

Schneider Series Service Manual

140EIA92100C

1. Description

The 140EIA92100C module from Schneider Electric is a master module used within the AS interface standards, particularly version V1. With a maximum cycle time of just 5 milliseconds, it efficiently handles various automation tasks.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type AS interface master module
Product	Line Modicon Quantum
Part	Number 140EIA92100C
AS-i	Version V1
Addressing	Standard
Maximum	Cycle Time 5 ms
Discrete	Inputs 124
Discrete	Outputs 124
Server	Devices 31
Transmission	Rate 167 kbit/s
Reverse	Polarity Protection Internal
Current	Consumption <= 100 mA
Marking	CE
Protection	Class IP20
Ambient	Temperature 0 to 60 °C

3. Product Information

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Technical specifications for 140EIA92100C	
Manufacturer Schneider Electric	
Product Type AS interface master module	
Product Line Modicon Quantum	
Part Number 140EIA92100C	
AS-i Version V1	
Addressing Standard	
Maximum Cycle Time 5 ms	
Discrete Inputs 124	
Discrete Outputs 124	
Server Devices 31	
Transmission Rate 167 kbit/s	
Reverse Polarity Protection Internal	
Current Consumption <= 100 mA	
Marking CE	
Protection Class IP20	
Ambient Temperature 0 to 60 °C	
Description	
The Schneider Electric 140EIA92100C is an AS interface master module utilized specifically within the Modicon Quantum series. This powerful device is aligned with AS-i version V1 and supports standardized addressing. It is capable of processing discrete inputs and outputs, with a total of 124 channels available for each function. Efficiency is a key feature, as the module boasts a rapid maximum cycle time of 5 milliseconds, enabling it to effectively manage data exchanges in real-time applications. The 140EIA92100C can communicate with up to 31 server devices, enhancing its versatility within complex setups. Transmission occurs at a rate of 167 kbit/s, ensuring a swift and efficient operation.	
Safety features include internal reverse polarity protection, providing an extra layer of security for the module's operation. This unit has a specified current consumption of no more than 100 mA, ensuring it remains energy-efficient while running. It carries the CE marking, indicating compliance with relevant European directives.	
At a weight of 0.45 kg, the module is relatively light and manageable. The design integrates protection class IP20, making it suitable for use in environments where dust exposure is limited. Operating conditions are optimal within a temperature range from 0 to 60 °C, catering to a wide array of industrial applications.	
Range of product	www.oilautotech.com
Modicon Quantum automation platform	
Product or component type	
AS-Interface master module	
Complementary	
Range compatibility	
AS-Interface cabling system	
AS-i version	
V1	
Actuator sensor interface profile [AS-i]	
M2	
Addressing	
Standard	
Maximum cycle time	
5 ms	
Bus length	
0...100 m without repeater	
Discrete input number	
124	
Discrete output number	
124	
Number of server device(s)	
31	
Number of module per PLC	
2 per Quantum PLC distributed drop	
4 per Quantum PLC local drop	
4 per Quantum PLC remote drop	
Supply	
Via AS-Interface line	
[Us] rated supply voltage	

30 V DC

AS-i cabling system cycle time

$156 \times (n + 1) \mu\text{s}$ with 31 slave(s)

$156 \times (n + 2) \mu\text{s}$

Transmission rate

167 kbit/s

Reverse polarity protection

Internal

Local signalling

32 LEDs for slave addresses and state of slave I/O bits

Electrical connection

1 male connector SUB-D 3 pins for AS-Interface link

Current consumption

$\leq 100 \text{ mA}$

Typical current consumption

60 mA 30 V DC

Marking

CE

Net weight

0.45 kg

Environment

IP degree of protection

IP20

Ambient air temperature for operation

0...60 °C

Product certifications

UL

FM

C-Tick

CSA

GOST

Packing Units

Unit Type of Package 1

PCE

Number of Units in Package 1

1

Package 1 Height

5.0 cm

Package 1 Width

16.5 cm

Package 1 Length

31.5 cm

Package 1 Weight

485.0 g

Unit Type of Package 2

S02

Number of Units in Package 2

2

Package 2 Height

15.0 cm

Package 2 Width

30.0 cm

Package 2 Length

40.0 cm

Package 2 Weight

1.396 kg

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