

Schneider Series Service Manual

140CRP93100C

1. Description

The 140CRP93100C is a Remote I/O head module from Schneider Electric's Modicon Quantum series, designed for effective communication in industrial applications. Featuring a fiber optic port, it ensures data transmission at rates up to 2.5 Mbps with a maximum connection distance of 500 meters, accommodating both daisy chain and star topologies for versatile installation options.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Line Modicon Quantum
Part	Number 140CRP93100C
UPC	785901169901
Name	of Product Remote I/O Head Module
Communication	Port 1x Fiber Optic Port
Data	Transmission Rate 2.5 Mbps
Connection	Distance Max 500 meters via Fiber Optic
Supported	Topology Daisy Chain, Star Topology
Mounting	Backplane Slot
Power	Consumption 5.4 W
Operating	Voltage 5 VDC (via Backplane)
Protection	Class IP20
Storage	Temperature -40 °C to 85 °C
Relative	Humidity 5% to 95% non-condensing
Operating	Temperature 0 °C to 60 °C

3. Product Information

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Technical specifications for 140CRP93100C

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Operating Temperature 0 °C to 60 °C

Description

Schneider Electric's 140CRP93100C serves as a Remote I/O head module within the Modicon Quantum lineup. It utilizes a single fiber optic port to enable swift data exchanges with a rate of up to 2.5 Mbps. This feature facilitates reliable connections over distances reaching a maximum of 500 meters, effectively supporting both daisy chain and star topology configurations.

The module is mounted on a backplane slot and operates on a 5 VDC power supply sourced from the backplane. With a power consumption of approximately 5.4 watts, it is energy-efficient while fulfilling its communication role. This unit is classified under protection class IP20, indicating its suitability for indoor environments not directly exposed to dust or moisture.

Operational temperature conditions for the 140CRP93100C range from 0 °C to 60 °C, ensuring dependable functionality in typical industrial settings. Moreover, it can endure a broader storage temperature spectrum from -40 °C to 85 °C, making it resilient to extreme conditions during non-operational periods. Relative humidity tolerances extend from 5% to 95%, ensuring that it can function reliably in various humidity conditions without fear of condensation affecting performance.

Range of Product

Modicon Quantum automation platform

Product or Component Type

RIO head-end adaptor module

Complementary

Product Compatibility

Quantum 200/500/800 series

Symax (any mix)

Maximum drops/network

31

I/O words/drop

64 I/64 O

Type of cable

75 Ohm coaxial

Transmission Rate

1544 Mbit/s

Dynamic range

35 dB

Isolation voltage

500 V DC coaxial center and ground

Electrical connection

1 female connector F, elbowed with single cable

Diagnostics startup

LAN controller check

Memory check

Power up

Power dissipation in W

3 W 1 channel

Marking

CE

Bus current requirement

600 mA 1 channel

Module format

Standard

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product Certifications

FM Class 1 Division 2

Standards

CSA C22.2 No 142

CUL

UL 508

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...1000 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)

Ordering and shipping details

Category

US1PC2118155

Discount Schedule

PC21

GTIN

3595861136281

Returnability

No

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

1.8 in (4.5 cm)

Package 1 Width

6.7 in (17.0 cm)

Package 1 Length

12.2 in (31.0 cm)

Package weight(Lbs)

18.3 oz (520.0 g)