NS-200WDM Series

10/100Base-TX Ethernet to 100Base-FX
WDM Single Strand Fiber Optic Converters



Introduction:

Using the fiber optic medium for Ethernet applications has become more popular due to fiber optic's excellent physical features, especially for long distance networks. However, fiber optic cable is very expensive, so if we can apply a solution that uses only 1 cable instead of 2, the infrastructure cost can be cut in half. The NS-200WDM Series provides a solution that reduces your expense by 50%!

The NS-200WDM Series of Single-Strand Fiber Converters supports Wavelength Division Multiplexing (WDM) technology that allows two independent data communication channels to transmit and receive over one standard, single mode, and fiber optic line. This not only doubles your existing bandwidth, but also effectively reduces the cost of creating a new fiber optic infrastructure.

50% Cost Saving for Fiber Optic Infrastructures
With a pair of NS-200WDM series products (NS-200WDM-A and NS-200WDM-B), you can double the utilization of your existing, costly fiber optic cable, and save 50% of the cost of a newly installed fiber optic application.

It contains "soft start" function with overload protection, high-low voltage protection.

The width of the NS-200WDM is just 32mm, so it can be used where space is important.

Features:

- Automatic MDI / MDI-X crossover for plug-and-play
- Supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x flow control
- Power Input, +12 ~ +48 VDC
- Supports operating temperatures from 0 ℃ ~ +70 ℃
- DIN-Rail

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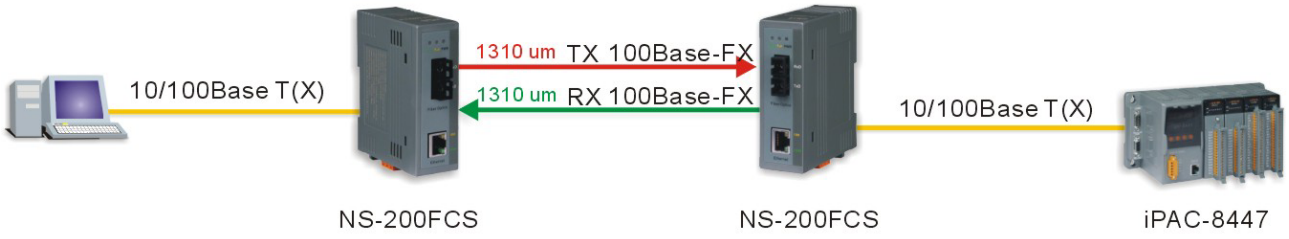
Specifications:

- Compatibility : IEEE 802.3, IEEE802.3u, IEEE802.3x
- Interface : 10/100 Base-T(X) and 100 Base-FX
  Ethernet Port : 10/100 Mbps x 1
  Fiber Optic Port : 100 Mbps x 1 (SC Connector; Single-mode)
- LED Indicators : Power, LNK/ACT, 10/100M, FDX(Fiber Port)
- Single mode fiber cables: 8.3/125, 8.7/125, 9/125 or 10/125 μm
  Distance: 15km (9/125 μm recommended) for full duplex.
  Wavelength: TX: 1310, RX: 1550 nm for NS-200WDM-A; TX: 1550, RX: 1310 nm for NS-200WDM-B
  Min. TX Output: -14 dBm
  Max. TX Output: -8 dBm
  Sensitivity: -31 dBm Max.
- Ethernet Cables:
  10 Base-T (Cat.3, 4, 5 UTP cable; 100m Max.)
  100 Base-TX (Cat.5 UTP cable; 100m Max.)
- Environment :
  Operating temperature : 0 °C~ +70°C
  Storage Temperature : -20 ~ +85°C
  Relative Humidity : 10% ~ 90% non-condensing
- Dimensions : 32 x 107 x 89.5 mm (W x H x D)
- Power requirements : +12 ~ 48 VDC (Removable Terminal Block)
- Power consumption : 0.12A@24VDC (+/- 5%, arrowed)

Application Note:

