

# ABB motion control products NextMove ESB-2 high performance motion controller



NextMove ESB-2 is an economic eight axes motion controller, with powerful multitasking Mint programming. It can provide control of up to 4 axes of closed loop control (servo or vector) and 4 axes of open loop control (step/direction outputs).

USB, Serial and CANopen provide flexible communications to PLC, distributed I/O and other devices.

The controller's low profile form factor and two part screw terminal connectors make it simple to install, while integrated digital/analog I/O including high-speed registration inputs make this a single box solution for many applications.



### Complete machine controller

NextMove ESB-2's complement of onboard digital and analog I/O allows the controller to be employed as a complete machine controller. The I/O can be expanded easily by CAN I/O devices available from ABB or alternatively, industry standard CANopen DS401 analog and digital I/O can be used.

### Flexible programming

Mint multitasking provides a powerful yet simple solution to complex motion tasks. Programming flexibility is further enhanced with the ability to develop Windows applications using the supplied ActiveX® control. The ActiveX control allows motion and I/O sequencing to be performed in any Windows programming tool, such as Visual Basic.

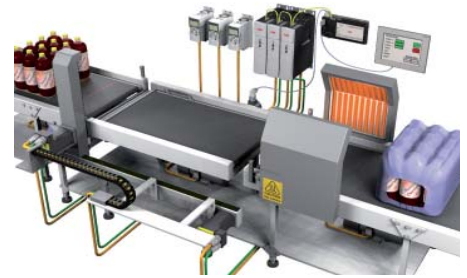
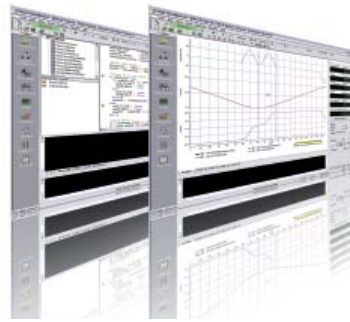
### Closed loop control

The NextMove ESB-2 can control up to 4 servo axes and is ideally matched with ABB's MicroFlex™ and EuroFlex range of servo drives, BSM servo and linear motor ranges.

### Open loop control

Open loop axes can be controlled from any of the four step and direction outputs.





### Stand-alone operation

Onboard flash memory and NextMove's Mint or C programming capabilities allow the controller to be operated as stand-alone. Onboard communications channels, including RS232/485, CANopen and USB make it easier to interface with other devices. Simple ASCII protocols such as Modbus RTU allow data transfer between PLCs and the NextMove controller.

### PC tool offers simple and intuitive commissioning

The Mint Workbench PC tool offers fast and simple setup, commissioning and monitoring in a single software tool. In addition to a step by step configuration wizard, oscilloscope graphing, parameter view/edit/compare it also includes motion programming, integrated help and a support tool to package a single concise email to streamline technical support.

### Ethernet machine control range

ABB's e100 motion control solutions provide all the benefits of NextMove ESB-2 combined with Ethernet based technology, controlling traditional analog, stepper and distributed drives and I/O in an array of different applications. Applications include over-wrappers, vertical form fill seal, tray sealers and markets such as metal forming, material handling and more.

### CANopen expansion

- CANopen manager
- DS401 I/O devices expand system I/O
- Distribute I/O devices as required
- Peer to peer process data exchange

### Serial port

- Modbus RTU
- RS232 or RS485 variants
- ActiveX support for PC communications
- Simple ASCII communications
- Host Comms Protocol for simple data exchange
- Compatible with some HMI panels

### USB - communications

- Configuration and programming with Mint Workbench
- ActiveX support for PC HMI interfaces or application use

### Digital and analog I/O

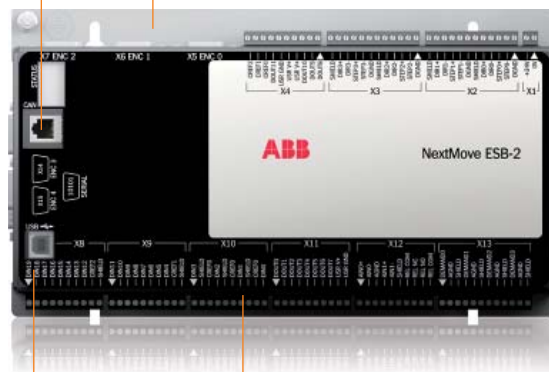
- 16 x standard digital inputs
- 4 x high speed inputs 1µs with registration functions
- 12 x digital outputs
- 1 x relay NO/NC 24 V

### Multi-axis motion control

- Up to 8 axes total
- 3 or 4 x analog axes of motion
- 4 x stepper axes

### 5 x encoder input (ABZ)

- Axis feedback
- Master encoder (line-shaft) input(s)
- Electronic gearing functions



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