

Schneider Series Service Manual

140DAI75300C

1. Description

The 140DAI75300C is a discrete input module from Schneider Electric's Modicon Quantum series. It features 32 input channels with an operational voltage of 230 VAC, and is designed to meet various industrial automation needs.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type Discrete input module
Product	Line Modicon Quantum
Part	Number 140DAI75300C
EAN	3595860001535
Input	Channels 32
Input	Voltage 230 VAC
Addressing	Requirement 2 input words
Input	Current 9.7 to 11.5 mA
Max	Leakage Current 2.6 mA
Bus	Current Requirement 250 mA
Max	Power Dissipation 5 W
Marking	CE
Format	Standard
Ambient	Temperature 0 to 60 °C
Standards	UL 508, CSA
Protective	Treatment Conformal coating

3. Product Information

www.oilautotech.com

The 140DAI75300C is a discrete input module from Schneider Electric's Modicon Quantum series. It features 32 input channels with an operational voltage of 230 VAC, and is designed to meet various industrial automation needs.

Technical specifications for 140DAI75300C

Manufacturer Schneider Electric

Product Type Discrete input module

Product Line Modicon Quantum

Part Number 140DAI75300C

EAN 3595860001535

Input Channels 32

Input Voltage 230 VAC

Addressing Requirement 2 input words

Input Current 9.7 to 11.5 mA

Max Leakage Current 2.6 mA

Bus Current Requirement 250 mA

Max Power Dissipation 5 W

Marking CE

Format Standard

Ambient Temperature 0 to 60 °C

Standards UL 508, CSA

Protective Treatment Conformal coating

Description

The 140DAI75300C module manufactured by Schneider Electric is part of the Modicon Quantum range, specifically designed as a discrete input interface. This module accommodates up to 32 input channels, designed to operate at a voltage of 230 VAC. Addressing necessitates 2 input words, ensuring effective communication with the connected system.

Operationally, the input current for each channel varies between 9.7 and 11.5 mA, with the module maintaining leakage current at a maximum of 2.6 mA to ensure efficient function and safety. Furthermore, it requires a bus current of 250 mA to operate correctly. Power dissipation is limited to 5 watts, which also contributes to the module's long-term reliability.

Overall, the 140DAI75300C is compact, with a weight of 0.3 kg, making it suitable for various applications within control systems.

This device is engineered for use in environments ranging from 0 to 60 degrees Celsius, providing adaptability across typical industrial settings. The module's design incorporates a conformal coating that enhances protection against environmental factors. It complies with CE certification and meets standards set by UL 508 and CSA, guaranteeing its suitability for industrial automation applications.

Range of product

Modicon Quantum automation platform

Product or component type

VAC discrete input modules

Software name

Concept

ProWORX 32

Unity Pro

Discrete input number

32

Complementary

Group of channels

4

Addressing requirement

2 input words

Discrete input voltage

230 V AC

Input current

11.5 mA 57...63 Hz

9.7 mA 47...53 Hz

Voltage state 1 guaranteed

165...264 V AC 57...63 Hz

175...264 V AC 47...53 Hz

Voltage state 0 guaranteed

0...40 V AC 57...63 Hz

0...40 V AC 47...53 Hz

Input impedance

26500 Ohm capacitive 57...63 Hz

31800 Ohm capacitive 47...53 Hz

Network frequency limits

www.oilautotech.com

47...63 Hz
Maximum leakage current
2.6 mA
Absolute maximum input
264 V continuous
312 V 10 s
400 V 1 cycle
Response time
4.9...0.75 ms x line cycle Off-On
7.3...12.3 ms On-Off
Isolation between group
1780 Vrms for 1 minute
Isolation between group and bus
1780 Vrms for 1 minute
Bus current requirement
250 mA
Maximum power dissipation in W
5 W
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
Marking
CE
Module format
Standard
Net weight
0.7 lb(US) (0.3 kg)
Environment
Protective treatment
Conformal coating Humiseal 1A33
Standards
UL 508
CSA C22.2 No 142
Product certifications
FM Class 1 Division 2
cUL
Resistance to electrostatic discharge
4 kV contact IEC 801-2
8 kV on air IEC 801-2
Resistance to electromagnetic fields
9.1 V/yd (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
≤ 5000 m
Packing Units
Unit Type of Package 1
PCE
Number of Units in Package 1
1
Package 1 Height
1.8 in (4.5 cm)
Package 1 Width
12.2 in (31.0 cm)

www.oilautotech.com

Package 1 Length
6.3 in (16.0 cm)
Package 1 Weight
18.7 oz (530.0 g)

www.oilautotech.com