



UniDrive® 110163 BMC-2 Basic Motor Control

The BMC-2 is a second generation Basic Motor Control in a compact, cost-effective package.

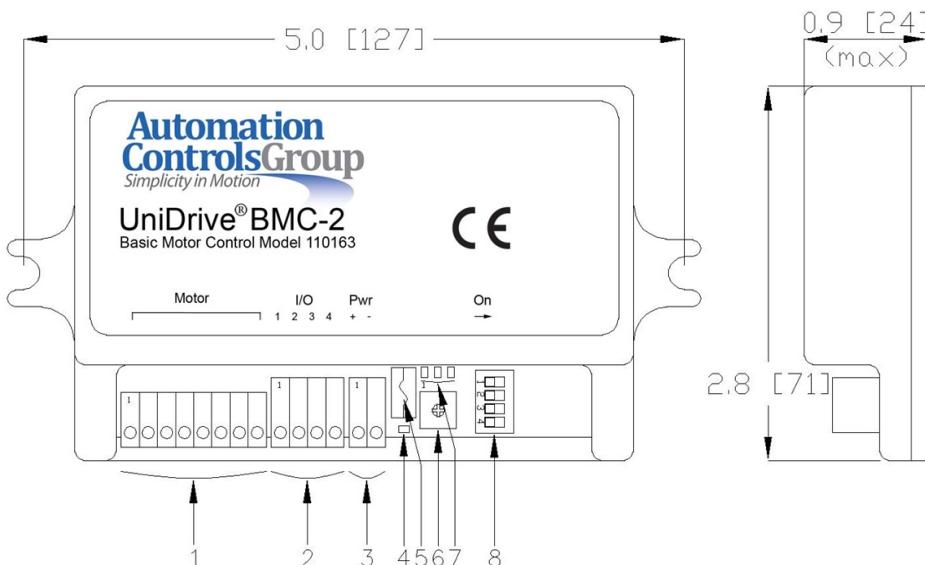
It is easy to install and set up for use. This control may be used with either the standard version 100 watt UniDrive® motor or our 125 watt UniDrive® motor.

This product is most useful in typical level, unit handling roller conveyor applications or on various actuators with external logic. It can also be used with 5:1, 7.5:1, 10:1 or 20:1 PowerCube™ assemblies that provide a very compact motor/reducer package for light to medium duty

pallet handling or industrial actuator applications.

Once the setup is complete, no further adjustments should be necessary. This is a simple straight forward control that will cause the motor to rotate in the desired direction in response to a simple PNP type input.

A complete installation manual is available to qualified conveyor original equipment manufacturers (OEMs) that will guide you through the installation, setup and use of the indicator LEDs to troubleshoot any setup errors.



1. UniDrive® Motor Connection Header
2. User Input-Output Connector (plug included)
3. +24V DC Power Input Connector (plug included)
4. Blown Fuse Indicator (red LED)
5. Replaceable 10A Fuse
6. Speed Control Potentiometer
7. Diagnostic LEDs
8. Configuration Switches

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Specifications

Electrical Specifications

Inputs

Input Voltage	<u>Minimum</u>	<u>Nominal</u>	<u>Maximum</u>
	22.0 VDC	24.0 VDC	28.0 VDC

Input Current	<u>Standby</u>	<u>Rated</u>	<u>Peak</u>
100W24 or 125W24 Motor Series	0.10 Amps	4.0 Amps	5.0 Amps

PNP Inputs	<u>Minimum</u>	<u>Maximum</u>
Voltage	18.0 VDC	28.0 VDC
Load		3.0 mA

Outputs

PNP Output	<u>Minimum</u>	<u>Maximum</u>
Voltage	Input -2 VDC	Input VDC
Current		350 mA
Inductive Loads Acceptable		

Environmental Specifications

Temperature Limits	<u>Minimum</u>	<u>Maximum</u>
Operating Temperature at Full Load 100% duty cycle	-4° F (-20°C)	72°F (22°C)
At 50% duty cycle	-4° F (-20°C)	86°F (30°C)
At 25% duty cycle	-4° F (-20°C)	104°F (40°C)
Storage Temperature	-40° F (-40°C)	158°F (70°C)
Humidity (non-condensing)	20%	90%

Control Functions

Speed Control

100W24 or 125W24 Motor Series	70 RPM (7.3 rad/s)	350 RPM (36.7 rad/s)*
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Speed Control Method

Default (Preset)	Single turn analog potentiometer
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Protection

	<u>Condition</u>	<u>Response</u>
Over Speed	Over 425 RPM	Apply Dynamic Braking
Stalled Motor	Under 35 RPM	Reduce Current to 2A
Over Voltage on Input	Over 28 VDC	Applies Dynamic Braking Immediately
Under Voltage on Input	Under 20 VDC	Applies Dynamic Braking - After 1 Second Motor Coasts

Braking Method

Dynamic Braking	Default Mode Brings Motor to a Halt Quickly
Zero-Motion Hold	Restricts Parcels on the Conveyor from Coasting

*to achieve 280-350 RPM at full rated torque a 125W24 motor must be used.

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