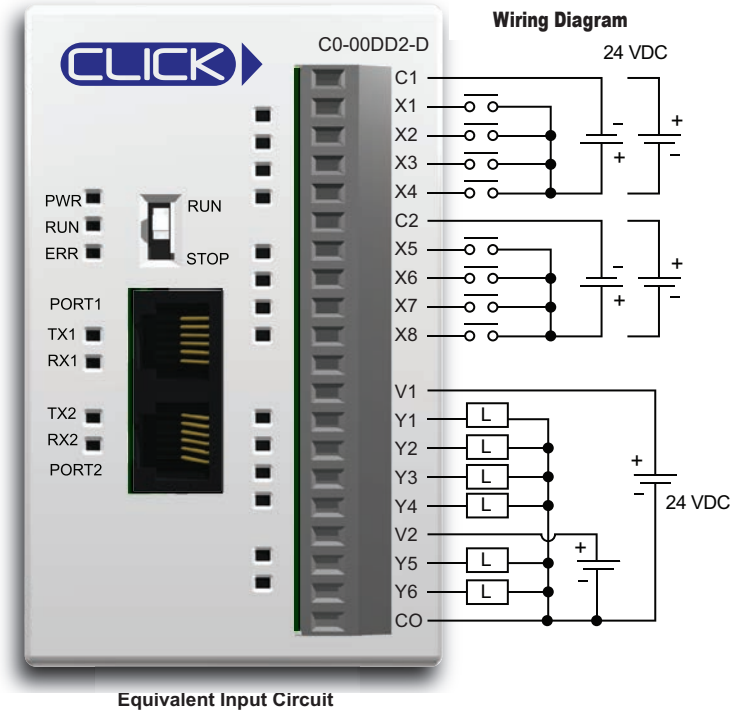
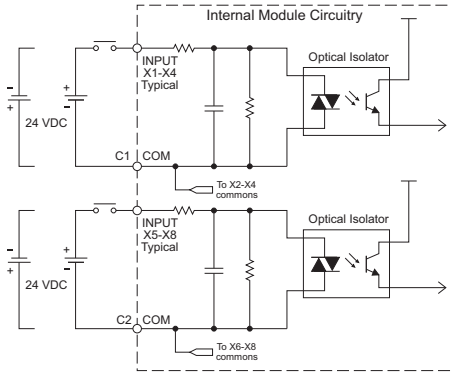
## C0-00DD2-D $104.00

