Industrial Ethernet Media Converter
Hardware Installation Guide
P/N：NMC-210

Introduction:

NMC-210 serial is a speediness 10/100Base-TX Industrial Ethernet Media Converter, easy to connect server, repeater, switch, device to device,Can satisfy customers require for long distance, high speed, wide broadcast.

Beside this, NMC-210 support electric working mode/rate setting, LFP, DIP switch outside, plug and play.

NMC-210 series supports 1 TP ports and 1 fiber ports. TP(RJ45) support 10/100Base-T(X), Full/Half duplex mode, and auto MDI/MDI-X connection;100BaseFX supports single-/muti-mode,SC/ST connector for optional.

NMC-210 series adopt industry standard design, IP30 protection, rugged high-strength metal case, power supply input(12V～36VDC), -40 to 75°C working temperature.

Packing List:

The NMC-210 serial Media Converter is shipped with following items.

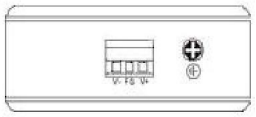
1. Media Converter NMC-210 (plus terminal block)×1
2. Hardware Installation Guide ×1
3. Product Warranty Statement ×1
4. DIN-Rail setting fittings(wall mounting for optional)

Features:

1. IEEE802.3/802.3u/802.3x,store and forward
2. 10/100M,F/H duplex，MDI/MDI-X auto negotiation
3. Power input:12V～36VDC
4. Designed for industrial applications. IP30 protection, rugged high-strength metal case

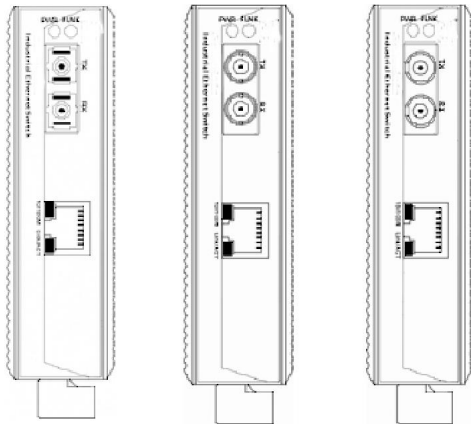
Panel Layout:

Top panel



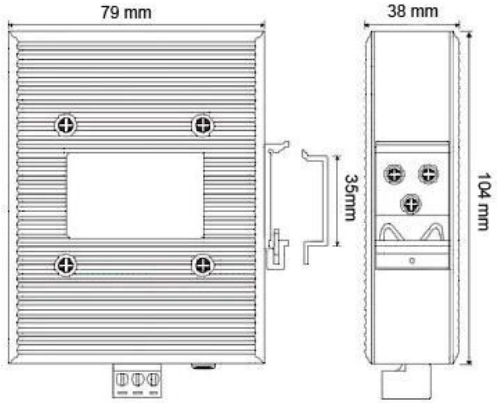
Power input
（Bottom panel）

Front panel



SC ST FC

Units(mm)

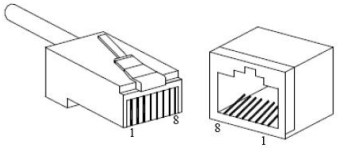


Communication Connector:

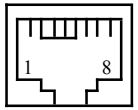
NMC-210 serial have 1 10/100BaseT(X) Ethernet ports(RJ45) and 1 100BaseFX (SC/ST type connector) fiber ports.

10/100BaseT(X)Ethernet port

The pinout of RJ45 port display as below, connect by UTP or STP. The connect distance is no more than 100m. 100Mbps is used 100Ω of UTP 5 , 10Mbps is used 100Ω of UTP 3,4,5.



