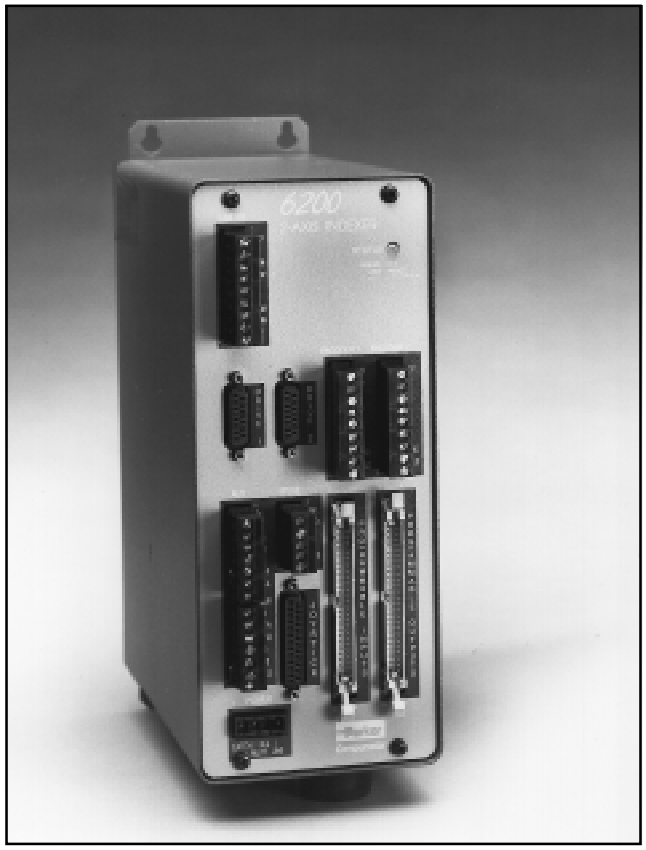
6200 two-axis indexer

Parker's 6200 motion controller is a stand-alone indexer for standard industrial step and direction motor drives. The 6200 can synchronize two axes of motion. Incremental encoder feedback on both axes enables the indexer to detect stalls, verify position, and correct for positioning errors generated by inaccurate mechanical transmissions.

Like all of Parker''s 6000 Series controllers, the 6200 uses the 6000 Series command language—a powerful command language that is flexible enough to implement complex motion control applications, and simple enough for the novice programmer.

Included with every 6200 is Motion Architect, an intuitive Microsoft® Windows™-based programming tool that includes a Program Editor, a Terminal Emulator, and On-line Help utilities, plus three innovative application development aids:

- A System Configurator that automatically generates fully documented code for application-setup parameters
- A test panel to create custom operator test panels to run programs and check the activity of I/O, motion, system status, etc.
- An On-line Command Reference that provides interactive access to the contents of the 6000 Series Software Reference Guide.



6200 features

Motion

- 1 or 2 axes of step and direction control with encoder feedback
- 1.6 MHz step output frequency

I/O

- All inputs and outputs are optically isolated
- Home limit, positive and negative end-of-travel limits for both axes
- 24 programmable inputs, 24 programmable outputs
- 2 interrupt-driven inputs for encoder capture and registration
- 2 auxiliary screw terminal outputs
- 3 analogue inputs that can be used for joystick or feed-rate override control
- Encoder channels can be configured as hardware up/down counters

Language

- Linear & circular interpolation
- Position-based following
- Variable storage, conditional branching, and maths capability
- Scaling of distance, velocity and acceleration parameters
- Capability to interrupt program on error conditions
- Program debug tools—Trace mode, break points, and simulation of I/O
- Programmable timer
- 40000 bytes of nonvolatile memory for program storage (expandable to 150,000 bytes, 6200-M)

Software Provided

- Motion Architect, Microsoft Windows-based application development software
- DOS®-based program editor and terminal emulator software
- Dynamic Link Library (DLL) provided for use with Microsoft Windows and Microsoft Windows NT software development kits

Optional Software

- CompuCAM™, Motion Toolbox, Motion Builder and Dynamic Data Exchange Server

Interface Capability

- Operates stand-alone or interfaces to PCs & PLCs
- Two RS-232C communications ports

Physical

- Stand-alone package
- 120-240VAC operation
- Two 3 metre indexer-to-drive cables included
- Power cable included

Parameter	Value
Power	
Input	110-240VAC (±10%), 50-60 Hz, 0.3A @ 240VAC
Performance	
Position range	+2,147,483,648 steps
Velocity range	1 to 1,600,000 steps/sec
Acceleration range	1 to 24,999,975 steps/sec^2
Stepping Accuracy	±0 steps from preset total
Velocity Accuracy	±0.02% of maximum rate
Velocity Repeatability	±0.02% of set rate
Motion Algorithm Update Rate	2 ms
Inputs	
Encoder	Differential comparator accepts two-phase quadrature incremental encoders with differential (recommended) or single-ended outputs (+5VDC TTL compatible). Max frequency = 1.6 MHz, post-quadrature. Minimum time between transitions = 625 ns. Optically isolated.
24 Programmable	Optically isolated; TTL-compatible*; internal 6.8 KΩ pull-up sourcing current (or change jumper JU2 to sink current). Voltage range = 0V–24V. 50-pin plug is compatible with OPTO-22™ signal conditioning equipment.
2 triggers	Optically isolated, TTL-compatible* with internal 6.8 KΩ pull-up to +5VDC.
Analogue (joystick)	Voltage range 0-2.5VDC, 8-bit A/D converter. Optically isolated.
Home Enable; Positive (CW) & Negative (CCW) Limits; Pulse Cutoff; Joystick Trigger, Release, Select, & Velocity	Optically isolated, TTL-compatible*; internal 6.8 KΩ pull-ups to 5V; voltage range is 0–24V.
Drive Fault	Optically isolated, TTL-compatible*; internal 1.0 KΩ pull-up to 5V; voltage range is 0–5V.
Outputs	
26 Programmable (includes OUT-A and OUT-B on AUX connector)	Optically isolated, TTL-compatible*, open collector output. Can be pulled up by connecting OUT-P to +5V on AUX connector, or to user-supplied voltage of up to 24V. Max voltage in OFF state (not sinking current) = 24V, max current in ON state (sinking) = 30mA. 50-pin plug is compatible with OPTO-22™ signal conditioning equipment. Controllable with the 6000 Series programming language.
Step, Direction, Shutdown	Optically isolated; Differential line driver output. Signal high > 3.5VDC @ +30 mA, signal low < 1.0VDC @ -30 mA. +output for each differential driver is active high; -output for each driver is active low. Step pulse width is 0.3µs to 20 µs (depending on the state of the PULSE command—default is 0.3 µs.)

* TTL-compatible voltage levels: low ≤ 0.4V; high ≥ 2.4V

6200 dimensions (mm)_