***8 DC Input/6 Sourcing DC Output Micro PLC***

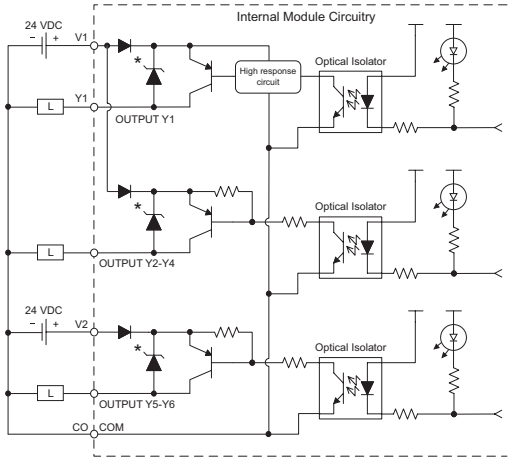



**Wiring Diagram**

**Equivalent Input Circuit**




**Equivalent Output Circuit**



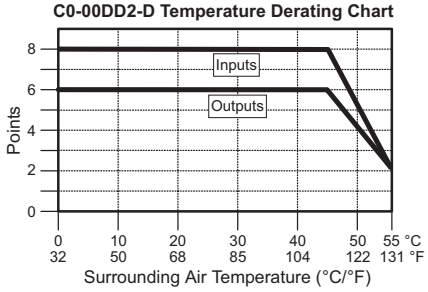

*Zener Diode Power Dissipation: 200 mW

| Built-in I/O Specifications - Inputs | |
|---|---|
| ***Inputs per Module*** | 8 (Sink/Source) |
| ***Operating Voltage Range*** | 24 VDC |
| ***Input Voltage Range*** | 21.6–26.4 VDC |
| ***Input Current*** | X1–2: Typ 5 mA @ 24 VDC<br>X3–8: Typ 4 mA @ 24 VDC |
| ***Maximum Input Current*** | X1–2: 6.0 mA @ 26.4 VDC<br>X3–8: 5.0 mA @ 26.4 VDC |
| ***Input Impedance*** | X1–2: 4.7 kΩ @ 24 VDC<br>X3–8: 6.8 kΩ @ 24 VDC |
| ***ON Voltage Level*** | X1–2: > 19 VDC<br>X3–8: > 19 VDC |
| ***OFF Voltage Level*** | X1–2: < 4 VDC<br>X3–8: < 7 VDC |
| ***Minimum ON Current*** | X1–2: 4.5 mA<br>X3–8: 3.5 mA |
| ***Maximum OFF Current*** | X1–2: 0.1 mA<br>X3–8: 0.5 mA |
| ***OFF to ON Response*** | X1–2: Typ 5 µs Max 20 µs<br>X3–8: Typ 2 ms Max 10 ms |
| ***ON to OFF Response*** | X1–2: Typ 5 µs Max 20 µs<br>X3–8: Typ 3 ms Max 10 ms |
| ***Status Indicators*** | Logic Side (8 points, green LED) |
| ***Commons*** | 1 (6 points/common) |

| Built-in I/O Specifications - Outputs | |
|---|---|
| ***Outputs per Module*** | 6 (Source) |
| ***Operating Voltage Range*** | 24 VDC |
| ***Output Voltage Range*** | 19.2–30 VDC |
| ***Maximum Output Current*** | 0.1 A/point, 0.6 A/common |
| ***Minimum Output Current*** | 0.2 mA |
| ***Maximum Leakage Current*** | 0.1 mA @ 30 VDC |
| ***On Voltage Drop*** | Y1: 1.0 VDC @ 0.1A<br>Y2–6: 0.5 VDC @ 0.1A |
| ***Maximum Inrush Current*** | 150 mA for 10 ms |
| ***OFF to ON Response*** | Y1: typ 5 µs; max 20 µs<br>Y2–6: < 0.5 ms |
| ***ON to OFF Response*** | Y1: typ 5 µs; max 20 µs<br>Y2–6: < 0.5 ms |
| ***Status Indicators*** | Logic Side (6 points, red LED) |
| ***Commons*** | 1 (6 points/common) |

| General Specifications | |
|---|---|
| ***Current Consumption at 24 VDC*** | 120 mA |
| ***Terminal Block Replacement Part No.*** | C0-16TB |
| ***Drawing Link*** | PDF |
| ***Weight*** | 5.0 oz [140g] |

**C0-00DD2-D Temperature Derating Chart**




***ZIP*Link Pre-Wired PLC Connection Cables and Modules**

**ZL-RTB20 20-pin feed-through connector module**

**20-pin connector cable**
**ZL-C0-CBL20 (0.5m length)**
**ZL-C0-CBL20-1 (1.0m length)**
**ZL-C0-CBL20-2 (2.0m length)**

# CLICK PLC Specifications

## General Specifications For All CLICK PLC Products

These general specifications apply to all CLICK PLCs and optional power supply products. Please refer to the appropriate I/O temperature derating charts under both the PLC and I/O module specifications to determine best operating conditions based on the ambient temperature of your particular application.

| General Specifications | |
|---|---|
| ***Operating Temperature*** | Analog, analog combo I/O modules only:<br>32–140 °F [0–60 °C];<br>All other modules:<br>32–131 °F [0–55 °C],<br>IEC 60068-2-14 (Test Nb, Thermal Shock) |
| ***Storage Temperature*** | –4 to +158 °F [–20 to +70 °C]<br>IEC 60068-2-1 (Test Ab, Cold)<br>IEC 60068-2-2 (Test Bb, Dry Heat)<br>IEC 60068-2-14 (Test Na, Thermal Shock) |
| ***Ambient Humidity*** | 30% to 95% relative humidity (non–condensing) |
| ***Environmental Air*** | No corrosive gases. Environmental pollution level is 2 (UL840) |
| ***Vibration*** | MIL STD 810C, Method 514.2, EC60068-2-27, Category [f], Procedure[VIII]<br>JIS C60068-2-27 (Sine wave vibration test) |
| ***Shock*** | MIL STD 810C, Method 516.2, IEC60068-2-27,<br>JIS C60068-2-27, Category [f], Procedure[VIII] |
| ***Noise Immunity*** | <EN61131-2><br>EN61000-4-2 (ESD)<br>EN61000-4-3 (RFI)<br>EN61000-4-4 (FTB)<br>EN61000-4-5 (Surge)<br>EN61000-4-6 (Conducted)<br>EN61000-4-8 (Power frequency magnetic field immunity)<br><br><Local Test><br>Impulse noise 1µs, 1000V<br>RFI: No interference measured at 150 and 450 MHz (5w/15cm) |
| ***Emissions*** | EN55011:1998 Class A; EN61000-6-4:2007+A1:2011 |
| ***Agency Approvals*** | UL508, UL61010-2-201 (File No. E157382, E316037);<br>CE (EN61131-2); CUL Canadian C22.2 |
| ***Other*** | RoHS 2011/65/EU Amendment (EU)2015/863 |

