

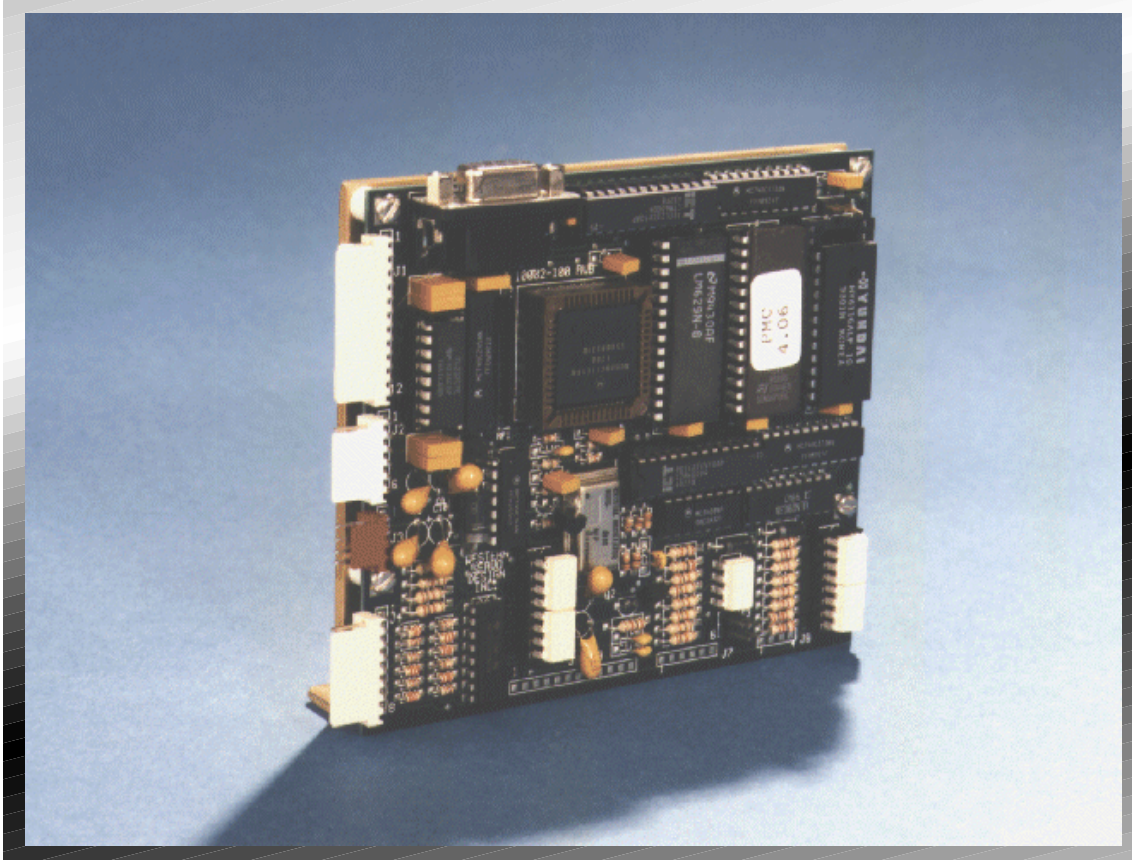
Product:
Motion Controller

Used For:
Programmable Motor Control

Mounting:
Stand Alone or Panel Mount

Power:
N/A

#of Axes:
One



PMC-S1

Single Axis Motion Controller

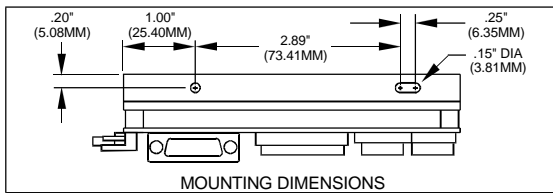
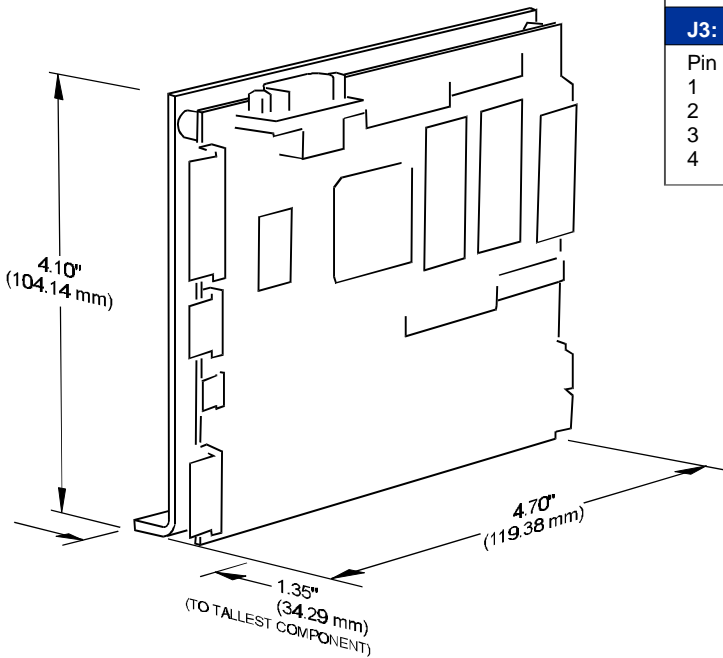
The PMC-S1 is a single-axis, point to point servo positioner which, when combined with a power supply and servo amplifier, forms a complete motion control system. Communicating with a host via RS-232, the PMC-S1 has on board EEPROM which can store servo parameters and motion programs. The servo parameters are used to set up the system during power up. The PMC-S1 includes an optically isolated Amplifier Enable output, Amplifier Fault and Travel Limit inputs, two General Purpose Inputs, and five General Purpose Outputs.

