General Specifications
- Operating Temperature: -30°C to 70°C (32°F to 140°F)
- Storage Temperature: -30°C to 85°C (0°F to 185°F)
- Relative Humidity: 5% to 95% (non-condensing)
- Environmental Air: Not corrosive gases permitted
- Vibration: IEC60950-2-6 (Test F)
- Shock: IEC60950-2-27 (Test F)
- Enclosure Type: Open Equipment
- Agency Approvals: UL 61010-2 UL File # E180839 Canada and USA
- Screw Immunity: NEMA CS63-70C
- EU Directive: See the “EU Directive” topic in the Help File
- Weight: 286g (10.1 oz)

CPU Specifications
- Program Flash Memory: 128k word (4MB)
- Data Flash Memory: 32k word (1MB)
- User Data Memory Type: Battery Backup RAM, User configurable
- Pluggable Option Module: RS-232, RS-485, Ethernet 10/100 BASE-T
- Expansion Modules: 4 expansion modules max
- Real Time Clock Accuracy: 42.64±0.75 per day typical at 25°C
- Inrush Current (Hot Start): 5A; 2ms
- Maximum Input Power: 10 (–) 36 VDC
- Maximum Input Voltage Range (Tolerance): 10 (–) 36 VDC
- Nominal Voltage Range: 10 (–) 36 VDC
- Power Supply Specifications: 12-24VDC
- Nominal Voltage Range: 10-36VDC
- Input Voltage Ripple: 10% ±20%
- Maximum Input Power: 30W
- Cold Start Inrush Current: 5A, 2ms
- Maximum Inrush Current (No Start): 5A, 2ms
- Internal Input Protection: Reverse Polarity Protection and Undervoltage
- Ambient Temperature: -10°C to 70°C
- Altitude: 2000m
- Power Consumption (Normal Mode): 17.1W Max
- Power Consumption (Stop Mode): 0.75W
- Battery Backed RAM: User configurable
- Low Battery: CPU is forced into RUN Mode if no errors are encountered.
- CPU is in STOP Mode: Date
- CPU is in RUN Mode: Status
- CPU Status Indicators
- Red LED: CPU is functioning normally
- Green LED: CPU is in STOP Mode
- Yellow LED: CPU is in RUN Mode
- Amber LED: CPU is in PROGRAM Mode

Built-in RS-232/485 Port Specifications
- Port Name: RS-232/485, Built-in
- Port Type: 9pin terminal plug, 5pin plug
- Port Status LED: Green LED is illuminated when active for RX and TX
- FS-485 Station Addresses: 1-255
- USB Port Name: USB 2.0 Type B
- USB Port Type: Removable connector included.

CPU Mode Switch Functions
- RUN position: CPU is forced into RUN Mode if no errors encountered.
- STOP position: CPU is forced into STOP Mode

Warning: To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for the product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call Technical Support at 770-844-4200.

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Single Input (Edge) timers
- 12mA @ 30 VAC/DC

Quadrature (A and B) counters
- 0–250kHz - High Speed
- 0.1mA @ 24VAC/DC

Quadrature (A and B with Z) counters

Logic Side, Green
- 2A (5 points/common) Isolated

Pulse/Direction (Bidirectional) counters
- 5–60 VDC, 5–264 VAC

PTO rotary clockwise/counter-clockwise
- Sink/Source

Input interrupts
- PWM pulse width modulation outputs

Up counters
- > 9.0 VAC/VDC

Down counters
- 47–63 Hz (60–240Hz filter must be set in software for AC operation)

Relay Form A (SPST)

Discrete Input Specifications
- Input Type: Sink/Source
- Total Inputs per Module: 10
- Commom: 2.0 points (common) isolated
- Nominal Voltage Rating: 12–24 VAC/DC
- Input Range: 3–30 VAC/DC
- DC Frequency: 0–255kHz - High Speed
- Minimum Pulse Width: 0.5 μs - High Speed
- AC Frequency: 15–50 Hz (in 12–48 VDC, 24–240 VAC)
- Minimum Input Current: 12mA @ 30 VAC/DC
- Maximum Input Current: 20mA @ 30 VAC/DC
- Maximum OFF Current: 4.0 mA
- ON Voltage Level: +12.0 VAC/VDC
- OFF Voltage Level: < 2.0 VAC/VDC
- Status Indicators: Logic Side, Green

Discrete Output Specifications
- Output Type: Relay Form A (SPST)
- Total Outputs per Module: 8
- Commom: 2.0 points (common) isolated
- Nominal Voltage Ratings: 12–48 VDC, 24–240 VAC
- Operating Voltage Range: 6–28 VDC, 5–264 VAC
- Maximum Voltage: BN2DC, 264VAC
- Minimum Output Current: 51mA @ 24VAC/DC
- Maximum Output Current: 2A
- Maximum Leakage Current: 1μA (DC) 30μA (AC) due to RC snubber
- Maximum Switching Frequency: 10Hz
- Status Indicators: Logic Side, Green

High Speed Input (HSI) Functions
- Function: Input
- Required: Inputs Requested
- Total Outputs per Module: 8

High-Speed
- Counting: Pulse
- Position Scaling: 0
- Measurement: 0
- Clock: 0

Interrupts
- Input: 0
- Status: 0

High-Speed Output (HSO) Functions
- 1. Standard inputs may be used with high-speed functions, but at lower response frequencies of approximately 120Hz.
- 2. Table-Driven Output(s) are triggered by an Axis Position or a high-speed counter/timer accumulator value. It requires the selection of 1 discrete output. (See HSO Note 1 below)

Discrete Input Wiring

Discrete Output Wiring

Supply Power Wiring