Fibre Media Converter

User Manual

User Manual

infrastone®

Introduction

Fiber media converter can be operated stably and reliably in harsh environment. Solid case design and easy installation are the two main features of it. Lightweight DIN-Rail takes the place of heavy rack case, so that it can save space, and also it is good for heat dissipation. Moreover, its smaller volume and lighter weight can reduce freight cost greatly.

Features

- Multi mode and single mode models with SC LC ST fiber connectors are available
- Operating temperature range from -20°C~+70°C
- Supports Link Fault Pass-Through (LFP)
- Supports Far End Fault
- Plastic,Ip30 protection
- DIN-Rail mountable
- Supports AUTO-MDI-MDIX
- 10/100M Media Converter Support LFP (Link Fault Pass)

Specifications

Technical Specifications

	100BaseFX	1000BaseFX
Protocol Standard	IEEE802.3,802.3u,802.3x	
RJ 45 Port	10/100 BaseT(X)	10/100/1000 BaseT(X)
Wave Length	850nm/1310nm/1550nm	
Fiber Port	100BaseFX	1000BaseFX

Optical Fiber

	100BaseFX		1000BaseFX	
	Multi-mode	Single-mode	Multi-mode	Single-mode
Distance	2km,1310nm	25km,1310nm	500m,850nm	25km,1310nm
Max.	-20dBm	-10dBm	-10dBm	-10dBm
Min.	-14dBm	-3dBm	-3dBm	-3dBm
Sensitivity	<-18dBm	<-30dBm	<-18dBm	<-22dBm

Power Requirements and Environmental Limits

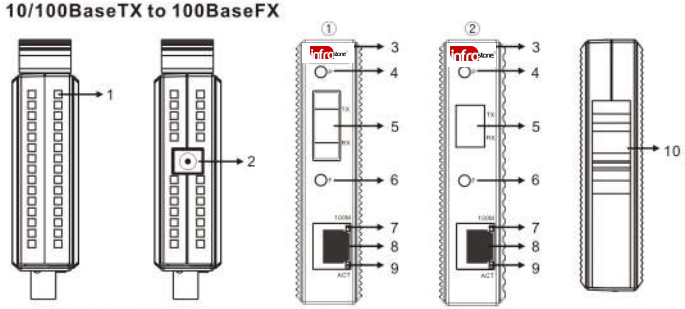
	100BaseFX	1000BaseFX
Input Voltage	5V	
Power	5W	
Operating Temperature	-20℃~+70℃	
Storage Temperature	-40℃~+85℃	
Ambient Relative Humidity	5~95%(non-condensing)	

Other

	100BaseFX	1000BaseFX
Housing	Plastic,Ip30 protection	
Dimensions	100x86x25mm	
Weight	98g	
Out carton Dimensions	215x120x58mm	
Out carton Weight	190g	
Installation	DIN-Rail mounting	

Panel Layout and Mounting Dimensions

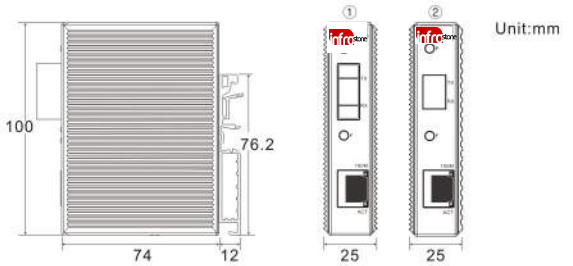
10/100BaseTX to 100BaseFX



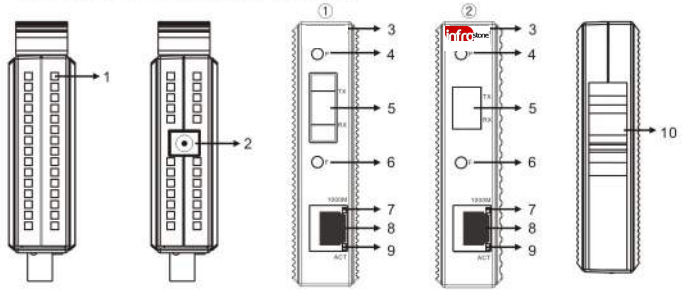
1.Heat dissipation orifices
2.Power port
3. logo
4.Power input LED

5.100BaseFX
(① 1x9 Fiber Transceiver;
② SFP Fiber Transceiver)
6.FX Link/ACT LED

7.TP port's 100 Mbps LED
8.10/100BaseT(X) port
9.TP port's ACT LED
10.DIN-Rail kit



