Specifications

Power Requirements	12 to 30VDC @ 400mA via the top-front screw terminal connections --OR— 9VDC @ 200mA from a 2A06 or 2A16 power supply via the interconnection bus
Connections	Pluggable, Cage Clamp Screw Terminal Blocks, Accept 12 to 24 AWG
Alarm Output Relay	Located at the lower-front of the module Form-C (SPDT) rated 1A @ 30VDC
Update Rate	57.6KHz, independent of number of modules/channels utilized
Optical Connection	SC
Optical Fiber Type	Single-Mode
Optical Dynamic Range	11dB, over 9/125 fiber
Ambient Temp. Effect	0.025% / 50°C change
Ambient Conditions	-40 to 85°C 0 to 95% Humidity (Non-condensing)
Mounting	35mm DIN Rail
Weight	< 9oz
Flammability Rating	UL V-0

Safety and Warning Information

Connect the DIN Rail, via the Model 2A09 End Clamp, to protective earth ground with low impedance. The modules are grounded to PE when they are snapped onto the DIN Rail. A Model 2A09 End Clamp on each side of the module bundle on the DIN rail prevents accidental disconnection of the modules' interconnection bus.

When in operation, do not look directly into the transmit optical port or use magnification or focusing equipment to view optical output.

IEC 60825-1, Class 1 Laser Product
FDA 21 CFR 1040.10 & 1040.11

CAUTION: Use of controls and/or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

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Weed Instrument

Fiber Optics

EOTec 2000 MUX Model **2M59** MUX Base Module

Installation Instructions

Optical Compatibility:
1300nm, Single-mode Fiber with SC Optical Connections

Description

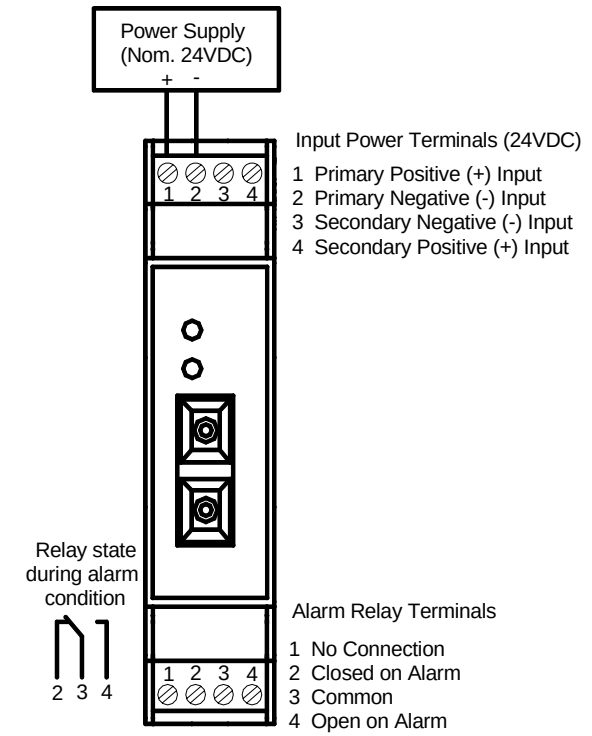
The Model 2M59, MUX Base Module is designed to multiplex/de-multiplex signals from the module interconnection bus and its duplex (one transmit and one receive) fiber optic link. As many as 4 input and/or output modules can be interconnected to the MUX Base Module for complete, full duplex operation. There are no internal operational settings required.

Connections

POWER: At the top-front of the module, a pluggable screw terminal block is provided to apply power from one or two, nominal 24Vdc sources (redundant supply connections). These inputs will accept a voltage level between 12VDC minimum and 30VDC maximum. The 2M59 Module will then provide the operating power to all additional modules connected via the interconnection bus. If power from an AC source is preferred, the models 2A06 and 2A16, universal input supplies, are available and will supply operating power to the modules via the interconnection bus. Power can be provided to the modules using any combination of the above.

Alarm Relay: At the bottom-front of the module, the contacts of a Form-C (SPDT) Alarm Relay are provided for remote indication of optical receive integrity. If the optical signal level falls below the operational sensitivity of the receive optical port, this relay will de-energize (change state). Loss of power to the module will also cause this alarm relay to de-energize.

Connections



System Troubleshooting Tips

Non-illuminated LED status indicators or LED indicators that are red or flashing red can point to problem areas of the individual modules of the EOTec 2000 MUX system.

The upper LED indicator on each module is illuminated green when operating power is present at the module. If this LED is not illuminated, verify that power is applied, that the modules' interconnection bus is fully seated at each module, that the voltage levels and current ratings of the power source are sufficient for operation and that the polarities of the connections are correct. Cycling the power will reset the units and restart internal programming.

On the MUX Base Module, directly above the fiber ports is a bi-color (red/green) LED status indicator. When this LED is green, the MUX Base Module is operating normally. If this LED is illuminated constant red, it is indicating that its receive optical signal level is inadequate for system operation. Verify the fiber optic cables are not broken, are connected from TX to RX and are securely fastened. If this LED is *flashing red* it is indicating duplicate or non matching I/O module addresses. Verify that there is an address match between the input module and its corresponding output module and that no two modules on the same side of the fiber link are set to the same address.

On the I/O modules, there are two channel status LED indicators marked CH1 and CH2 that are illuminated Green when input/output signals are present. If a channel status LED indicator is not illuminated, verify that the input/output connections are connected to the correct terminals and that the polarities are also correct. On the analog input modules, measure the input signal levels and ensure they are present and are *at least* 1mVDC for 0 to 10VDC input module or 0.002mADC for 4 to 20mA input module. These same levels on each output of the analog output modules will illuminate its corresponding channel status LED.

If you are still experiencing difficulty, contact the factory for assistance.