggers/Outputs • 25-pin D connector, female

Pin No.	Signal
1	Output4
3	Output3
5	Output2
7	Output1
9	Trigger8
11	Trigger7
13	Trigger6
15	Trigger5
17	Trigger4
19	Trigger3
21	Trigger2
23	Trigger1
25	Reserved
Even	ISO GND

Top Surface Connectors

Power Input • 12-pin Screw Terminal

Pin No.	Signal
1	SHIELD
2	ISO GND
3	ENABLE
4	OUT DIODE
5	MASTER TRIG
6	ISO GND
7	CNTRL-P
8	LIM-P
9	TRIG-P
10	VINref
11	24 VDC RTN
12	+ 24 VDC PWR

Master Encoder Input • 9-pin D connector, female

Pin No.	Signal
1	+5VDC
2	A+
3	A-
4	B+
5	B-
6	Z+
7	Z-
8	ISO GND
9	ISO GND

I/O Expansion (15-pin D connector, male)

Connection to the expansion I/O modules. I/O modules sold separately. Up to 256 digital inputs, 256 digital outputs, 64 analog inputs, 64 analog outputs, and 256 relay outputs.

Reserved / Fieldbus Out (9-Pin D connector female)

No function on non-fieldbus product
 Data out port on fieldbus options

RS-232/485 (9-pin connector, male)

Configurable for RS-232 or RS-485 at 9600 or 19200 baud

RS-232/Fieldbus In (9-pin D connector male)

RS-232 port at 9600 or 19200 baud
 Data in port on fieldbus options

Ethernet (RJ45 Connector)

10Base-T Ethernet connection with TCP/IP and UDP protocol

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