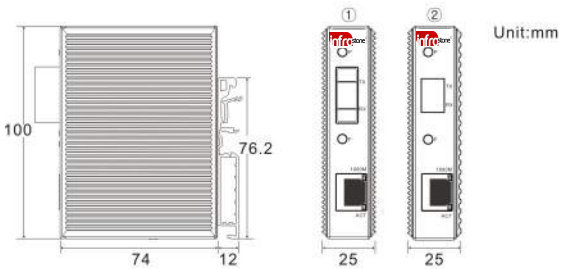
10/100/1000BaseTX to 1000BaseFX



1.Heat dissipation orifices
2.Power port
3. logo
4.Power input LED

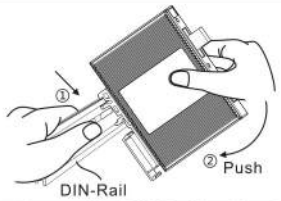
5.1000BaseFX
(① 1x9 Fiber Transceiver;
② SFP Fiber Transceiver)
6.FX Link/ACT LED

7.TP port's 1000 Mbps LED
8.10/100/1000BaseT(X) port
9.TP port's ACT LED
10.DIN-Rail kit

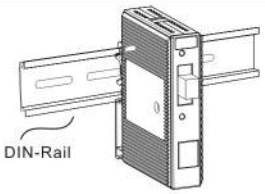


DIN-Rail Mounting

Installation

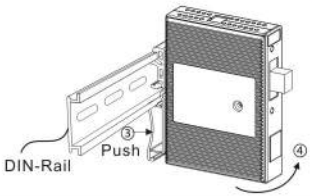


Insert the top of the DIN- Rail into the slot (Position ①), then press as the direction indicated by arrow ②.

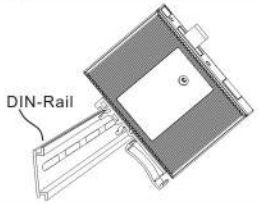


The DIN-Rail attachment (Buckle) will snap DIN-Rail at the right position.

Dismantling



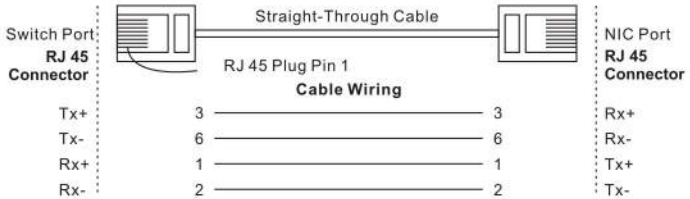
To remove fiber media converter from the DIN-rail,lightly press the below parts of DIN-Rail attachment (Position ③),then pull it as the direction indicated by arrow ④.



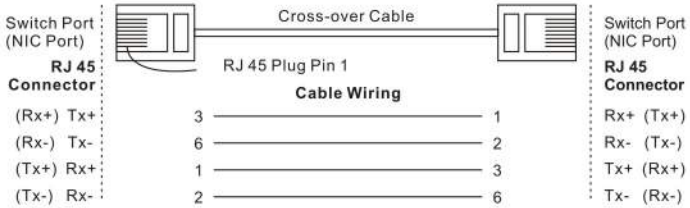
Detach fiber media converter from DIN-Rail.

