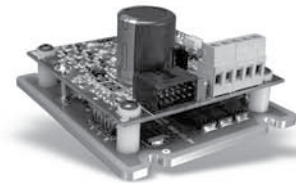


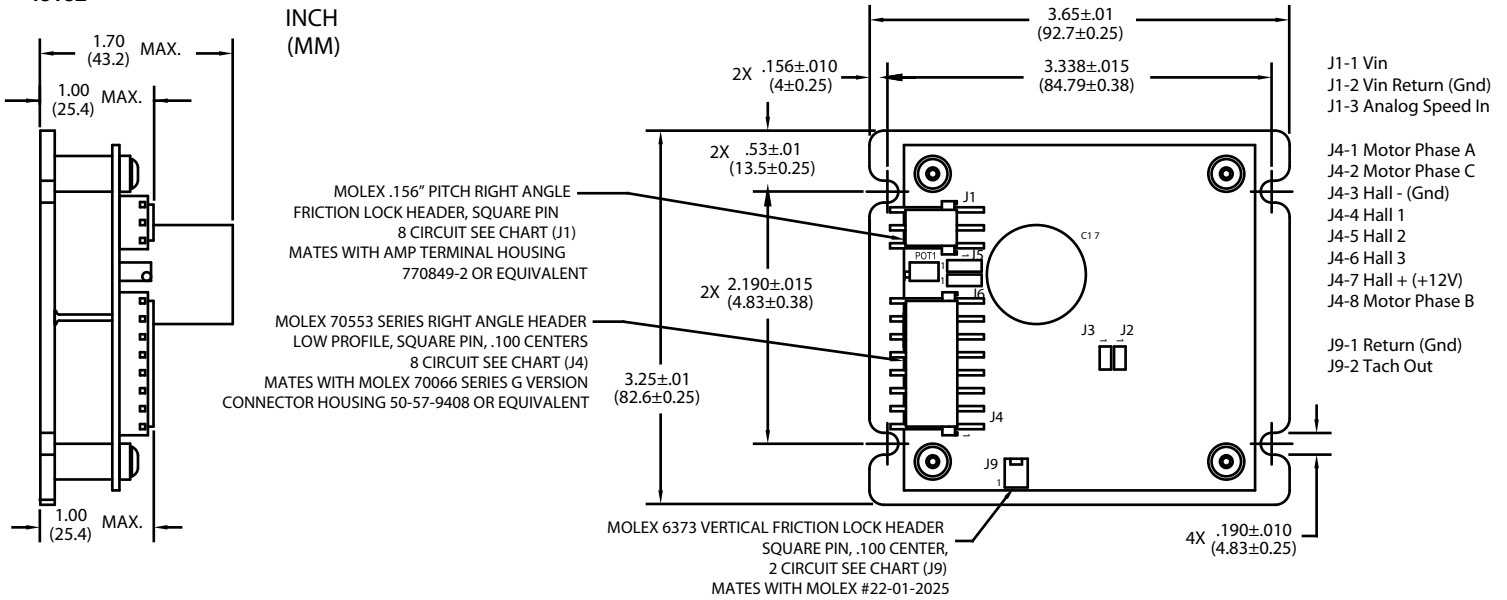
Drives

AMETEK offers variable speed brushless motor controllers in a single board with analog command input to compliment most of its brushless motors. These controllers are low voltage DC input and high current output with DSP flexibility for velocity and acceleration control.



PITTMAN[®]

48132



Specification	Units	Part/Model Number
		48132
Input Voltage	VDC	11-52
Max Continuous Current	Amps (A)	5
Controller PWM Frequency	kHz	25
Analog Speed Input	VDC	0-5
Electrical Hall Spacing	Degrees	60° to 120°
Waveform	-	6-step Trapezoidal
Current Limit Protection	-	Yes
Rotation	-	CW/CCW

NOTES:

- Temperature: Operating: 0°C to 50°C, Storage Air: -40°C to 85°C.
- Speed Control: Electrical speed control is achieved by applying a 0 to 5 VDC signal on J1 Pin 3 with respect to J1 Pin 2. Mechanical speed control is achieved by adjusting the potentiometer when J6 is in position 1 to 2.
- Current Control: Trip point is at 10 Amp maximum.

