

# Schneider Series Service Manual

## 140DDO36400C

### 1. Description

The 140DDO36400C by Schneider Electric is designed as a DC discrete output module within the Modicon Quantum series. This compact device operates at a nominal output voltage of 24 V DC with a range permissible from 19.2 V to 30 V, making it versatile for various applications.

### 2. Specifications

| Specification | Value                             |
|---------------|-----------------------------------|
| Manufacturer  | Schneider Electric                |
| Product       | Line Modicon Quantum              |
| Part          | Number 140DDO36400C               |
| EAN           | 3595862015332                     |
| Product       | DC Discrete Output Module         |
| Group         | of Channels 6 groups of 16        |
| Discrete      | Output Voltage 24 V DC            |
| Output        | Voltage Limits 19.2 to 30 V       |
| Surge         | Current 2A                        |
| Max           | Leakage Current 1 mA at 24 V      |
| Power         | Dissipation 7W                    |
| Bus           | Current Requirement 250 mA        |
| Resistance    | to Electrostatic Discharge 4 kV   |
| Resistance    | to Electromagnetic Fields 9.1 V/m |
| Operating     | Altitude 5000 m                   |

### 3. Product Information

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Technical specifications for 140DDO36400C

Manufacturer Schneider Electric

Product Line Modicon Quantum

Part Number 140DDO36400C

EAN 3595862015332

Product DC Discrete Output Module

Group of Channels 6 groups of 16

Discrete Output Voltage 24 V DC

Output Voltage Limits 19.2 to 30 V

Surge Current 2A

Max Leakage Current 1 mA at 24 V

Power Dissipation 7W

Bus Current Requirement 250 mA

Resistance to Electrostatic Discharge 4 kV

Resistance to Electromagnetic Fields 9.1 V/m

Operating Altitude 5000 m

Description

The Schneider Electric 140DDO36400C serves as a DC discrete output module within the renowned Modicon Quantum series. It integrates six channel groups, with each group holding 16 discrete outputs. Operating at a standard output voltage of 24 V DC, it provides versatility within a voltage window of 19.2 V to 30 V. Users can expect a surge current capability of 2 A, ensuring it can handle temporary spikes effectively.

This module boasts a maximum leakage current of just 1 mA at 24 V, confirming its efficiency and safety during operation. With a power dissipation rated at 7 W, it efficiently manages its electrical consumption, while the bus current requirement is set at 250 mA, facilitating easy integration into various control systems.

Weighing only 0.45 kg, this unit is lightweight and easy to implement. Additionally, it offers a robust design with resistance to electrostatic discharge rated at 4 kV, ensuring reliability in electrically noisy environments. Operating effectively in electromagnetic fields up to 9.1 V/m provides further assurance of its performance validity. Designed to function at altitudes of up to 5000 meters, the 140DDO36400C meets diverse operational needs in various industrial conditions.

Range of product

Modicon Quantum automation platform

Product or component type

Dc discrete output module

Discrete output number

96

Complementary

Group of channels

6 groups of 16

Discrete output logic

Negative logic (sink)

Addressing requirement

6 output words

Discrete output voltage

24 V DC

Output voltage limits

19.2...30 V

Maximum voltage drop

<0.4 V 0.5 A

Maximum load current

<= 0.5 A each point

<= 19.2 A per module

<= 3.2 A each group

Surge current

2 A

Response time

<= 0.1 ms at state 0 to state 1

<= 0.1 ms at state 1 to state 0

Maximum leakage current

1 mA 24 V

Short-circuit protection

With

Output overload protection

With

Load inductance

$\text{Inductance(H)} = 0.5 / ((\text{current(A)})^2 \times (\text{switching frequency(Hz)}))$  0.5...4 Hz

Fault indication

Fault sensing

Loss of field power

Fault reporting

Fault point

Isolation between channels and bus

500 Vrms DC for 1 minute

Power dissipation

7 W

Marking

CE

Local signalling

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

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

96 LEDs (green) for input status

Bus current requirement

250 mA

Module format

Standard

Net weight

0.45 kg

Environment

Protective treatment

Conformal coating Humiseal 1A33

Product certifications

RMRS

C-Tick

GOST

FM Class 1 Division 2

Standards

CSA C22.2 No 142

UL 508

Resistance to electrostatic discharge

4 kV contact conforming to IEC 801-2

8 kV on air conforming to IEC 801-2

Resistance to electromagnetic fields

10 V/m 80...2000 MHz conforming to IEC 801-3

Ambient air temperature for operation

0...60 °C

Ambient air temperature for storage

-40...85 °C

Relative humidity

95 % without condensation

Operating altitude

<= 5000 m