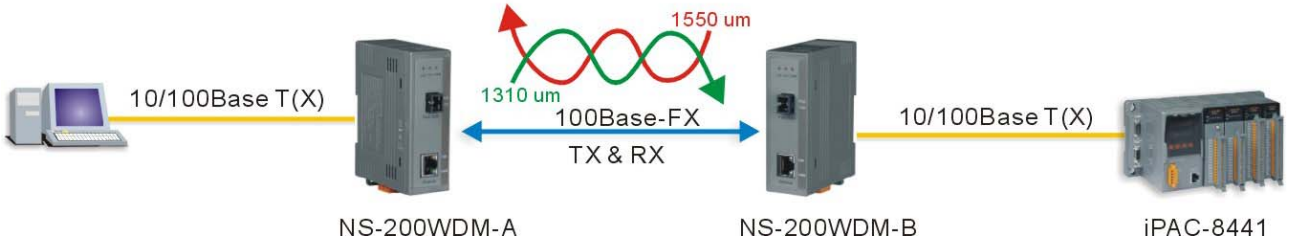
General Media Converter Solution

A general media converter requires a pair of fiber optic cables for data transmission and receiving.



Single-Strand Fiber Converter Solution

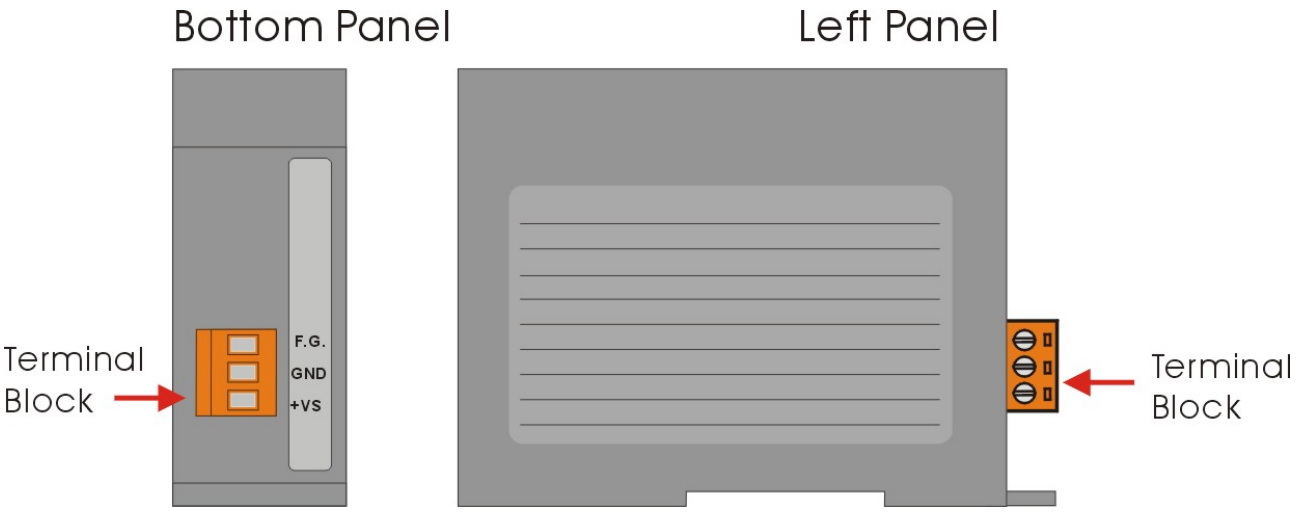
Wavelength Division Multiplexing (WDM) supports bi-directional data transmission and receiving using dual wavelengths (1310/1550 nm) over a single strand, of single-mode optical fiber.



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Checking Power:

Since the NS-200WDM consumes 2.9W Max, ensure that your power supply is able to meets this demand. The Input voltage range is between +12 and +48 VDC.
External power supply is connected using the removable terminal block as shown below:



Pin Function For Terminal Block:

External power supply is connected using the removable terminal block:

