Specifications

Power Requirements	9VDC @ 200mA via the interconnection Bus from a 2A06 or 2A16 power supply or the MUX Base Module (2M55, 2M57, 2M59 or 2M61)
Connections	Pluggable, Cage Clamp Screw Terminal Blocks, Accept 12 to 24 AWG
Output Range	0 to 10VDC
Update Rate	57.6KHz, independent of number of modules/channels utilized
Min. Output Resistance	70 Ohms
Signal Resolution	16 bit
Reference Accuracy	0.01% @ 25°C
Ambient Temp. Effect	0.08% / 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.

Important Notice - Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risk and liability in connection with such use. WEED INSTRUMENT'S WRITTEN WARRANTY FOR THE PRODUCT IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The user's exclusive remedy for breach of Weed Instrument's written warranty shall be the repair or replacement of such quantity of product which is proven to be defective. In no case shall Weed Instrument be liable for any special, incidental, or consequential damages based upon breach of contract, negligence, strict liability or other legal theory.

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Weed Instrument
Fiber Optics

EOTec 2000 MUX Model **2M21**

Dual Channel, 0 to 10VDC Output

Installation Instructions

2 Channel, 0 to 10VDC, Analog Output Module

For use with the EOTec 2000 Multiplexer (MUX)

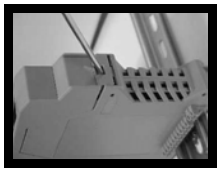
Description

The Model 2M21, 0 to 10VDC, Analog Output Module is designed to provide two channels of process signal output. The output is actually calibrated from 0 to 11V. The input signals from the mated 2M11, 0 to 10V Input Module on the opposite end of the fiber link are digitized and passed to its MUX Base Module where they are multiplexed and converted to a fiber optic signal. The MUX Base Module at this end of the fiber link de-multiplexes the signals and passes them to the 2M21 Module for conversion back to their original 0 to 10VDC format.

Absolutely no field adjustments are required as all units deliver the highest degree of accuracy over their entire specified ambient temperature range.

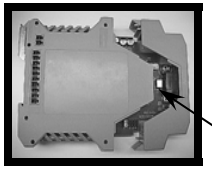
Operational Settings

Use a small screwdriver to press on the latches (indentations) at the top and bottom of the housing. Slide the housing open.



A two position DIP switch (SW1) is used to set the **address** of the module and it must **match** the address of its mating module at the **opposite** end of the fiber link. **Do not** set two modules at the **same** end of the fiber link to the same address setting. The 4 possible address settings are:

Address	SW1-1	SW1-2
00	OFF	OFF
01	OFF	ON
10	ON	OFF
11	ON	ON



DIP switch location

Close the housing by sliding it back together until both the top and bottom latches "click" into place.

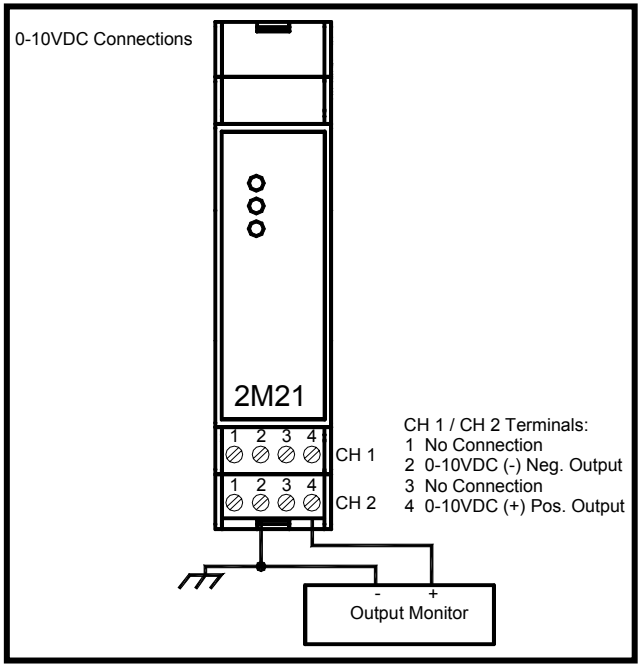
Connections

POWER: The 2M21 obtains its operating power from the module interconnection bus. The operating power originates from the MUX Base Module (2M55, 2M57, 2M59 or 2M61) or from an EOTec 2000 power supply (2A06, 2A16, 2A08 or 2A18)

4 to 20mA OUTPUT: The Channel 1 output terminal block is towards the bottom-front of the unit and the Channel 2 output terminal block is directly behind and below Channel 1. On both terminal blocks, the individual screw terminal connections are numbered from left-to-right as follows:

Terminal 1	no connection
Terminal 2	(-) negative 0-10VDC Output
Terminal 3	no connection
Terminal 4	(+) positive 0-10VDC Output

IMPORTANT NOTE: Internally, the module's 0 to 10VDC negative (-) output terminals are connected to the module bundle's input supply negative (-) terminal (circuit common).



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.