

Schneider Series Service Manual

140NOM25200C

1. Description

The 140NOM25200C by Schneider Electric is a DIO head-end adapter designed for the Modicon Quantum series. It features dual interfaces: one for Modbus fiber and another for Modbus RS-232, enabling efficient communication capabilities.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type DIO head-end adaptor
Product	Line Modicon Quantum
Part	Number 140NOM25200C
EAN	3595861136984
Interfaces	1 Modbus fiber, 1 Modbus RS-232
Transmission	Rate 1 Mbps
I/O	Words 30 I/32 O
Power	Dissipation 4 W
Minimum	Pulse Width Distortion/Jitter 5 ns
Rise/Fall	Time 20 ns
Dynamic	Range 20 dB
Bus	Current Requirement 750 mA
Standards	UL 508
Ambient	Temperature 0 to 60 °C
Sensitivity	Scale > 30 dBm
Detected	Silence -36 dBm

3. Product Information

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Technical specifications for 140NOM25200C

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Description

The 140NOM25200C model serves as a digital input/output head-end adapter within Schneider Electric's Modicon Quantum series. This component is engineered with dual communication interfaces: a Modbus fiber interface and an RS-232 Modbus interface, both facilitating robust data transmission at an effective rate of 1 Mbps. The configuration supports 30 input words and 32 output words, providing substantial flexibility for I/O operations.

Power requirements for this adaptor are rated at a dissipation of 4 watts and a bus current draw of 750 mA, essential for performance stability. The device maintains a minimum pulse width distortion and jitter of just 5 nanoseconds, ensuring signal integrity during communication. Additionally, it features a rise and fall time of 20 nanoseconds, optimizing response times in dynamic applications.

In terms of performance metrics, the dynamic range of this head-end adapter is specified at 20 dB. It also operates effectively within an ambient temperature range of 0 °C to 60 °C, making it well-suited for industrial environments. This model adheres to UL 508 standards, demonstrating compliance with safety requirements. Its sensitivity scale exceeds 30 dBm, allowing for reliable performance in a range of operational settings. Furthermore, the detected silence threshold is set at -36 dBm, enhancing its capability in noise-sensitive applications.

Range of Product

Modicon Quantum automation platform

Product or Component Type

DIO head-end adaptor

Complementary

Number of port

1 Modbus Plus fiber optic single copper

1 Modbus RS232 twisted pair

Transmission Rate

1 Mbit/s

Electrical connection

1 connector RJ45

2 connectors TX/RX

I/O words

30 I/32 O

Checks

RAM

Checksum

Processor

RAM address

Power dissipation in W

4 W

Minimum pulse width distortion/jitter

5 ns

Wavelength

0.000032284 in (820 nm)

Power loss budget

11 dB 62.5/125 µm

16.5 dB 100/140 μm

6.5 dB 50/125 μm

Optical transmission

-16....-9 dBm 100/140 μm

-19.8....-12.8 dBm 50/125 μm

-3.5...110.5 dBm 62.5/125 μm

Rise/fall time

20 ns

Dynamic range

20 dB

Detected silence

-36 dBm

Sensitivity scale

> 30 dBm

Bus current requirement

750 mA

Environment

Resistance to electrostatic discharge

4 kV contact IEC 801-2

8 kV on air IEC 801-2

Resistance to electromagnetic fields

9.1 V/m (10 V/m) 80...2000 MHz IEC 801-3

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Ambient Air Temperature for Storage

-40...185 °F (-40...85 °C)

Relative Humidity

95 % without condensation

Operating altitude

<= 16404.2 ft (5000 m)

Protective treatment

Conformal coating Humiseal 1A33

Standards

UL 508

Product Certifications

RINA

RMRS

DNV

GOST

GL

CSA Class 1 Division 2

C-tick

Ordering and shipping details

Category

US1PC2118150

Discount Schedule

PC21

GTIN

3595861136984

Returnability

No

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

2.0 in (5.0 cm)

Package 1 Width

6.5 in (16.5 cm)

Package 1 Length

12.4 in (31.5 cm)

Package weight(Lbs)

18.02 oz (511.0 g)