

# Product data sheet

Specifications



## discrete input module Modicon Quantum - 32 I - 48 V AC

140DAI45300

⚠ To be discontinued on: 31 December 2022

⚠ To be end-of-service on: 31 December 2030

⚠ To be discontinued

### Main

|                           |                                     |
|---------------------------|-------------------------------------|
| Range of product          | Modicon Quantum automation platform |
| Product or component type | VAC discrete input modules          |
| Software name             | ProWORX 32<br>Concept<br>Unity Pro  |
| Discrete input number     | 32                                  |

### Complementary

|                                 |                                                                                                                                            |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Group of channels               | 4                                                                                                                                          |
| Addressing requirement          | 2 input words                                                                                                                              |
| Discrete input voltage          | 48 V AC                                                                                                                                    |
| Input current                   | 11.7 mA at 57...63 Hz<br>9.8 mA at 47...53 Hz                                                                                              |
| Voltage state 1 guaranteed      | 29...56 V AC at 57...63 Hz<br>34...56 V AC at 47...53 Hz                                                                                   |
| Voltage state 0 guaranteed      | 0...10 V AC at 57...63 Hz<br>0...10 V AC at 47...53 Hz                                                                                     |
| Input impedance                 | 5600 Ohm capacitive at 57...63 Hz<br>6800 Ohm capacitive at 47...53 Hz                                                                     |
| Network frequency limits        | 47...63 Hz                                                                                                                                 |
| Maximum leakage current         | 1.7 mA                                                                                                                                     |
| Absolute maximum input          | 100 V 1 cycle<br>56 V continuous<br>63 V 10 s                                                                                              |
| Response time                   | 4.9...0.75 ms x line cycle Off-On<br>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  | 10.9 W                                                                                                                                     |
| Local signalling                | 1 LED (green) for bus communication is present (Active)<br>1 LED (red) for external fault detected (F)<br>32 LEDs (green) for input status |

|               |          |
|---------------|----------|
| Marking       | CE       |
| Module format | Standard |
| Net weight    | 0.3 kg   |

## Environment

|                                       |                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------|
| Standards                             | UL 508<br>CSA C22.2 No 142                                                  |
| Product certifications                | FM Class 1 Division 2<br>cUL                                                |
| Resistance to electrostatic discharge | 4 kV contact conforming to IEC 801-2<br>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                                                                   |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 475 g    |
| Package 1 Height             | 16.3 cm  |
| Package 1 width              | 4.5 cm   |
| Package 1 Length             | 31.2 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 2        |
| Package 2 Weight             | 1.305 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                         |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>                           |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

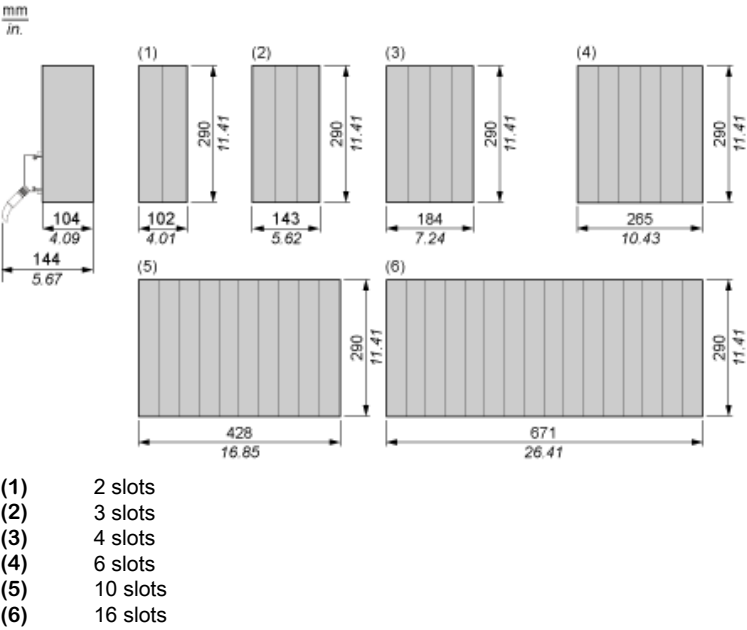
|                           |                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

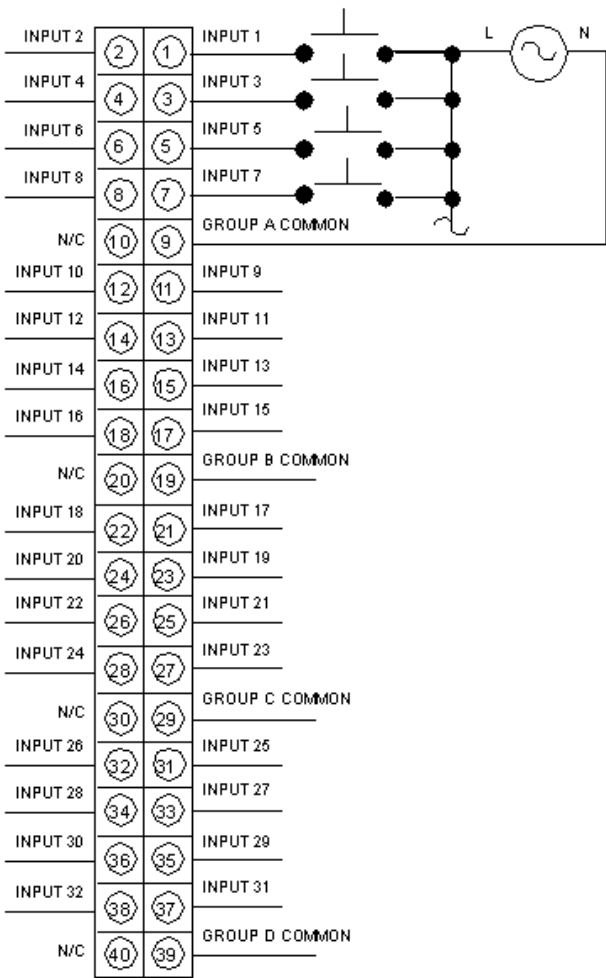
Racks for Modules Mounting

Dimensions of Modules and Racks



48 Vac Discrete Input Module

Wiring Diagram



N/C Not Connected

Recommended replacement(s)

140DAI45300 is replaced by:

1x



discrete input module X80 - 16 inputs - 48V AC - severe  
BMXDAI1603H