PMC-S1 MOTION COMMAND SET:

C	Request value of analog signal (motor Current)	INx	Read INput Bit x
Dt	Dwell for t x 10 milliseconds	J/	Servo ON (close the loop)
E	Initiate Execution mode	J+	Toggle positive Jog on/off
ENDW	Concludes WHILE loop	J-	Toggle negative Jog on/off
<ESC>	Terminate Execution mode	K	Kill servo
FORx	Loop for x + 1 iterations	L	List motion program
H	Find Home	NEXT	Concludes FOR loop
I0x	Kill servo if error > x	Onx	Set Output Bit n to value of x
I1x	Warn host if error > x	P	Position request
I2x	Set PID Proportional gain	Q	Quit last motion instruction & servo here
I3x	Set PID Integral gain	R	Request eRror byte
I4x	Set PID Derivative gain	s	save program and I variables
I5x	Set PID Integrator limit	S	Request current Speed
I6x	Set point to point acceleration	T	Request sTatus byte
I7x	Set point to point speed	Vx	Set point to point Velocity
I8x	Select absolute (x=0) or relative (x=1)	WHILE INn=x	Loop conditional on INput n
I9x	Set XMC configuration register	Xx	Move aXis absolute/relative to x
IAx	Set Jog Acceleration	Z	Set current position to Zero
IHx	set Homing speed	*	Toggle EditMode
IJx	Set Jog speed	\$	Re\$et
ISx	Set Sample period		
I%	Request value of I variable		

SPECIFICATIONS

Standard Model: PMC-S1	
ELECTRICAL:	
Power Requirement	+5VDC @ 750mA, ±5%
Optical Isolation Power	+12VDC
Amp Enable Output	5 to 24VDC @ 100mA max
Amp Fault Input	+12VDC
General Input (2 lines)	+5 to 24VDC @ 100mA max
General Output (3)	0 to 5VDC @ 2mA max
Command Output	±10V
RS-232 Line Voltage	±12V
PERFORMANCE:	
Servo Loop Time	250µSeconds
Position Range	32 bit encoder count
Accuracy	±1 encoder count
Position Encoder	A/B Quadrature with C (Index)
PHYSICAL:	
Weight	10 ounces (284 grams)



PINOUT

J1: SIGNALS & BIAS POWER		J4: ENCODER CONNECTION	
Pin	Function	Pin	Function
1	Command Out	1	Encoder Power
2	Command Return	2	Channel C In
3	Amp Enable Out	3	Channel C/ In
4	Amp Fault In	4	Channel B In
5	Analog Ground	5	Channel B/ In
6	Output 1	6	Channel A In
7	Output 1 Return	7	Channel A/ In
8	Output 2	8	Encoder Return
9	Output 2 Return		
10	+12 to +15VDC In	J5: RS-232	
11	Analog Ground	Pin	Function
12	-12 to -15 VDC In	1	Connected to 4, 6 & 8
		2	Transmit
		3	Receive
		4	Connected to 1, 6 & 8
		5	Digital Ground
		6	Connected to 1, 4 & 8
		7	No Connection
		8	Connected to 1, 4 & 6
		9	No Connection
		J6: AMPLIFIER PIGGYBACK	
		Pin	Function
		1	No Connection
		2	Amplifier Fault
		3	Amp Enable
		4	Analog Ground
		5	No Connection
		6	+ Analog In (differential)
		7	- Analog In (differential)
		8	Command to Amp
		9	Analog Ground
		10	+12 to +15VDC
		11	Analog Ground
		12	-12 to -15 VDC
		J7: I/O (Not Opto Isolated)	
		Pin	Function
		1	External Event In
		2	+ Analog In (differential)
		3	- Analog In (differential)
		4	General Output 5
		5	General Output 4
		6	General Output 3
		J8: OUTPUTS (Opto Isolated)	
		Pin	Function
		1	General Output 2
		2	Output 2 Return
		3	Output 1 Return
		4	General Output 1

Consult User's Manual for jumper settings.

Ordering Information:

Product	Order Number
PMC-S1 Single Axis Motion Controller	WS-013-0002
ACC-S1A Executables Diskette	WS-013-0006

Represented By: