DESCRIPTION

The 2500C-16-DI-24V Module accepts a wide range of voltage signals. It is designed to accept both AC and DC voltage allowing the user to pick and choose ranges on a single module. Motor centers, optical sensors, limit switches and utility control are excellent examples of applications for this product.

FEATURES

- Single wide module
- 16 Channels Isolated in groups of 8 inputs
- Supports AC or DC voltage inputs
- Sourcing or sinking Inputs
- Channel On/Off Status Indication
- Uses CTI’s 2500C-32F Connector

## Input Specifications

<table>
<thead>
<tr>
<th>Inputs per module</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Logon</td>
<td>16X</td>
</tr>
<tr>
<td>Signal Range</td>
<td>10 to 30VAC/VDC</td>
</tr>
<tr>
<td>Input current</td>
<td>VAC 1.4 - 9.3mA, VDC 2.9 - 9.3mA</td>
</tr>
</tbody>
</table>

## Operating Characteristics for Typical Input

<table>
<thead>
<tr>
<th>AC Voltage Input</th>
<th>Turn ON Time: 3.7mS, Turn OFF Time: 15.0mS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Voltage Input</td>
<td>Turn ON Time: 3.14mS, Turn OFF Time: 13.7mS</td>
</tr>
</tbody>
</table>

## Module Size

- Single wide module

## Connector

- 2500C-32F

## Backplane Power (MAX)

- 0.067 watts No inputs ON
- 1.188 All inputs ON

## Input ESD Protection

- IEC 1000-4-2 LEVEL 4

## Isolation

- Isolated in groups of 8
- 1500 VDC Channel to Backplane
- 1000 VDC Group to Group

## Shipping Dimensions and Weight

- 223.84mm x 109.86mm x 34.93mm, 0.234kg

## Operating Temperature Range

- 0°C to 60°C (32°F to 140°F)

## Storage Temperature Range

- -40°C to 85°C (-40°F to 185°F)

## Relative Humidity

- 5% to 95% (non-condensing)

## Agency Approvals Pending

- UL, ULC, UL Class 1, Div 2, CE

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Control Technology Inc.
5734 Middlebrook Pike, Knoxville, TN 37921-5914
Phone: +1.865.584.0440    Fax: +1.865.584.5720
www.controltechnology.com

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20 July 2023
### 2500C-16-DI-24V Discrete Input Module

#### See Note 1 below

- **Channel 1 to 8 Return**: A1
- **B1**: 24V, Channel 1
- **A2**: Channel 2
- **B2**: 24V, Channel 2
- **A3**: Channel 3
- **B3**: 24V, Channel 3
- **A4**: Channel 4
- **B4**: 24V, Channel 4
- **A5**: Channel 5
- **B5**: 24V, Channel 5
- **A6**: Channel 6
- **B6**: 24V, Channel 6
- **A7**: Channel 7
- **B7**: 24V, Channel 7
- **A8**: Channel 8
- **B8**: 24V, Channel 8
- **A9**: Channel 9
- **B9**: 24V, Channel 9
- **A10**: Channel 10
- **B10**: 24V, Channel 10
- **A11**: Channel 11
- **B11**: 24V, Channel 11
- **A12**: Channel 12
- **B12**: 24V, Channel 12
- **A13**: Channel 13
- **B13**: 24V, Channel 13
- **A14**: Channel 14
- **B14**: 24V, Channel 14
- **A15**: Channel 15
- **B15**: 24V, Channel 15
- **A16**: Channel 16
- **B16**: 24V, Channel 16

#### See Note 2 below

Note:
The 2500C-16-DI-24V Discrete Input Modules use CTI Wiring Connector 2500C-32F. Please see the wiring connector specification table below. This connector is ordered separately from the module.

#### 2500C-32F Specifications

<table>
<thead>
<tr>
<th>Connector Style</th>
<th>Removable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Wiring Connections</td>
<td>32 point</td>
</tr>
<tr>
<td>Wire Gauge Use Copper Conductors Only</td>
<td>14 to 22AWG</td>
</tr>
<tr>
<td>Screw Torque Value</td>
<td>5.22 lb-in</td>
</tr>
<tr>
<td>Current Rating</td>
<td>6A @ 300VAC</td>
</tr>
<tr>
<td>Insulation Stripping Length</td>
<td>0.24” 6mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connector Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body: Polycarbonate UL 94V0</td>
</tr>
<tr>
<td>Screw: M3 Zinc plated Steel</td>
</tr>
<tr>
<td>Cage Clamp: Nickel Plated Brass</td>
</tr>
<tr>
<td>Socket Contact Spring: Tin Plated Bronze</td>
</tr>
<tr>
<td>Retaining Screw: M3 Zinc Plated Steel</td>
</tr>
</tbody>
</table>

### Note 1:
The 2500C-16-DI-24V is divided into two groups of 8 channels. Group A consists of Channels 1 thru 8 and Group B consists of Channels 9 thru 16. The input signal return for Group A can be connected at one channel, such as Channel 1 Return connection A1, or on all 1 thru 8 channels. Group B input signal return can be connected to one channel, such as Channel 9 Return connection A9, or to all 9 thru 16 channels. On the module’s printed circuit board the channels for each group’s return signal are tied together. This allows for a flexible wiring configuration.

### Note 2:
The 24V input is divided into 2 groups consisting of Group A for Channels 1 thru 8 and Group B for Channels 9 thru 16. Each Input Channel requires the 24V connection but the Return for each group only needs to be connected once.

#### Typical Circuit – Sourcing Device

- **Input Channel Return Terminal Ax**
- **VAC Line or VDC+**
- **Input Channel Terminal Bx**
- **SENSOR**
- **VAC Neutral or VDC-**

#### Typical Circuit – Sinking Device

- **Input Channel Terminal Bx**
- **SENSOR**
- **VAC Line or VDC+**
- **Input Channel Return Terminal Ax**
- **VAC Neutral or VDC-**

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