

Schneider Series Service Manual

140DDO35310C

1. Description

The Schneider Electric 140DDO35310C is a discrete output module from the Modicon Quantum series, featuring 32 output channels. This module operates under negative logic with a 24 V DC output voltage, providing reliable performance in various industrial applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Discrete Output Module
Product	Line Modicon Quantum
Part	Number 140DDO35310C
EAN	3595861137141
Output	Channels 32
Output	Type Negative logic (sink)
Addressing	Requirement 2 output words
Output	Voltage 24 V DC
Maximum	Leakage Current 0.4 mA
Surge	Current 5 A
Power	Dissipation 2.0 W + (0.4 V x total load current)
Marking	CE
Format	Standard
Bus	Current Requirement 330 mA
Ambient	Temperature 0 to 60 °C
Standards	UL 508, CSA
Protective	Treatment Conformal coating

3. Product Information

The Schneider Electric 140DDO35310C is a discrete output module from the Modicon Quantum series, featuring 32 output channels. This module operates under negative logic with a 24 V DC output voltage, providing reliable performance in various industrial applications.

Technical specifications for 140DDO35310C

Manufacturer Schneider Electric

Product Type Discrete Output Module

Product Line Modicon Quantum

Part Number 140DDO35310C

EAN 3595861137141

Output Channels 32

Output Type Negative logic (sink)

Addressing Requirement 2 output words

Output Voltage 24 V DC

Maximum Leakage Current 0.4 mA

Surge Current 5 A

Power Dissipation 2.0 W + (0.4 V x total load current)

Marking CE

Format Standard

Bus Current Requirement 330 mA

Ambient Temperature 0 to 60 °C

Standards UL 508, CSA

Protective Treatment Conformal coating

Description

The 140DDO35310C is a discrete output module featured in Schneider Electric's Modicon Quantum series, supporting 32 output channels. This module utilizes negative logic, functioning effectively as a sink. It requires an addressing scheme of 2 output words. Its output voltage is rated at 24 V DC, allowing for integration with various control systems. Significantly, the module has a maximum leakage current limit of 0.4 mA, ensuring low power loss. It also handles surge current up to 5 A, which is essential for handling transient loads. Power dissipation per module is calculated at 2.0 W in addition to 0.4 V multiplied by the total load current, contributing to efficient energy management. The 140DDO35310C is built in a standard format and weighs 0.45 kg. It has a bus current requirement of 330 mA. For reliable operation, it is designed for ambient temperatures ranging from 0 to 60 °C. Additionally, it is compliant with important standards such as UL 508 and CSA, signaling its robust design and application in industrial environments. A conformal coating is applied for added protection against environmental factors.

Range of Product

Modicon Quantum automation platform

Product or Component Type

Dc discrete output module

Discrete output number

32

Complementary

Group of channels

4 groups of 8

Discrete output logic

Negative logic (sink)

Addressing requirement

2 output words

Discrete output voltage

24 V DC

Output voltage limits

19.2...30 V

Absolute maximum output

50 V 1 s decaying pulse

Maximum voltage drop

<0.4 V 0.5 A

Maximum load current

16 A per module

4 A per group

Surge current

5 A 1 ms

Response Time

<= 1 ms at state 0 to state 1

<= 1 ms at state 1 to state 0

Maximum leakage current

0.4 mA 30 V

Load inductance

$\text{Inductance(H)} = 0.5 / ((\text{current(A)})^2 \times (\text{switching frequency(Hz)}))$

Maximum tungsten load

12 W 24 V

Fault indication

Loss of field power

Blown fuse

Associated fuse rating

3 A each point

5 A per group

Isolation between channels and bus

1780 Vrms DC for 1 minute

Isolation between group

500 Vrms DC for 1 minute

Protection Type

Internal output protection by 5 A fuse per group

Power dissipation

2.0 W + (0.4 V x total load current)

Marking

CE

Local signalling

1 LED (green) for bus communication is present (Active)

1 LED (red) for external fault detected (F)

32 LEDs (green) for input status

Bus current requirement

330 mA

Module format

Standard

Net Weight

0.99 lb(US) (0.45 kg)

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product Certifications

RMRS

GOST

C-tick

RINA

FM Class 1 Division 2

Standards

CSA C22.2 No 142

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...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)

Ordering and shipping details

Category

18155-QUANTUM I/O & POWER SUPPLIES

Discount Schedule

PC21

GTIN

3595861137141

Returnability

No

Country of origin

FR

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

6.4 in (16.3 cm)

Package 1 Width

1.8 in (4.5 cm)

Package 1 Length

12.3 in (31.2 cm)

Package weight(Lbs)

16.6 oz (470 g)