Specifications

Power Requirements	22 to 26VDC @ 200mA Per unit
Power Connections	Pluggable, screw terminal block at the top-front of the housing —or— Via the interconnection Bus and a Model 2A56 Universal AC Input Power Supply Module
Analog Output Range	4 to 20mADC
Analog Output Load	600 Ohms maximum
Unit Accuracy	0.05% @ 25°C
Ambient Effect	0.05% / 50°C change
Ambient Range	-40 to 85°C 0 to 95% Humidity (Non-condensing)
System Response	< 2ms (10 to 90% step)
Optical Wavelength	850nm
Optical Cable (typical)	200/230µm multi-mode simplex (one) fiber optic cable
Optical Loss Budget	37dB, 200/230µm fiber, mated with a 2T12
Optical Connectivity	SMA (905 or 906 compatible)
Electrical Connections	Pluggable, Cage Clamp Screw Terminal Blocks, Accept 12 to 24 AWG
Mounting	35mm DIN Rail
Weight	< 9oz
Flammability Rating	UL V-0

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.

Weed Instrument Co., Inc.
Fiber Optics Division

Phone: 800-880-9333
512-434-2850
Fax: 512-434-2851
Email: fiberop@weedinstrument.com
Visit: www.weedinstrument.com

Publication Number: RM0900138 Rev. 12/03

Weed Instrument
Fiber Optics

EOTec 2000 Model
2R12
FOR 4 – 20mA

Installation Instructions

Analog Link
Fiber Optic Receiver (FOR)

Converts the Fiber Optic Signal to the 4 to 20mA Process Signal

850nm, SMA Connection

Description

The Model 2R12 Fiber Optic Receiver (FOR) Analog Link is designed to accept a fiber optic signal and convert it to a 4 to 20mA process signal. The mated 2T12 Fiber Optic Transmitter (FOT) converted the original 4 to 20mA signal to a fiber optic signal.

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

LED Indicators

The Model 2R12 has a green LED "LOCK" indicator that illuminates when adequate fiber optic signal is present for conversion. An amber LED "OVER RANGE" indicator illuminates when the analog input signal at the mated FOT exceeds the normal input signal limit.

System Troubleshooting Tips

Verify that the power supplies are on, that they are the correct voltage and current rating and are connected in the correct polarity.

Verify the correct polarity connections are made to the INPUT and OUTPUT terminals.

Measure the INPUT signal level to the FOT and ensure it is within the normal range.

Verify the connections of the fiber optic cable are secure.

Verify the LOCK LED is illuminated on the FOR. If it is not, this may indicate inadequate optical signal from the FOT, a broken or high loss fiber, or a defective FOT or FOR unit.

Verify that the OVER RANGE and UNDER RANGE LEDs are not illuminated on either unit.

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

Connections

There are two pluggable terminal blocks on the FOT and each has 4 screw terminal connections.

POWER: The terminal block at the top-front of the housing is where connection may be made for supplying the unit's operating power from a nominal 24VDC source. The unit may also obtain operating power from the Model 2A56 power supply module via the modules integrated Bus interconnections. The Model 2A56 is a universal AC input power supply. Both power sources may be connected to the FOT for redundancy. The power connection terminals numbered from left-to-right are as follows:

Terminal 1	no connection
Terminal 2	(+) plus 24VDC
Terminal 3	(-) negative 24VDC (Return)
Terminal 4	CASE (DIN rail, chassis, Protective Earth Ground)

GROUNDING: The CASE terminal and the negative power terminal of the FOT should always be connected through low impedance to Earth Ground.

IMPORTANT NOTE: Internally, the FOT's negative (-) input terminal is connected to the 24VDC supply negative (-) input terminal.

OUTPUT: The terminal block at the lower-front of the unit is where the connections are made to the 4 to 20mA output loop or indicator. The connection terminals numbered from left-to-right are as follows:

Terminal 1	OVER RANGE (open collector)
Terminal 2	LOCK (open collector)
Terminal 3	(+) plus 4-20mA OUTPUT
Terminal 4	(-) negative 4-20mA OUTPUT

When on with their respective LED indicators, the open collector output terminals for the OVER RANGE and LOCK functions provide a path to the –24VDC return. These outputs are rated for 5 to 30VDC at 5mA and are internally protected against continuous short circuits. The outputs can be utilized to provide remote status or control.

Connections (continued)

OPTICAL CONNECTION: The RX optical port on the front of the unit accepts a 905 or a 906 SMA simplex (one) fiber connector and is compatible with any size multi-mode glass fiber. This fiber port receives the optical data signal that was generated at the mated Fiber Optic Transmitter (FOT).