

Schneider Series Service Manual

140NRP31200

1. Description

The 140NRP31200, available from Schneider Electric in the Modicon series, serves as a versatile Ethernet fiber converter. This device operates with multi mode fiber optics at a wavelength of 1310 nm, making it suitable for various communication applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Ethernet Fiber Converter
Product	Line Modicon
Part	Number 140NRP31200
EAN	3595864179216
Weight	1.00 lbs (0.45 kg)
Optic	Fiber Type Multi mode
Wavelength	1310 nm
Power	Dissipation 5 W
Inrush	Current 1 Amp at 5 Volts DC
Bus	Current 1000 mA
Fiber	Ports 2
Fiber	Connector LC
Ethernet	Ports 2
Ethernet	Interface RJ-45
Receiver	Sensitivity -30 dBm
Distance	Between 2 Transceivers 2000/3000 m
Marking	CE

3. Product Information

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Technical specifications for 140NRP31200

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Fiber Ports 2

Fiber Connector LC

Ethernet Ports 2

Ethernet Interface RJ-45

Receiver Sensitivity -30 dBm

Distance Between 2 Transceivers 2000/3000 m

Marking CE

Description

Schneider Electric's 140NRP31200 is an Ethernet fiber converter optimized for effective data transmission. This model features multi mode optical fiber capability, operating at a wavelength of 1310 nm. Its input power requirement does not exceed 5 watts, while the inrush current measures 1 Amp at 5 Volts DC, which allows it to integrate smoothly into existing systems.

Equipped with two fiber ports utilizing LC connectors, the module enables robust link connections. It also provides two Ethernet ports with RJ-45 interfaces, accommodating a wide range of network configurations. Signal reception is quite effective, with a sensitivity rating of -30 dBm, suitable for low-loss operation.

One key aspect of this converter is its ability to maintain effective communication over long distances, supporting transceiver separation of up to 2000 or 3000 meters. With a bus current rating of 1000 mA, it ensures reliability for active network segments. Compact in size, it measures 250 mm in length, 40 mm in width, and 103 mm in height, weighing 0.554 kg, positioning it as an efficient solution for space-sensitive installations.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Fibre converter

Optic fiber type

Multi mode

Complementary

Bus current requirement

1000 mA

Power dissipation in W

5 W

Inrush current

1 A at 5 V DC

Number of Port

2 fiber optic LC

2 ETHERNET RJ45

Local signalling

1 LED green RDY module status

1 LED red ERR internal fault, module failure

1 LED green STS1 channel 1 link status

1 LED green FX1 ACT channel 1 communication status

1 LED green STS2 channel 2 link status

1 LED green FX2 ACT channel 2 communication status

Wavelength

0.000051575 in (1310 nm)

Optic distance between 2 transceivers

6561.7 ft (2000 m) 50/125 µm)-23.5...-14 dBm

9842.5 ft (3000 m) 62.5/125 µm)-20...-14 dBm

Attenuation

-23.5...-14 dB 50/125 µm)

-20...-14 dB 62.5/125 µm)

Rise/fall time

3 ns

Receiver Sensitivity

- 30 dBm

Detected silence

-45 dBm

Marking

CE

Material

PC (polycarbonate)

Width

1.59 in (40.34 mm)

Height

9.8 in (250 mm)

Depth

4.09 in (103.85 mm)

Net Weight

1.221 lb(US) (0.554 kg)

Environment

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Ambient Air Temperature for Storage

-40...185 °F (-40...85 °C)

Relative humidity

0...95 %

Operating altitude

0...6561.68 ft (0...2000 m)

Standards

CSA C22.2 No 142

FM Class 1 Division 2

UL 508

Product Certifications

C-tick

TÜV

Merchant Navy