# CLICK PLC Specifications

## PLC Unit Specifications

| Basic, Standard and Analog PLC Unit Specifications | | | |
|---|---|---|---|
| | ***Basic PLC*** | ***Standard PLC*** | ***Analog PLC*** |
| ***Control Method*** | Stored Program/Cyclic execution method | Stored Program/Cyclic execution method | Stored Program/Cyclic execution method |
| ***I/O Numbering System*** | Fixed in Decimal | Fixed in Decimal | Fixed in Decimal |
| ***Ladder Memory (steps)*** | 8000 | 8000 | 8000 |
| ***Total Data Memory (words)*** | 8000 | 8000 | 8000 |
| ***Contact Execution (Boolean)*** | < 0.6 us | < 0.6 us | < 0.6 us |
| ***Typical Scan (1K Boolean)*** | 1–2 ms | 1–2 ms | 1–2 ms |
| ***RLL Ladder Style Programming*** | Yes | Yes | Yes |
| ***Run Time Edits*** | No | No | No |
| ***Scan*** | Variable / fixed | Variable / fixed | Variable / fixed |
| ***CLICK Programming Software for Windows*** | Yes | Yes | Yes |
| ***Built-in Communication Ports*** | Yes (two RS-232 ports) | Yes (two RS-232 ports and one RS-485 port) | Yes (two RS-232 ports and one RS-485 port) |
| ***Protocols*** | Protocols: Modbus RTU (master/slave) and ASCII (in/out) | | |
| ***FLASH Memory*** | Standard on PLC | Standard on PLC | Standard on PLC |
| ***Built-in Discrete I/O points*** | 8 inputs, 6 outputs | 8 inputs, 6 outputs | 4 inputs, 4 outputs |
| ***Built-in Analog I/O Channels*** | No | No | 2 inputs, 2 outputs |
| ***Number of Instructions Available*** | 21 | 21 | 21 |
| ***Control Relays*** | 2000 | 2000 | 2000 |
| ***System Control Relays*** | 1000 | 1000 | 1000 |
| ***Timers*** | 500 | 500 | 500 |
| ***Counters*** | 250 | 250 | 250 |
| ***Interrupts*** | Yes (external: 8 / timed: 4) | Yes (external: 8 / timed: 4) | Yes (external: 4 / timed: 4) |
| ***Subroutines*** | Yes | Yes | Yes |
| ***For/Next Loops*** | Yes | Yes | Yes |
| ***Math (Integer and Hex)*** | Yes | Yes | Yes |
| ***Drum Sequencer Instruction*** | Yes | Yes | Yes |
| ***Internal Diagnostics*** | Yes | Yes | Yes |
| ***Password Security*** | Yes | Yes | Yes |
| ***System Error Log*** | Yes | Yes | Yes |
| ***User Error Log*** | No | No | No |
| ***Memory Backup*** | Super Capacitor | Super Capacitor + Battery | Super Capacitor + Battery |
| ***Battery Backup*** | No | Yes (battery sold separately; part # D2-BAT-1) | Yes (battery sold separately; part # D2-BAT-1) |
| ***Calendar/Clock*** | No | Yes | Yes |
| ***I/O Terminal Block Replacement*** | AutomationDirect p/n C0-16TB | AutomationDirect p/n C0-16TB | AutomationDirect p/n C0-16TB |
| ***Communication Port & Terminal Block Replacement*** | N/A | AutomationDirect p/n C0-3TB | AutomationDirect p/n C0-3TB |
| ***24 VDC Power Terminal Block Replacement*** | AutomationDirect p/n C0-4TB | AutomationDirect p/n C0-4TB | AutomationDirect p/n C0-4TB |

# CLICK Specifications

## CLICK PLC Hardware/Software Compatibility

CLICK PLCs require a minimum software version of v2.50 for the PID function. The table below shows the most recent software and hardware versions required for the High-Speed input operation capability to be accessible.