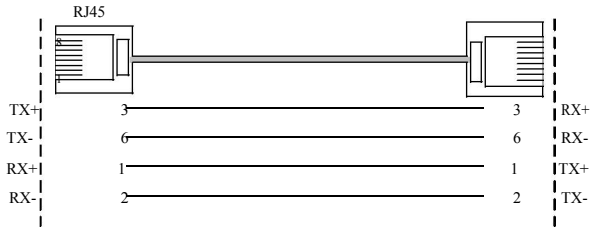
RJ45 port support automatic MDI/MDI-X operation. Can connect the PC, Server, Converter and HUB .Pin 1,2,3,6Corresponding connection in MDI. 1→3,2→6,3→1，6→2 are used as cross wiring in the MDI-X port of Converter and HUB. . 10Base-T/100Base-TX are used in MDI/MDI-X, the define of Pin in the table as below.



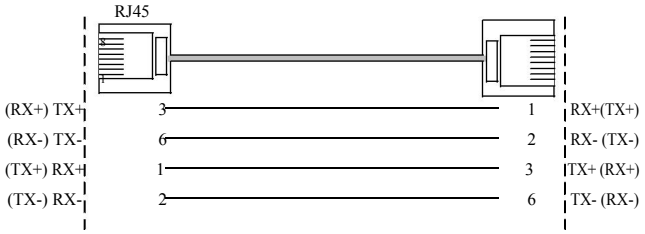
No.	MDI Signal	MDI-X Signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4、5、7、8	—	—

Note: “TX±”transmit data±, “RX±”receive data±, “—”not use

MDI(straight-through cable)



MDI-X Cross over cable)

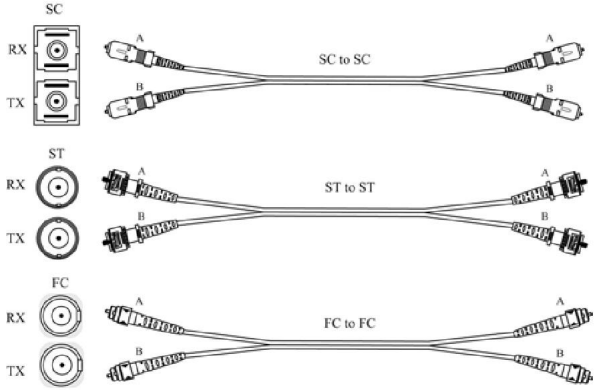


100BaseFX port

100Base-FX full-duplex SM or MM port , SC/ST type .The fiber port must be used in pair, TX (transmit) port connect remote switch's RX(receive) port; RX(receive) port connect remote switch's TX(transmit) port.

The optical fiber connection supports the line to instruct enhance the reliability of network effectively.

Suppose: If you make your own cable, we suggest labeling the two sides of the same line with the same letter (A-to-A and B-to-B, shown as below, or A1-to-A2 and B1-to-B2).



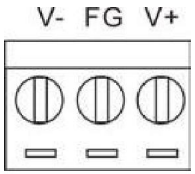
LED Indicator

LED indictor light on the front panel of LUT210W Series .The function of each LED is described in the table as below.

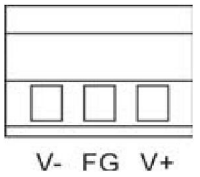
LED	Indicate	Description
PWR	ON	Connect to power
	OFF	No power
	OFF	
FLINK (Optic port indicator)	ON	Connect
	OFF	No-Connect
	Glitter	Have data transfer
10/100M (Yellow)	ON	100Base-TX
	OFF	10Base-T
Link/ACT (Green)	ON	Establish effective network connect
	Glitter	Circulate network
	Glitter	No connect on network

Power contact:

NMC-210 serial support 3 bits industrial terminal block(V-,FG,V+) for bottom panel, V-,V+ for 12VDC～36VDC input, link the device shell with FG.



Top View



Front View

Installation：

Before installation, confirm that the work environment meet the installation require, including the power needs and abundant space. whether it is close to the connection equipment and other requirements are prepared or not.

