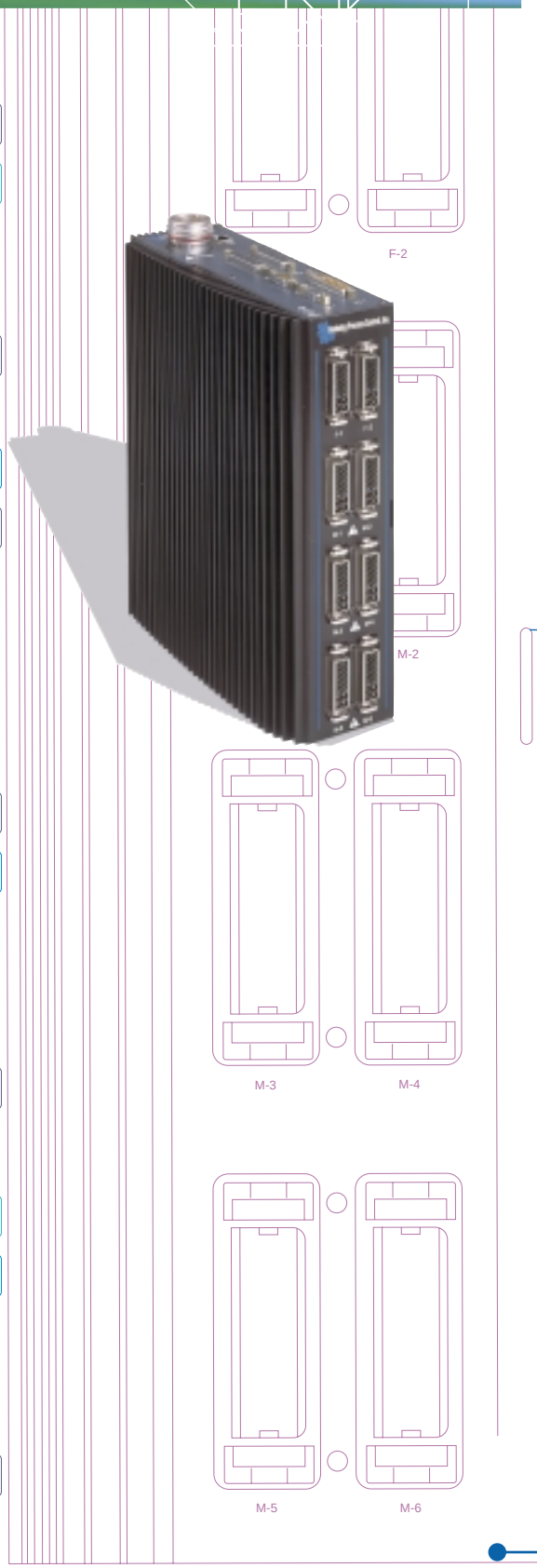
Berkeley Process Control, Inc.
Your Assurance of Automation Success™

BX2™

Motion and Machine Controller

The BX2 is an integrated motion and machine controller with internally powered servo drives. It features an expandable 100 Mbit Ethernet I/O system, scalable serial ports, and an object-based development environment. The BX2 provides full StateSmart™ machine control including control of servomotors, external drives, PID loops, and enterprise connectivity. By unifying the control of the entire machine or module, the BX2 maximizes throughput and reliability while minimizing total system cost and integration effort.



FEATURES

electronic Line Shafting — ELS electronically links the motion of one axis (slave) to another (master) axis providing a flexible and programmable relationship between the master and slave axes.

Cam Profiling — Tightly coordinated non-linear motion profiles can be commanded with on the fly synchronization by user defined position-based tables to specify a relationship between any master axis and its slave axis.

Programmable Limit Switch (PLS) — In applications where processes are synchronized by a lineshaft, PLS can electronically actuate control functions at specific points in the machine cycle, and in full coordination with the rest of the machine operation.

Predictive Maintenance — Minimizes unscheduled downtime. Controller monitors machine mechanism calibration values and process loop performance, indicating in advance when machine maintenance should be scheduled.

e-Diagnostics — Enables remote monitoring, trouble shooting and data logging of an entire machine via a corporate intranet, or the internet. Allows for easy integration of information into enterprise software.

Modular Software Development — The BX2 features a sophisticated development environment that reduces new software development significantly. With both online and offline development environments, MachineWorks enables users to create subroutines to handle malfunctions, visualize state changes, and connect to Manufacturing Execution Systems.

SCALE 1:2

SPECIFICATIONS

Controller Performance

- 64bit RISC processor
- Multitasking of servo control
- Expandable to 56 axes with networked controllers
- Internally powered servo axes, 160VDC, 5 A Cont., 10 A Peak

Controller Models

- 8 axis control/6 Internal Drives
- 6 axis control/4 Internal Drives
- 4 axis control/2 Internal Drives
- 8 axis control/0 Internal Drives
- 4 axis control/0 Internal Drives

Motion Control Features

- Point-to-point motion profile
- Trapezoidal & S-Curve Motion profiles
- Master/Slave axis control
- Autotuning of servo & PID loops
- Torque, speed and position control
- General PID loop control
- Programmable Limit Switch

Internal Inputs/Outputs

- 14 Digital outputs, 24VDC configurable
- 32 Digital inputs, 24VDC configurable
- Pre-integrated E-stop circuit
- Pre-integrated drive power interrupt circuit
- Fully connectorized to reduce point-to-point wiring
- Fully expandable via BXi/o Ethernet modules

Connectivity

- 100MB OpenLink™ Ethernet Network
- Multi controller network - standard
- Windows interface
- Accessories:
  - Ethernet hub 4/8 Ch
  - Serial port module 2/4 Ch

Environmental

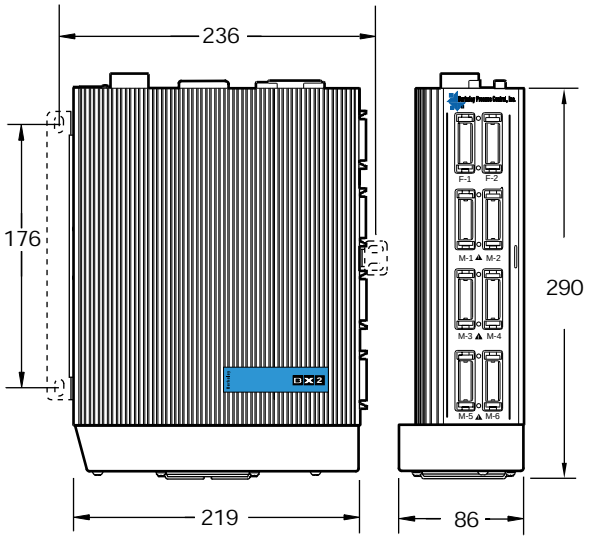
- Operating temp, 0-40°C
- 0-95% humidity, non-condensing
- Forced Air Cooling

Input Power Requirements

- Drive Power:
  110 VAC, 1ph/3ph, 50/60 Hz
  1600 Watts cont., 2400 Watts, peak*
  * based on 3-phase input
- Control Power:
  24 VDC
  1.7 Amps (min), 10 Amps (max)

Physical

- 290mm x 219mm x 86mm (11.425" x 8.6" x 3.375")
- Weight: 5.2kg (11.5lbs)
- Panel mount, back or side



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Corporate/USA Headquarters

4124 Lakeside Drive
Richmond, California 94806
tel 510.222.8004
fax 510.222.8737
www.berkeleyprocess.com
e-mail marketing@berkeleyprocess.com

European Headquarters

tel +44 (0)1904 435 138
e-mail info.eu@berkeleyprocess.com