# Product data sheet

Specifications



Discontinued - Service only

## discrete I/O module Modicon Quantum - 16 I - 24 V DC - 8 O solid state

140DDM39000

Discontinued on: Dec 31, 2022

To be end-of-service on: Dec 31, 2030

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Modicon Quantum automation platform |
| **Product or Component Type** | Mixed discrete I/O module |
| **Discrete I/O number** | 24 |

## Complementary

| | |
|---|---|
| **Discrete input number** | 16 2 groups of 8 |
| **Discrete input logic** | Sink |
| **Addressing requirement** | 1 input word<br>0.5 output word |
| **Network frequency limits** | 47…63 Hz |
| **Discrete input voltage** | 24 V DC |
| **Input voltage limits** | 30 V<br><= 1 V during one cycle<br>56 V during 1.3 ms<br><= 1 V during 10 s |
| **Voltage state 0 guaranteed** | -3...5 V |
| **Voltage state 1 guaranteed** | 15...30 V |
| **Current state 0 guaranteed** | <= 0.5 mA |
| **Current state 1 guaranteed** | >= 2 mA |
| **Input impedance** | 2500 Ohm |
| **Discrete output number** | 8 2 groups of 4 |
| **Discrete output type** | Solid state |
| **Discrete output logic** | Sink |
| **Discrete output voltage** | 24 V |
| **Output voltage limits** | 19.2...30 V DC typical<br>56 V DC during 1.3 ms |
| **Maximum load current** | <= 0.5 A per point<br><= 2 A per group<br><= 4 A per module |
| **Maximum voltage drop** | <0.4 V 0.5 A |
| **Absolute maximum output** | 5 A during 500 µs per point |
| **Maximum load inductance** | 500 mH 4 Hz |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Maximum load capacitance** | 50 µF |
| **Maximum leakage current** | 0.4 mA 30 V DC |
| **Response time on output** | <= 1 ms at state 0 to state 1<br><= 1 ms at state 1 to state 0 |
| **Protection Type** | On output by transient voltage suppression<br>On input by resistor limited<br>Internal output protection by 5 A fuse per group |
| **Associated fuse rating** | 5 A per group |
| **Isolation between group** | 500 Vrms for 1 minute |
| **Isolation between group and bus** | 1780 Vrms for 1 minute |
| **Fault indication** | Blown fuse on output<br>Loss of field power on output |
| **Power dissipation** | 1.75 W + (0.36 x input point on) + (1.1 total output load current) |
| **Local signalling** | 1 LED (green) for bus communication is present (Active)<br>1 LED (red) for no voltage in output and input (F)<br>2 LEDs (green) for output is turned on<br>2 LEDs (red) for fault detected on the input point<br>2 LEDs (red) for fault detected on the output point |
| **Marking** | CE |
| **Bus current requirement** | 330 mA |
| **Net Weight** | 0.7 lb(US) (0.3 kg) |

## Environment

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|---|---|
| **Resistance to electrostatic discharge** | 4 kV contact IEC 801-2<br>8 kV on air IEC 801-2 |
| **Resistance to electromagnetic fields** | 9.1 V/m (10 V/m) 80…1000 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) |
| **Standards** | CSA C22.2 No 142<br>UL 508<br>FM Class 1 Division 2 |
| **Product Certifications** | cUL |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US1PC2118155 |
| **Discount Schedule** | PC21 |
| **GTIN** | 3595861127036 |
| **Returnability** | Yes |

## 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)** | 15.03 oz (426.0 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 7 |
| **Package 2 Height** | 11.8 in (30.0 cm) |
| **Package 2 Width** | 11.8 in (30.0 cm) |
| **Package 2 Length** | 15.7 in (40.0 cm) |
| **Package 2 Weight** | 6.700 lb(US) (3.039 kg) |

