

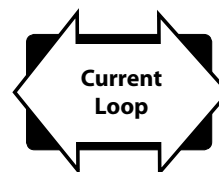
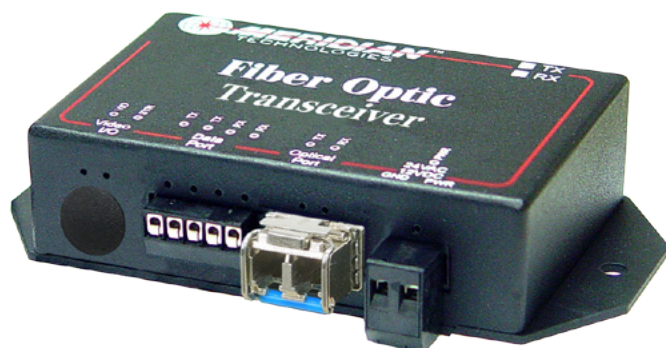


MERIDIAN
TECHNOLOGIES

NX-1I/1I-SFP

DigiCool™

Digitally Encoded One Bi-directional
4-20mA Current Loop Channel
using Small Form Pluggable (SFP)
Optical Device



FEATURES:

- One Duplex channel of 0-5VDC Analog Signal or Current Loop transmission
- Excellent Signal Insulation
- Prevent Ground Loops and Computer Noise Effects on Your Analog Signals
- Transfers Analog Signals on distances up to 50 km
- Linearity: better than +/-0.05%
- High Signal to Noise Ratio: 72 dB
- Input Signal Up to +5V@DC-5KHz or 4-20mA@DC-5KHz
- Low Power Consumption
- High Efficiency, Isolated Power Supply
- Wide Optical Dynamic Range
- Multimode, Singlemode and CWDM fiber options via SFP modules
- Local LED Status Indicators to Monitor Critical System Parameters
- LC, SC Optical Connector (SFP dependent)
- Screw Terminal Connector for Analog Signals

DESCRIPTION:

This NX-1I/1I-SFP module incorporates an all-digital encoding technology and transmits one bi-directional 0-5VDC analog signal or 4-20mA Current Loop signal over multimode or singlemode fibers.

The user may configure the Analog input to be 0 Volt to +5 Volt or 4 to 20 mA by using single jumper. The receiver will output 4-20mA or 0-5VDC signal.

This product incorporates the industry standard Small Form Pluggable (SFP) optical device. This SFP gives you the option for either singlemode, multimode or CWDM wavelength selections by simply plugging in the appropriate SFP module.

This module belongs to new DigiCool™ series which features very Low Power Consumption an Isolated High Efficiency Power Supply.

Standard 5-pin terminal blocks are used for easy connection to data channels interface.

CONFIGURATIONS:

The NX-1I/1I-SFP products are available in small stand-alone modules for easy mounting on walls, shelves and other convenient flat surfaces.

MARKETS:

- ✓ Intelligent transportation systems (ITS)
- ✓ Security and surveillance
- ✓ Access Control

SPECIFICATIONS:

Analog Signal / Current Loop

Analog Input Range	0-5 VDC or 4-20 mA
Output Voltage Range	0-5 VDC or 4-20 mA
Nonlinearity Error	+/-0.05%@0-5 VDC range
Noise	Better than 1mVRMS
Input Impedance	100 KOhms
Analog Bandwidth	DC-5 KHz
Resolution	16 Bit

Optical

Fiber Data Rate	100 Mb/s
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Connectors

Optical	LC, SC - SFP dependent
Power (module)	2-pin Screw Terminal
Current Loop	5-pin Screw Terminal

Power **

Input Power	12-24VAC / DC
Power Consumption	2.8 W

Indicators

1 - Green	Power On
1 - Bi-color	Tx Laser driver Normal / Error
1 - Bi-color	Rx Optical signal Present / Error
1 - Green	Tx Audio Present
2 - Bi-color	Tx Signal Present (Green), Out of range (Red)
2 - Bi-color	Rx Signal Present (Green), Out of range (Red)

Physical

Dimensions (Module)	117 mm (H), 61 mm (W) 25.5 mm (D) (4.6 x 2.4 x 1.1 inch) with flanges
Weight (Module)	150 gms (0.34 lb)

Environmental

Operating Temperature	-40°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

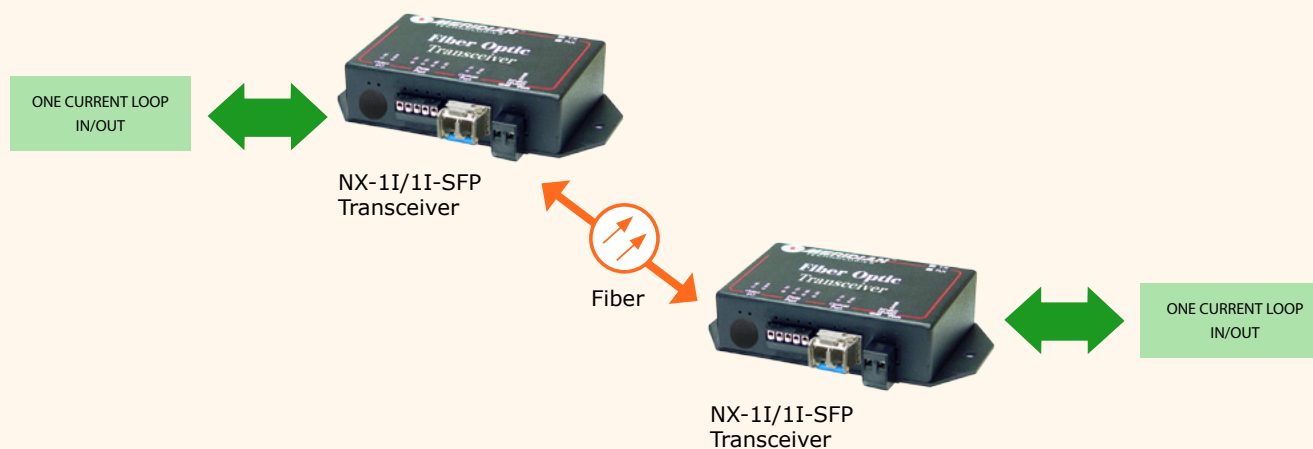
Quality

MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:



* measured @ max. optical budget ** Due to variations of drivers and diagnostic options, power shown @ max value



SFP OPTIONS:

The SFP series products are available for both singlemode and multimode fiber applications and either one or two fiber versions. Recommended optical speed for this product is 155 Mb/s.

For more specifications on a SFP optical devices go to [SFP data sheet](#) or go to:

WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES

Common SFP modules		
Part #	Fiber type	# of Fibers
MM1313F2	Multimode	2
MM1315F2 & MM1513F2	Multimode	1
SM1313F20	Single-mode	2
SM1315F20 & SM1515F20	Single-mode	1

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