

Schneider Series Service Manual

171CCC78010

1. Description

The 171CCC78010 from Schneider Electric is a processor adapter module within the Modicon Momentum series. Designed for efficient communication, it utilizes the Modbus protocol and is capable of supporting a wide range of input and output operations.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type M1/M1E Processor Adapter Module
Product	Line Modicon Momentum
Part	Number 171CCC78010
Weight	1.00 lbs (0.45 kg)
Communication	Protocol Modbus protocol
Word	Length 16 bit
Discrete	Input/Output Processor Capacity 8,192 bits (maximum)
Memory	Type Flash memory and Random Access Memory (RAM)
Register	Input/Output Processor Capacity 26,048 words (maximum)
Clock	Frequency 32 megahertz
Number	of Communication Ports One non-isolated RS-232C port and one dedicated RS-485 Modbus port
Storage	Temperature -40 to 85°C (in a non-condensing environment)
Ambient	Operating Temperature 0 to 60°C (in a non-condensing environment)
Rated	Supply Voltage 5 Volts DC
Flash	Memory Capacity 512 kilobytes
RAM	Capacity 512 kilobytes
Scan	Time 1 millisecond per kilobyte

3. Product Information

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Technical specifications for 171CCC78010

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Ambient Operating Temperature 0 to 60°C (in a non-condensing environment)

Rated Supply Voltage 5 Volts DC

Flash Memory Capacity 512 kilobytes

RAM Capacity 512 kilobytes

Scan Time 1 millisecond per kilobyte

Description

The Modicon Momentum 171CCC78010, developed by Schneider Electric, is a processor adapter module that facilitates both discrete and register input/output operations. This unit operates effectively using the Modbus protocol, ensuring compatibility with various systems. It features a 16-bit word length, enabling standard data communication in industrial applications.

The device accommodates a maximum capacity of 8,192 bits for discrete input/output processing and can handle up to 26,048 words for register input/output. Powered by a clock frequency of 32 megahertz, this module performs efficiently in controlling various functions. It boasts two communication ports: one non-isolated RS-232C port and a dedicated RS-485 Modbus port for effective connection to other devices.

In terms of memory, the 171CCC78010 is equipped with both flash memory and RAM, each with a capacity of 512 kilobytes, providing ample storage for operational data. The scan time of 1 millisecond per kilobyte allows this module to process data rapidly, ensuring timely performance.

Operating in a non-condensing environment, the ambient temperature can range from 0 to 60°C, while storage conditions can extend from -40 to 85°C. The unit has a weight of 0.09 pounds (0.042 kilograms) and requires a 5 volts DC supply for operation, making it a lightweight and efficient option for various applications.

Range of Product

Modicon Momentum automation platform

Product or Component Type

M1/M1E processor adaptor

Software designation

Concept V2.6

Modsoft >= V2.5

ProWORX NxT V2.0

ProWORX 32

Communication Port Protocol

Modbus

Processor name

X 86 based (INTEL, AMD)

Clock frequency

32 MHz

Complementary

Discrete I/O processor capacity

8192 I/8192 O

Memory Type

512 KB flash

512 KB RAM

Memory description

Program memory 18 kB LL984

Program memory 240 kB IEC

Data 24 kB

Material

Lexan

Word length

16 bit

[Us] rated supply voltage

5.0 V DC +/-5 %

Supply

By Momentum I/O base

Exact time for 1 Kinstruction

1 ms

Register I/O processor capacity

26048 I/26048 O

I/O limit processor capacity

I/O local on Modbus

Number of port

1 RS232C non isolated

1 RS485

Marking

CE

Net Weight

0.093 lb(US) (0.042 kg)

Environment

Protective treatment

TC

Ambient Air Temperature for Operation

32...140 °F (0...60 °C)

Ambient Air Temperature for Storage

-40...185 °F (-40...85 °C)

Relative Humidity

5...96 % without condensation

Operating altitude

6561.68 ft (2000 m)

Shock resistance

<= 15 gn peak 11 ms half sine wave acceleration

Vibration resistance

0.75 mm d.a

1 gn

Product Certifications

Nema type 250

cUL

UL

FM Class 1 Division 2

Ordering and shipping details

Category

18206-MOMENTUM PROCESSORS,I/O BASES,CONN.

Discount Schedule

PC31

GTIN

3595860010711

Returnability

No

Country of origin

FR

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

2.2 in (5.5 cm)

Package 1 Width

7.09 in (18 cm)

Package 1 Length

10.2 in (26 cm)

Package weight(Lbs)

7.6 oz (215 g)