**CPU Specifications**

Programmable Flash Memory
- User Data Memory Type: Battery-backed RAM, User-configurable

Pluggable Option Module
- RS-232, RS-485, Ethernet 10/100 Base-T 1-Mbps (upload only) max USB 2.0 Type B

Expansion Modules
- 4 expansion modules max

Real Time Clock Accuracy
- ±4.68 days per year at 25°C ±1.5 days per year at 40°C

Programming Software
- Do-more Designer – Ver. 2.0 or higher

Custom Label Window Size
- 0.75" x 2.25" (19.78 x 57.2 mm)

**Built-in RS-232/485 Port Specifications**

- Non-isolated serial port that can communicate via RS-232 or RS-485 (software selectable). Includes ESD protection and built-in surge protection.

- Removable connector included.

- *NOTE: When using RS-485, a terminator resistor is built-in and software selectable.

- Cable Recommendations: RX and TX, 24 AWG. 2 meter (6.6 ft.) length, 4 required.
Discrete Input Specifications

- **Input Type**: Sink/Source
- **Total Inputs per Module**: 20 Total – 10 High Speed (X0..X9) * 10 Standard (X10..X19)
- **Nominal Voltage Rating**: 12–24 VAC/DC
- **Input Voltage Range**: 5–30 VAC/DC
- **Maximum Voltage**: 30 VAC/DC
- **DC Frequency**: 0–25kHz – High Speed
- **Minimum Pulse Width**: 0.5 μs – High Speed
- **AC Frequency**: 45–65 Hz (60–240Hz filter must be set in software)
- **Input Impedance**: 100KHz
- **Maximum Input Current**: 0.1mA @ 24VDC
- **Maximum OFF Current**: 2 mA
- **ON Voltage Level**: 9.9 VAC/DC
- **OFF Voltage Level**: < 2.5 VAC/DC
- **Status Indicators**: Logic Side, Green

Discrete Output Specifications

- **Output Type**: Sourcing
- **Total Outputs per Module**: 16 Total – 8 High Speed (Y0..Y7) * 8 Standard (Y8..Y15)
- **Nominal Voltage Rating**: 24 VDC
- **Maximum Voltage**: 250KHz
- **Minimum Output Current**: 0.5A @ 24VDC
- **Maximum Leakage Current**: 10mA @ 24VDC
- **Switching Frequency**: 100kHz
- **Status Indicators**: Logic Side, Green

High Speed Input (HSI) Functions

- **Function**
  - 1. Standard inputs may be used with high-speed functions, but at lower response frequencies of approximately 120Hz.
  - 2. Table-Driven outputs are triggered by an Auto Position or a high-speed counter/timer accumulation value. It requires the selection of 1 discrete output. (see HSO Note 1 below)

High Speed Input (HSI) Types

- **Function**: Sourcing
- **Inputs Required**: 2.0 Input cards

High Speed Output (HSO) Functions

- **Function**: Sourcing
- **Inputs Required**: 4.0 Input cards

High Speed I/O Wiring

- **Discrete Input Sinking Input**: NC 0 1 2 3
- **Discrete Output Sourcing Output**: NC 0 1 2 3
- **AC Input**: NC 0 1 2 3
- **DC Power**: NC 0 1 2 3

I/O Wiring

- **Discrete Input**: NC 0 1 2 3
- **Discrete Output**: NC 0 1 2 3

Supply Power Wiring

- **DC Power**: NC 0 1 2 3
- **AC Input**: NC 0 1 2 3
- **DC Power**: NC 0 1 2 3

**NOTE**: All inputs may be used as standard inputs

**NOTE**: All outputs may be used as standard outputs

**NOTE**: Output current is limited to 0.5A per output, no derating over temperature range

**NOTE**: Use of relay outputs is not recommended

**NOTE**: A combination of high-speed outputs and standard outputs may be used up to this limit.