+Vs : Power input +12 ~ +48 VDC

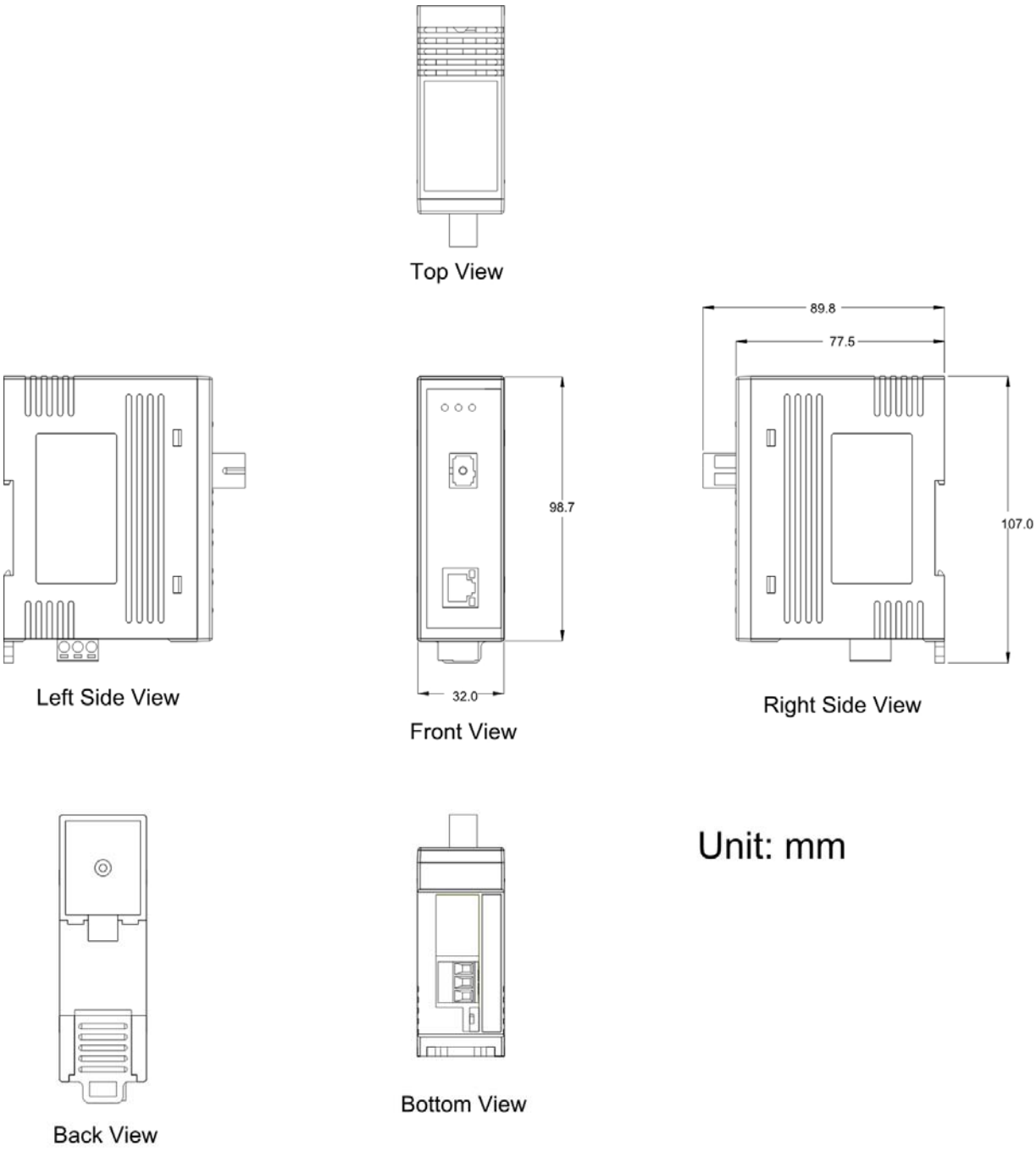
GND: Ground

F.G : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.

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Dimensions:

The width of the NS-200WDM is just 32 mm, so it can be used where space is important.



Ordering Information:

NS-200WDM-A CR	10/100BaseT(X) to 100BaseFX Single-Strand Media Converter, TX 1310 nm, RX 1550 nm, SC (RoHS)
NS-200WDM-B CR	10/100BaseT(X) to 100BaseFX Single-Strand Media Converter, TX 1550 nm, RX 1310 nm, SC (RoHS)

Important Note: You must purchase both **NS-200WDM-A** and **NS-200WDM-B** since these products work as a pair.

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