

# Model 3984 Isolation and Interface Board

Input signals from transducers, microprocessor controls, programmable logic controllers and other electronic control devices may produce grounded signals or signals which are at a different potential from those used in Bodine motor controls. This optical isolation board is designed to provide an interface that isolates the motor control signals from external electronic control signals, while still providing full use of Bodine control features.

- **AC Input Power** 115/230 VAC, 50/60 Hz
- **Scaleable voltage** accepts a wide range of current and voltage input signals
- **Delivers an isolated output signal** of 0-10 VDC @10 mA.
- **Built-in sensor** changes the motor direction when signal goes from positive to negative
- **Min and Max pots** adjust output speed based on a given value of input signal
- **Isolated signals** for motor disable and direction of rotation
- **Tachometer output** indicates motor shaft speed (Bodine brushless DC controls only)
- **Isolated power supply** connections on both input and output
- **Power supply** delivers  $\pm 12$  VDC @10 mA
- **Flexible panel mount**



Model 3984 Analog Interface and Isolation Board for use with most basic chassis speed controls such as those shown below



Typical speed controls for permanent magnet DC and brushless DC gearmotors and motors



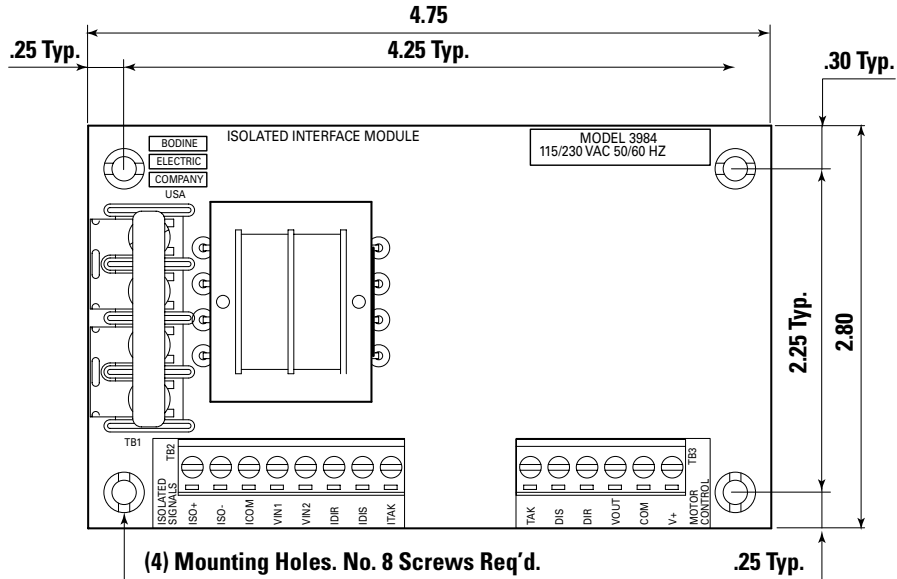
## Typical Applications

The 3984 Isolation Board allows remote control of one or more speed controls. It can replace an isolation transformer, allowing equipment with different ground-referenced circuitry to work together.

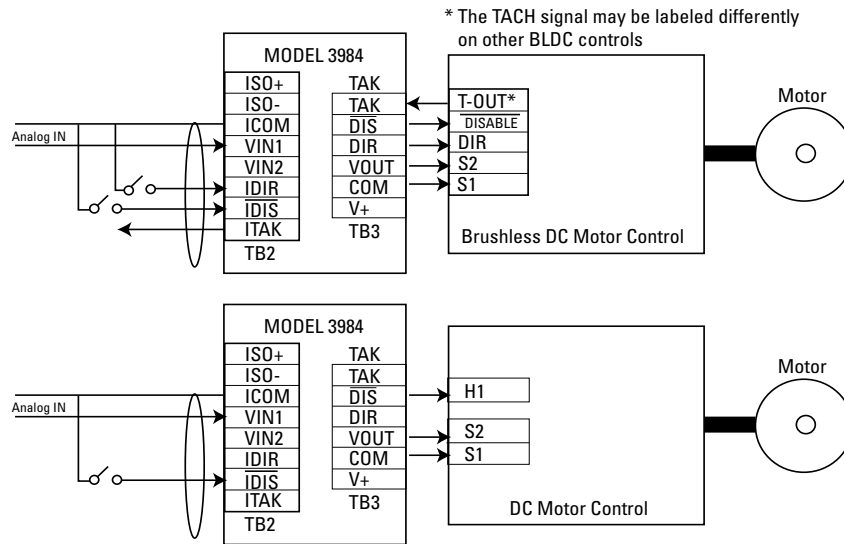
AC Input (VAC 50/60Hz)	Motor Speed Signals					Min. Pot. Range (VDC) <sup>1</sup>	Max. Pot. Range <sup>1</sup>	Aux. Signals	Ambient Op. Temp (°C)
	Input V Range (VDC)	Input Current Range (mA)	Output Signal Range (@10 mA)	In/Out Linearity (@10 mA)	Thermal Drift (mV/°C)				
115/230	$\pm 25$ $\pm 250$	1-5; 4-20 10-50	0-10	$\pm 0.1$	4	Offset VOUT $\pm 3$	Scale VOUT 0-2 times	Motor Disable Motor Direction Digital Tach	0-50

1. Min and Max adjustments are limited to within the 0-10 VDC limits of VOUT

## Dimensions



## Wiring examples



**Bodine offers over 1,000 standard gearmotors, motors and system-matched speed controls.**

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Bodine offers the widest selection of variable-speed AC, permanent magnet DC and brushless DC fractional horsepower gearmotors and motors in the industry. For complete specifications, 3D CAD drawings, and to order online, visit [bodine-electric.com](http://bodine-electric.com).

