

Analog Isolation Rescaling Module for Variable Frequency Drives

FEATURES

- 120 VAC Powered
- 500 VAC/1500 VDC analog optical isolation
- Re-scalable Input and Output
- Output is "Limited" to calibrated range
- Selectable for voltage or current signal input and output
- On-board 24 VAC Isolation Transformer
- LED's indicate incoming and outgoing power supply



APPLICATIONS

- Ground loop isolation
- Variable Frequency Drive Controller signal isolation
- Grounded electric actuator isolation
- Fluorescent light dimmer isolation
- General analog signal input and output isolation

PRODUCT DESCRIPTION

This product will accept a current or voltage input, and deliver a single voltage or sourcing current output. Developed to accept a feedback signal from a variable speed drive and direct it back to the controller (BAS) for monitoring motor speed, it can be modified for signal

isolation between the output of the BAS system and the VFD drive controller also. Isolation is provided between the power supply, the signal input, and signal output circuits. The AIM3 is 120 VAC powered.

SPECIFICATIONS

Electrical Requirements

Power Supply:

AC Voltage	120 VAC +10%, -10%
Max Current Consumption	50 mA

Signal Input (jumper shunt selectable)

Current Ranges:	0 to 20 mA DC, 4 to 20 mA DC
Impedance:	249 ohms \pm 1%
Voltage Ranges:	0 to 5 VDC or 1 to 5 VDC
Impedance:	Greater than 5,000,000 ohms
Voltage Ranges:	0 to 10 VDC or 2 to 10 VDC
Impedance:	20,000 ohms

Signal Output (jumper shunt selectable)

Current Ranges:	0 to 20 mA DC or 4 to 20 mA DC
Maximum Load Impedance:	750 ohms
Voltage Ranges:	0 to 5 VDC or 1 to 5 VDC
Minimum Load Impedance:	500 ohms
Voltage Ranges:	0 to 10 VDC, 2 to 10 VDC
Minimum Load Impedance:	1,000 ohms
Accuracy (all but 2 to 10 V range):	Less than or equal to 1% of output span
Accuracy (2 to 10 V range):	Less than or equal to 1.5% of output span
Full Scale Resolution:	256 steps without offset, 205 steps with offset

Isolation

Capable of withstanding 500 VAC (rms) for a minimum of 1 minute from power to input, input to output, and output to power.

Custom factory calibration is available - specify when ordering

Mechanical Requirements

Connections

Power:	Tri-Barrier terminal with rising clamp washer
Wire Size	Up to one 12 AWG maximum
Signal:	45° Captive screw, box clamp design in nickel plated copper alloy
Wire Size:	Up to one 14 AWG maximum

Dimensions

3.25" L x 4.00" W x 1.25" H (not mounted in snaptrack)

Weight

8 oz. Maximum (not including snaptrack)

Mounting

Furnished with 4.0" length of 3.25" wide (3TK) snaptrack

Optional Mounting: Four corner holes in the AIM3 allow installation using standoffs and #6 screws (provided by user)

Environmental Requirements

Operating Temperature	32 to 120 deg F
Storage Temperature	-20 to 150 deg F
Operating Humidity	10% to 95% non-condensing

Specifications may change without notice to improve product performance or functionality.