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

Input Range 4 to 20mADC

Input Impedance 127 Ohms

+ 1 Diode drop

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

---or-

62.5/125µm multi-mode simplex (one) fiber optic

cable

Optical Loss Budget 37dB, 200/230µm fiber,

mated with a 2R14 25dB, 62.5/125µm fiber, mated with a 2R14

Optical Connectivity ST 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

Safety and Warning Information



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 LED 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.

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 WARRANTIFS 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



2T14

FOT 4 - 20mA

Installation Instructions



Analog Link Fiber Optic Transmitter (FOT)

4 to 20mA Process Signal to Fiber Optic Converter

850nm, ST Connection

ST is a trademark of AT&T

Description

The Model 2T14 Fiber Optic Transmitter (FOT) Analog Link is designed to accept a 4 to 20mA process signal and convert it to a fiber optic signal. The mated 2R14 Fiber Optic Receiver (FOR) returns the signal to its original 4 to 20mA format.

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 2T14 has a green LED to indicate the presence of POWER. Two separate amber LED indicators give visual indication that the analog input signal is OVER RANGE (above) or UNDER RANGE (below) of the normal input signal limits.

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-toright 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.

INPUT: The terminal block at the lower-front of the unit is where the connections are made to the 4 to 20mA input signal. The connection terminals numbered from left-to-right are as follows:

Terminal 1 no connection Terminal 2 no connection

Terminal 3 (+) plus 4-20mA INPUT Terminal 4 (-) negative 4-20mA INPUT

OPTICAL CONNECTION: The TX optical port on the front of the unit accepts an ST simplex (one) fiber connector and is compatible with any size of multi-mode glass fiber. This fiber port generates the optical data information that will be passed to the mated Fiber Optic Receiver (FOR).

Connections