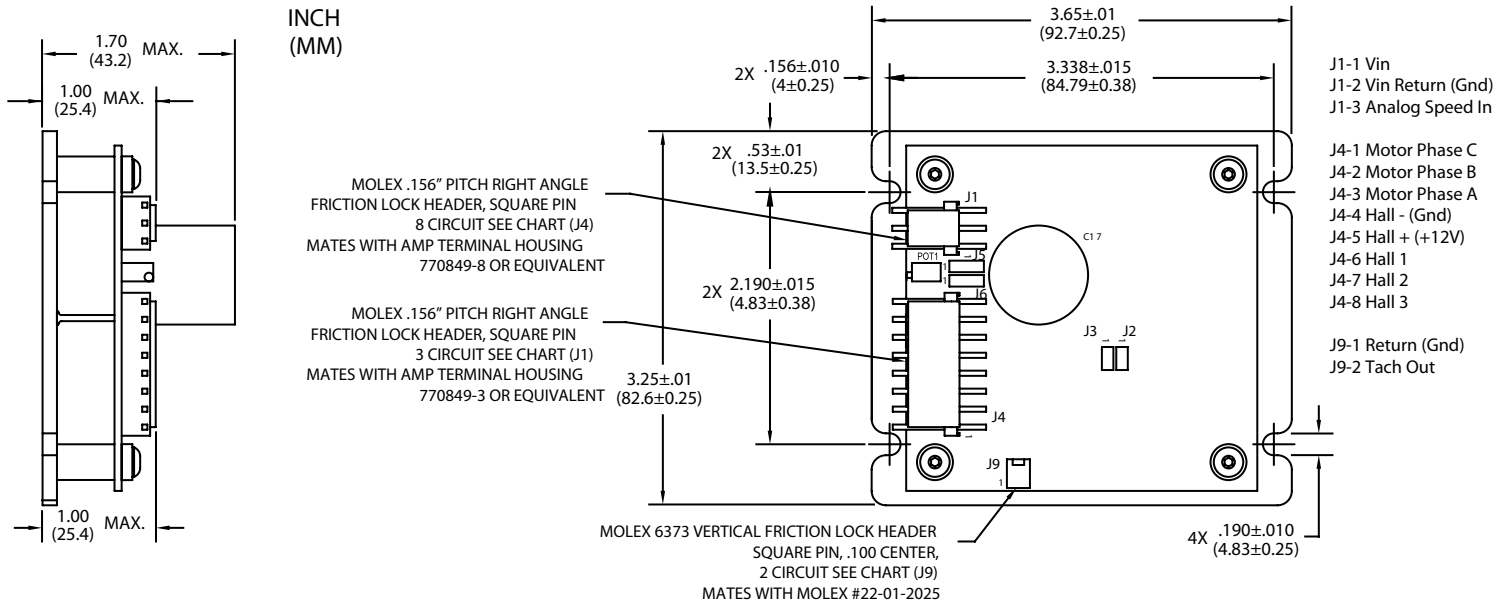
Jumper Settings:

- J2-Motor Sensor Spacing: 120° electrical spacing with jumper connected (default).
60° electrical spacing with jumper disconnected.
- J3-Rotations: Clockwise rotation with jumper connected (default).
Counter-clockwise rotation with jumper disconnected.
Do not change while motor is running or damage will occur.
- J5-Input Voltage: Position 1-2 for 16-52 VDC (default).
Position 2-3 for 11-16 VDC.
- J6-Speed Control: Position 1-2 for internal speed adjust, via on board potentiometer (default).
Position 2-3 for analog speed input, via 0-5 VDC signal applied to J1 pins 2 and 3.
- J9: F out provides a 0-12 VDC square wave to monitor speed

$$F \text{ out (Hz)} = \left(\frac{\text{Motor RPM}}{120} \right) \left(\frac{\text{Motor}}{\text{Poles}} \right)$$

This document is for informational purposes only and should not be considered as a binding description of the products or their performance in all applications. The performance data on this page depicts typical performance under controlled laboratory conditions. Actual performance will vary depending on the operating environment and application. AMETEK reserves the right to revise its products without notification. The above characteristics represent standard products. For products designed to meet specific applications, contact PITTMAN Motor Sales Department.

48133



Specification	Units	Part/Model Number
		48133
Input Voltage	VDC	11-52
Max Continuous Current	Amps (A)	10
Controller PWM Frequency	kHz	25
Analog Speed Input	VDC	0-5
Electrical Hall Spacing	Degrees	60 or 120
Waveform	-	6-Step Trapezoidal
Current Limit Protection	-	Yes
Rotation	-	CW/CCW

NOTES:

