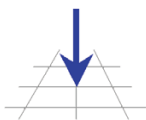
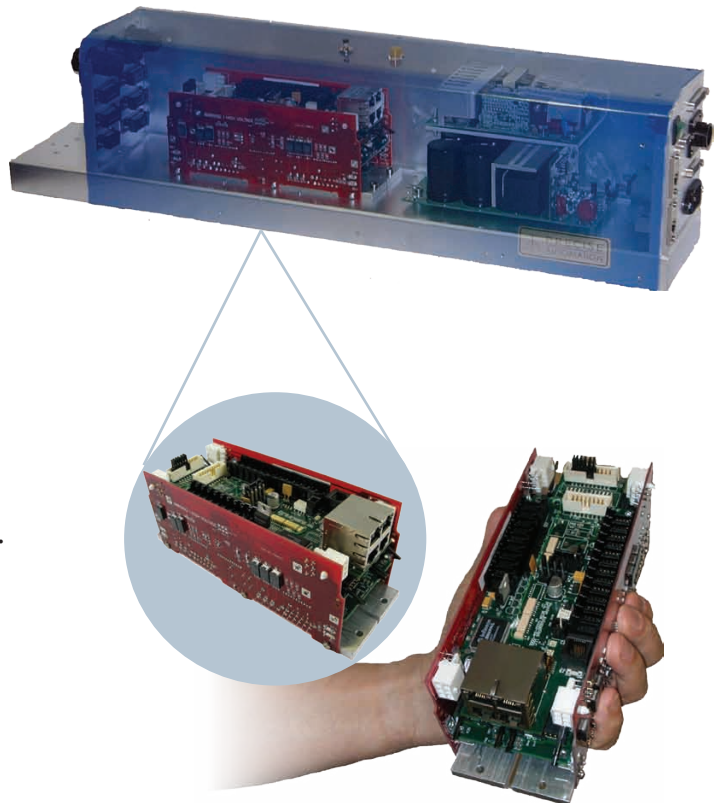


# GUIDANCE SYSTEM

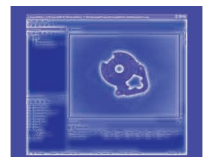
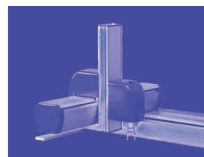
## *Complete 4-axis vision-guided motion control system in a compact enclosure*

The Guidance System is a complete motion control system for customers who desire an out of the box, ready to use solution. It delivers all of the outstanding features of Precise Automation's motion controllers integrated to motor and logic power supplies, fans and filters and easy-to-use standard connectors. The enclosure is compact to permit mounting on a linear axis, under a workstation or other location where space is a premium. It can be attached very close to the mechanism, thus eliminating extra control cabinets and reducing cable lengths. For more complex systems, Guidance Systems and Controllers can be networked together to coordinate up to 32 axes.

Combined with Precise's powerful programming language, vision software and multi-axis kinematics library, Guidance Systems are ideal for a wide range of industries and applications. A Guidance System enables you to deliver a better product to your customers by improving your robot's flexibility, performance and space requirements, while simultaneously reducing your costs.



**PRECISE**  
**AUTOMATION**



<b>General Specifications</b>	<b>Range &amp; Features</b>
<b>Software</b>	
Motion control	Extensive robotic and low-level motion control available: Continuous path following, s-curve profiling, straight-line and circular motions, torque and velocity control, control of 4 axes extensible by networking additional Precise Controllers, optional conveyor belt tracing, optional kinematic models for various robot geometries.
Operator interface	Web based operator interface supports local or remote control via browser connected to embedded web server.
Programming interface	Three methods available: DIO MotionBlocks (PLC), embedded Guidance Programming Language (standalone), PC controlled over Ethernet using TCP/IP
Machine vision (optional)	Provides controller with a complete set of image-processing, measurement, inspection and finder tools. A powerful, patented Object Locator finds parts in any orientation and at different scales within milliseconds.
<b>Motion Control</b>	
Motor Drives	Up to four integrated motor drives: 10A option: 10A peak per channel, 5.5A RMS, 3.5A stall per channel. 20A option: 20A peak per channel, 9.5A RMS, 6.5A stall per channel. Bus voltage: 320 VDC Total continuous power for all 4 drives: 500 watts RMS. Can power most robot systems whose motors are rated at total of 2KW
Position Sensor Interface	Four differential digital encoder interfaces and four configurable single-ended digital encoder interfaces. Support for selected absolute encoders (requires "enhanced" controller option). Support for analog incremental encoders with interpolation for increased resolution (requires "enhanced" controller option).
Control signals	Configurable limit stop, home, hall effect and brake signals.
<b>Communication Interfaces</b>	
General communications	RS-232 port with hardware flow control. Remote front panel interface with second RS-232 port (no hardware flow control), compliant with IEC Category 3 safety standards. Two 10/100 Mbps Ethernet ports.
Digital input channels	12 general purpose optically isolated inputs, configurable in groups of four as sinking or sourcing. 5 VDC to 24 VDC for logic high if sinking, 24 VDC supplied for logic high if sourcing. Additional remote I/O available via Precise RIO modules or 3 <sup>rd</sup> party MODBUS/TCP devices.
Digital output channels	8 optically isolated outputs, individually configurable as sinking or sourcing. 24 VDC maximum pull up if sinking. 24 VDC supplied if sourcing. 100 mA maximum per channel for channels 2-7, 500 mA maximum for channel 1. Additional remote I/O available via Precise RIO modules or 3 <sup>rd</sup> party MODBUS/TCP devices.
Analog I/O Channels	2 analog +/- 10 VDC 12-bit inputs included.
<b>Input AC</b>	
Input Voltage	Dual range: 90 to 132 VAC and 180 to 264 VAC auto selecting
Frequency	Frequency: 50-60 Hz
<b>Environment</b>	
Ambient temperature	5 degrees C to 40 degrees C
Storage/shipment temperature	-25 degrees C to +55 degrees C
Humidity range	5 to 90%, non-condensing
Altitude	Up to 3000 m
<b>Dimensions</b>	700 mm (L) x 112 mm (W) x 150 mm (H)



*automate with ease*