Installation require require require as below

1. Avoid in the sunshine, keep away from the heat fountainhead or the area where in intense EMI.
2. Examine the cables and plugs that installation requirements.
3. Examine whether the cables be seemly or not (less than 100m) according to reasonable scheme.
4. Screw, nut, tool provide by yourself.
5. Power need: 24VDC(12VDC~36VDC)
6. Environment: -40 to 75°C

Storage Temperature: -45°C to 85°C

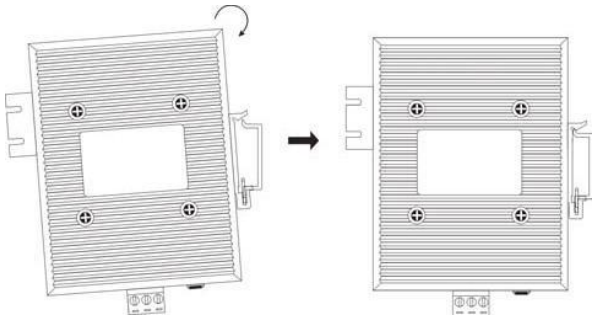
Relative humidity 10% to 95%

DIN-Rail Installation

In order to use in industrial environments expediently, NMC-210 serial adopt 35mm DIN-Rail installation, the installation steps as

follows:

1. Examine the DIN-Rail attachment
2. Examine DIN Rail whether be firm and the position be suitability or not .
3. Insert the top of the DIN-Rail into the slot just below the stiff metal spring.
4. The DIN-Rail attachment unit will insert into place as shown as below.



Wiring requirements:

Be sure to disconnect the power cord before installing and/or wiring our Ethernet Switch.

Calculate the maximum possible current in each power wire and ommon wire. Observe all electrical codes dictating the maximum current allowable for each wire size. If the current goes above the maximum ratings, the wiring could overheat may causing serious damage to your equipment. You should also pay attention to the following items:

1. Use separate path to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.
2. NOTE: Do not run signal or communications wiring and power wiring in the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.
3. You can use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring that shares similar electrical characteristics can be bundled together.
4. Keep input and output wiring separated. It is strongly advised that you label wiring to all devices in the system when necessary.

Specifications:

Interface

Standards: IEEE802.3, IEEE802.3x, IEEE802.3u

RJ45 Ports: 10/100BaseT(X) auto connection, F /H duplex or force work mode, and support MDI/MDI-X connection

Fiber Ports: 100BaseFX ports (SC/ST connector, optional)

Single-mode: 20, 40,60, 80, 120Km,optional

Multi-mode: 2,5Km,optional

Wavelength: 850nm, 1310 nm, 1550nm

Power

Input Voltage: 24VDC (12VDC~36VDC)

Opposite connection protection

Mechanical

Dimensions: 104mm×79mm×38mm (H×W×D)

Casing: IP30 protection, Metal case

Installation: DIN-Rail, Wall Mounting

Weight: 450g

Environmental

Operating Temperature: -40 to 75°C

Storage Temperature: -45 to 85 °C

Ambient Relative Humidity: 10% to 95% (non-condensing)

Approvals

EMI：FCC Part 15, CISPR (EN55022) class A EMS: EN61000-4-2(ESD), level 4 EN61000-4-3(RS), level 3 EN61000-4-4(EFT) , level 4 EN61000-4-5 (Surge), level 4 EN61000-4-6 (CS), level 3 EN61000-4-8, level 5

Shock: IEC 60068-2-27 PASS

Free Fall: IEC 60068-2-32 PASS

Vibration: IEC 60068-2-6

PASS Warranty:3 years

Order Information

Type	Fiber Type	Wavelength (nm)	Fiber Length (Km)
NMC-210-S1	SM	1310	20
NMC-210-S2	SM	1310	40
NMC-210-S3	SM	1310	60
NMC-210-S4	SM	1550 DFB LD	100
NMC-210-S5	MM	1310/850	2