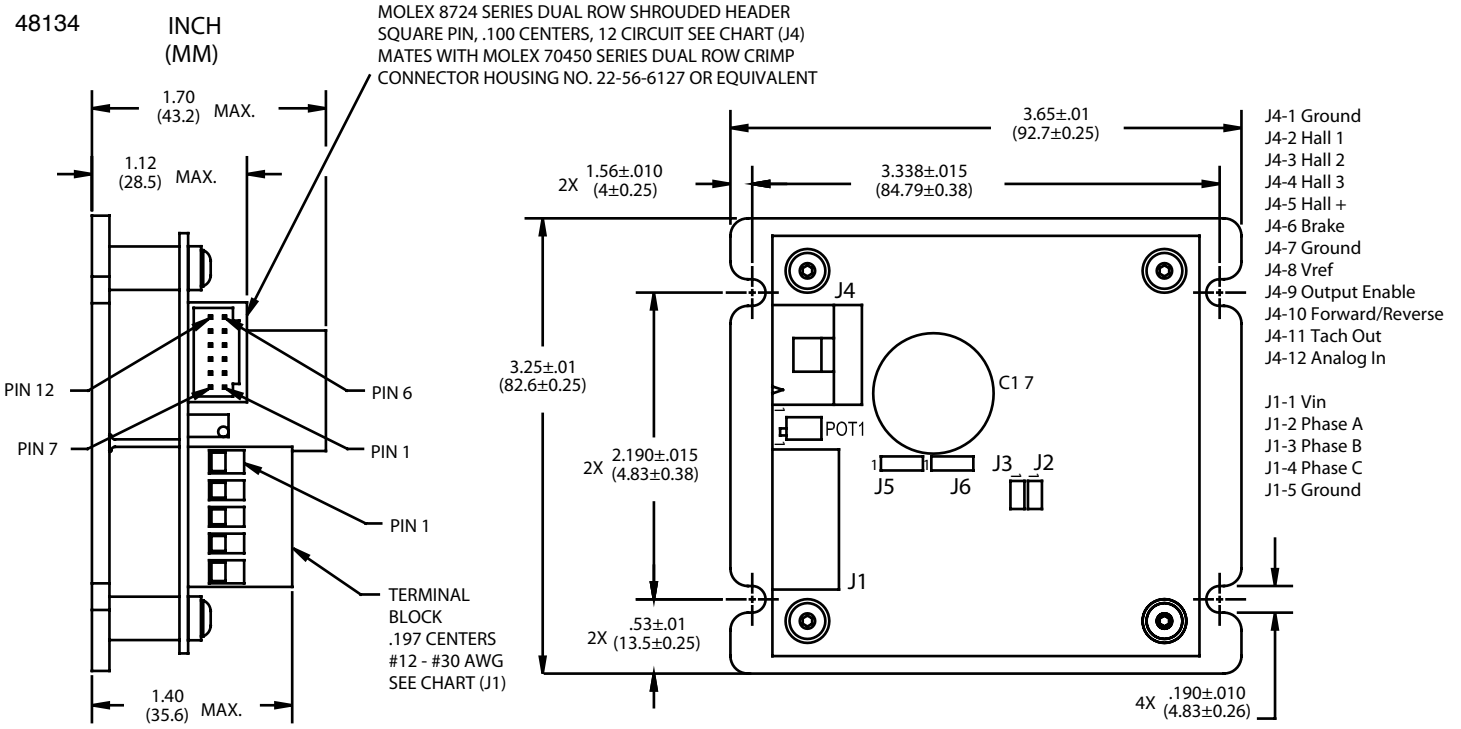
- Temperature: Operating: 0°C to 50°C, Storage Air: -40°C to 85°C.
- Speed Control: Electrical speed control is achieved by applying a 0 to 5 VDC signal on J1 Pin 3 with respect to J1 Pin 2. Mechanical speed control is achieved by adjusting the potentiometer when J6 is in position 1 to 2.
- Current Control: Trip point is at 10 Amp maximum.

Jumper Settings:

- J2-Motor Sensor Spacing: 120° electrical spacing with jumper connected (default).
60° electrical spacing with jumper disconnected.
- J3-Rotations: Clockwise rotation with jumper connected (default).
Counter-clockwise rotation with jumper disconnected.
Do not change while motor is running or damage will occur.
- J5-Input Voltage: Position 1-2 for 16-52 VDC (default).
Position 2-3 for 11-16 VDC.
- J6-Speed Control: Position 1-2 for internal speed adjust, via on board potentiometer (default).
Position 2-3 for analog speed input, via 0-5 VDC signal applied to J1 pins 2 and 3.
- J9: F out provides a 0-12 VDC square wave to monitor speed

$$F \text{ out (Hz)} = \left(\frac{\text{Motor RPM}}{120} \right) \left(\frac{\text{Motor}}{\text{Poles}} \right)$$

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Specification	Units	Part/Model Number
		48134
Input Voltage	VDC	11-28
Max Continuous Current	Amps (A)	20
Controller PWM Frequency	kHz	25
Analog Speed Input	VDC	0-5
Electrical Hall Spacing	Degrees	60 or 120
Waveform	-	6-Step Trapezoidal
Current Limit Protection	-	Yes
Rotation	-	CW/CCW