Communication Connections

RJ 45 (8-pin) to RJ45 (8-pin) Straight-Through Cable Wiring

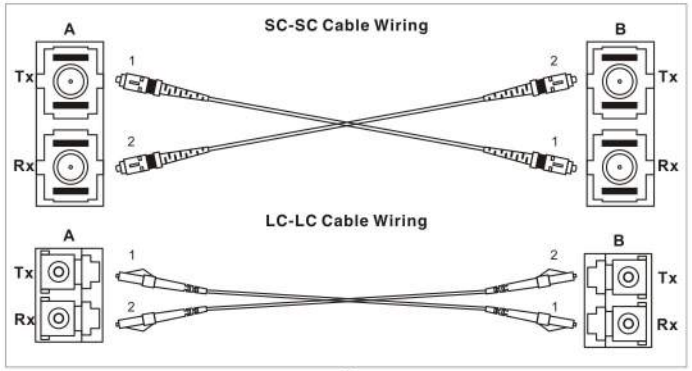


RJ 45 (8-pin) to RJ45 (8-pin) Cross-over Cable Wiring



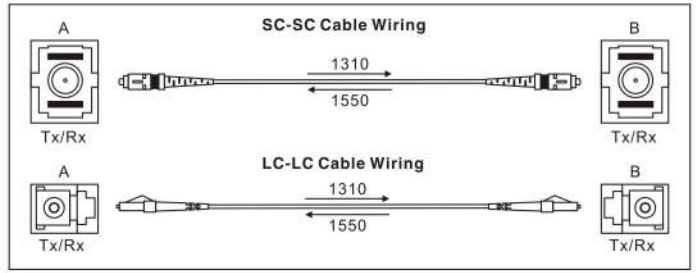
Fiber Optical Port Connection

Figure ①,Duplex fiber media converter connection way. "Tx" is fiber module's transmitting port, while"RX" is fiber module's receiving port. "A" fiber media converter's transmitting port(TX)should be connected with"B"fiber media converter's receiving port (RX), at the same time,"A" fiber media converter's receiving port(RX)should be connected with"B" fiber media converter's transmitting port(TX).



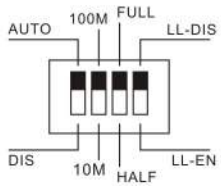
①

Figure ②Simplex fiber media converter connection way. "A"fiber media converter's fiber terminal port should be connected with"B"fiber media converter's fiber terminal port.



②

10/100M Media Converter Support LFP (Link Fault Pass)



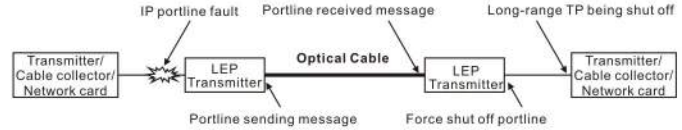
Speed switch setting explanation

Switch gear	Function Indicated	Remark
AUTO	Using 10/100M auto-adaptation	Factory acquiescence
DIS	Turn off 10/100M auto-adaptation	/
100M	Fixing 100M speed	Should be effective with choosing "DIS" gear
10M	Fixing 10M speed	
FULL	Fixing Full Duplex	
HALF	Fixing Half Duplex	
LL-DIS	Turn off link alarm function	Factory acquiescence
LL-EN	Using link alarm function	/
Note: Should electrify fiber media converter after changing switch gear every time, or else useless.		

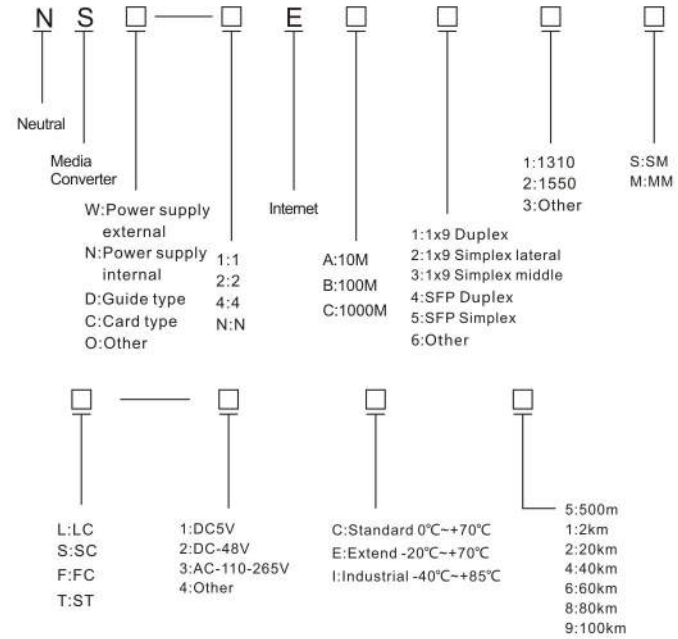
Note: Factory acquiescence is fiber media converter works at auto-adaptation, which means the switch is at"AUTO 100M FULL LL-DIS".

LFP(Link Fault Pass) Function Explanation

On the condition of using LFP, electrical interface abnormity will be transmitted to fiber interface, Below diagram shows the LFP working progress:
When electrical interface on local side converter occurs abnormal condition (1), fiber interface will send one"non-idle"signa to notice fiber interface on remote end converter (2), hence it gets the signal of link abnormity (3), then remote end converter force to close electrical interface (4), following the indicator on switcher or network card which link to formal electrical interface goes out (5).Basic on this mechanism, converter can reflect electrical interface abnormal condition of local side to terminal converter one, then alarm it by indicator.



Fiber Media Converter name rule



Note: Need to specify power supply when require for European type, American type, and British type.

Example: NSD-1EB11SS-1C2

It is the part number of neutral DIN-guide rail type with 1x9 single mode duplex fiber module, SC fiber connector,10/100M fiber media converter, centra wavelength 1310nm,working voltage DC/5V, working temperature is commercial grade 0℃~+70℃. Transmission distance is 20km.

infrastone®

www.infrastone.com

WI,USA