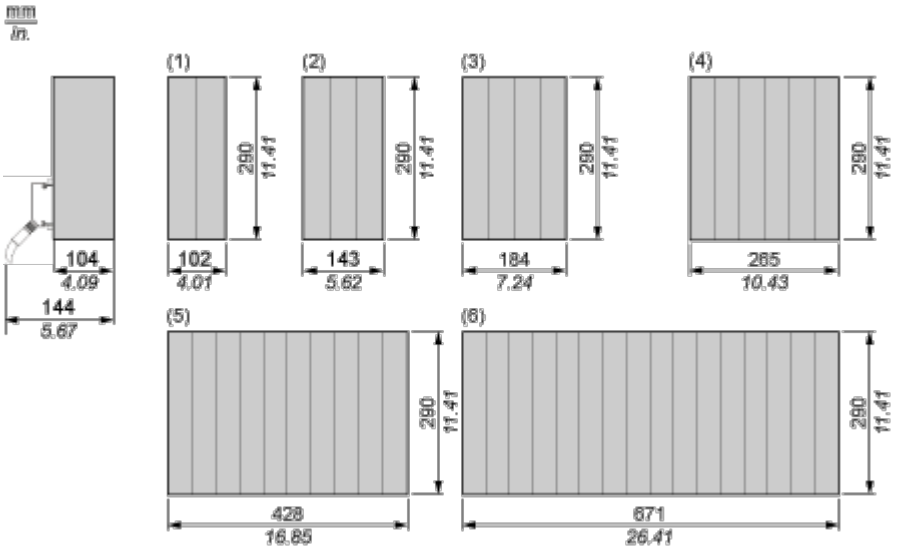
## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

Dimensions Drawings

## Racks for Modules Mounting

### Dimensions of Modules and Racks




(1) 2 slots

(2) 3 slots

(3) 4 slots

(4) 6 slots

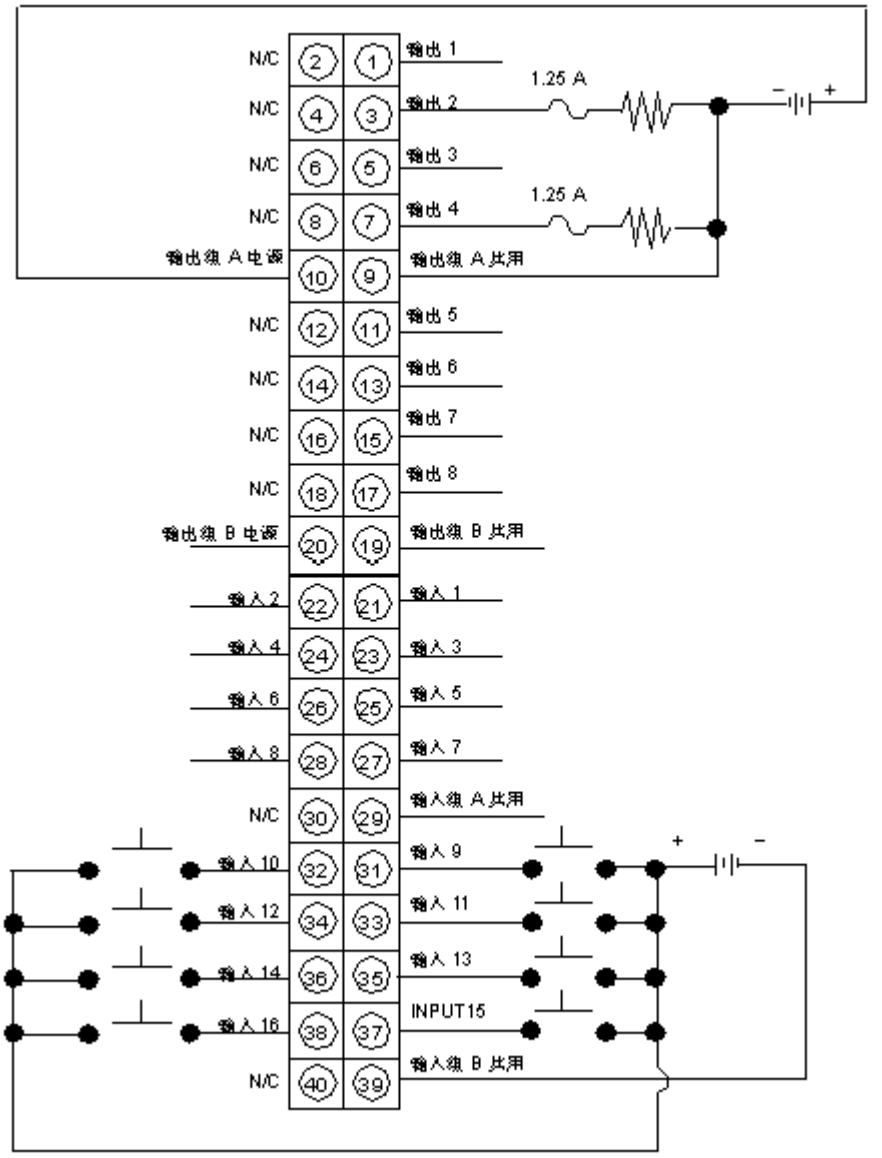
(5) 10 slots

(6) 16 slots

Connections and Schema

## 24 Vdc Discrete Input Sink/Output Source Module

### Wiring Diagram




N/C Not Connected