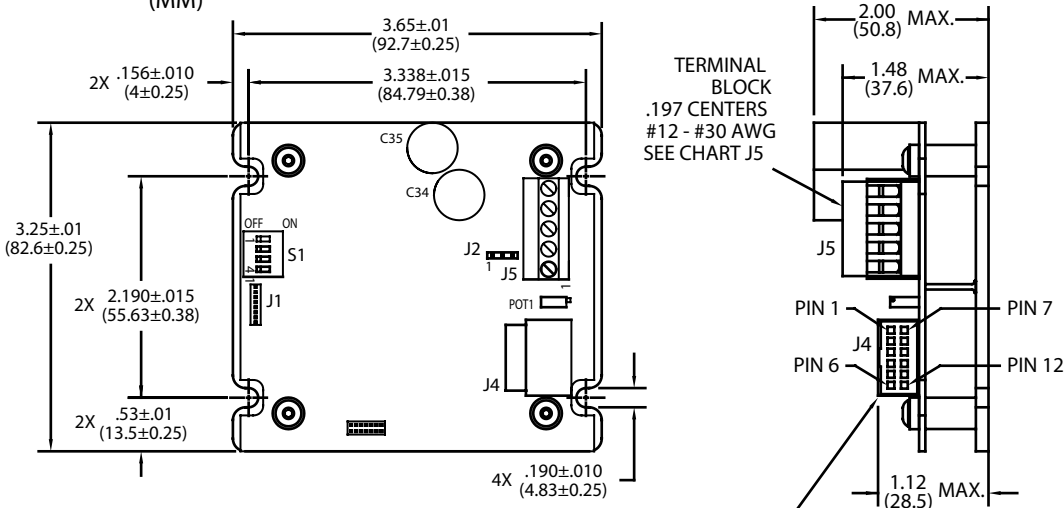
- Notes:
- Temperature: Operating 0° C to 50° C, Storage Air: -40° c to 85° C.
 - Speed Control: Electrical speed control is achieved by applying a 0 to 5 VDC signal on J4 Pin 12 with respect to J4 Pin 7. Mechanical speed control is achieved by adjusting the potentiometer when J6 is in position 1 to 2.
 - Current Control: Trip point is at 20 Amp maximum.

Jumper Settings:

- J2-Motor Sensor Spacing: 120° electrical spacing with jumper connected (default).
60° electrical spacing with jumper disconnected.
- J3-Rotaions: Clockwise rotation with jumper connected (default).
Counter-clockwise rotation with jumper disconnected.
Do not change while motor is running or damage will occur.
- J5-Input Voltage: Position 1-2 for 16-52 VDC (default).
Position 2-3 for 11-16 VDC.
- J6-Speed Control: Position 1-2 for internal speed adjust, via on board potentiometer (default).
Position 2-3 for analog speed input, via 0-5 VDC signal applied to J1 pins 2 and 3.

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48140 INCH (MM)



TERMINAL BLOCK
.197 CENTERS
#12 - #30 AWG
SEE CHART J5

FEATURES:

- Input Voltage Range: 11 to 52 VDC.
- Thermal Trip: 105°C or programmable.
- Braking: Connect J4-6 to Vin.
- Rotation: Direction can be changed during operation.
- Acceleration: Fast, slow, or programmable.

MOXLE #90130-3112 DUAL ROW SHROUDED HEADER
SQUARE PIN, .100 CENTERS, 12 CIRCUIT SEE CHART (J4)
MATES WITH MOLES #90142-0012 DUAL ROW CRIMP
CONNECTOR HOUSING WITH #90119-2109 SOCKET TERMINALS

Specification	Units	Part/Model Number
		48140
Input Voltage	VDC	11-52
Max Continuous Current	Amps (A)	20
Controller PWM Frequency	kHz	20
Analog Speed Input	VDC	0-5, 2k-20k Potentiometer
Electrical Hall Spacing	Degrees	60 or 120
Waveform	-	6-Step Trapezoidal
Current Limit Protection	-	Yes
Rotation	-	CW/CCW

NOTES:

- Temperature: Operating: 0° C to 50° C, Storage Air: -40° C to 85° C.

Switch Settings:

- S1.1 Off - 60° Electrical
On - 120° Electrical
- S1.2 Off - OE Active when pulled high.
No - OE Active when pulled low.
- S1.3 Off - External speed control.
No - Internal potentiometer speed control.
- S1.4 Off - Fast acceleration.
No - Slow acceleration.

Jumper Settings:

- J2 1-2, 11-18 VDC
- J2 2-3, 16-52 VDC
- J4-1 Ground
- J4-2 Hall 1
- J4-3 Hall 2
- J4-4 Hall 3
- J4-5 Hall +
- J4-6 Brake
- J4-7 Ground
- J4-8 Vref
- J4-9 Output Enable
- J4-10 Forward/Reverse
- J4-11 Tach out
- J4-12 Analog/In
- J5-1 Ground
- J5-2 Phase C
- J5-3 Phase B
- J5-4 Phase A
- J5-5 Vin

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