**CLICK PLC Features Software Compatibility**

| CPU Type | Part Number | Minimum CLICK Software Version | | | | |
|---|---|---|---|---|---|---|
| | | Hardware | High-Speed Inputs | EtherNet/IP | PID | DHCP |
| Basic | C0-00DD1-D | v1.00 | N/A | N/A | N/A | N/A |
| | C0-00DD2-D | | | | | |
| | C0-00DR-D | | | | | |
| | C0-00AR-D | | | | | |
| Standard | C0-01DD1-D | v1.20 | N/A | N/A | N/A | N/A |
| | C0-01DD2-D | | | | | |
| | C0-01DR-D | | | | | |
| | C0-01AR-D | | | | | |
| Analog | C0-02DD1-D (before SN 171208001) | v1.12 | N/A | N/A | N/A | N/A |
| | C0-02DD1-D (SN 171208001–25Z319999) | v2.10 | | | | |
| | C0-02DD1-D (SN 260100001 or later) | v2.61 | | | | |
| | C0-02DD2-D (before SN 174018001) | v1.12 | | | | |
| | C0-02DD2-D (SN 174018001–25Z319999) | v2.10 | | | | |
| | C0-02DD2-D (SN 260100001 or later) | v2.61 | | | | |
| | C0-02DR-D (before SN 173158001) | v1.12 | | | | |
| | C0-02DR-D (SN 173158001–25Z319999) | v2.10 | | | | |
| | C0-02DR-D (SN 260100001 or later) | v2.61 | | | | |
| Ethernet CPUs | Ethernet CPUs require v2.40 for EtherNet/IP communications | | | | | |
| Ethernet Basic | C0-10DD1E-D | v2.00 | v2.30 | v2.40 | v2.50 | v3.00 |
| | C0-10DD2E-D | | | | | |
| | C0-10DRE-D | | | | | |
| | C0-10ARE-D | | N/A | | | |
| Ethernet Standard | C0-11DD1E-D | v2.00 | v2.30 | v2.40 | v2.50 | v3.00 |
| | C0-11DD2E-D | | | | | |
| | C0-11DRE-D | | | | | |
| | C0-11ARE-D | | N/A | | | |
| Ethernet Analog | C0-12DD1E-D | v2.20 | v2.30 | v2.40 | v2.50 | v3.00 |
| | C0-12DD2E-D | | | | | |
| | C0-12DRE-D | | | | | |
| | C0-12ARE-D | | N/A | | | |
| | C0-12DD1E-1-D | | v2.30 | | | |
| | C0-12DD2E-1-D | | | | | |
| | C0-12DRE-1-D | | | | | |
| | C0-12ARE-1-D | | N/A | | | |
| | C0-12DD1E-2-D | | v2.30 | | | |
| | C0-12DD2E-2-D | | | | | |
| | C0-12DRE-2-D | | | | | |
| | C0-12ARE-2-D | | N/A | | | |

**Table continued on next page.**

# CLICK Specifications

## CLICK PLC Hardware/Software Compatibility (continued)

| CLICK PLC Features Software Compatibility (Continued) | | | | | | |
|---|---|---|---|---|---|---|
| *CPU Type* | *Part Number* | *Minimum CLICK Software Version* | | | | |
| | | *Hardware* | *High-Speed Inputs* | *EtherNet/IP* | *PID* | *DHCP* |
| *I/O Modules* | C0-08NE3 | v1.20 | N/A | N/A | N/A | N/A |
| | C0-16NE3 | | | | | |
| | C0-04AD-1 | v1.40 | | | | |
| | C0-04AD-2 | | | | | |
| | C0-04DA-1 | | | | | |
| | C0-04DA-2 | | | | | |
| | C0-4AD2DA-1 | | | | | |
| | C0-4AD2DA-2 | | | | | |
| | C0-04RTD | | | | | |
| | C0-04THM | | | | | |
| | C0-08CDR | | | | | |
| | C0-16CDD1 | | | | | |
| | C0-16CDD2 | | | | | |
| | C0-04POT | v3.70 | | | | |
| | Other modules | v1.00 | | | | |

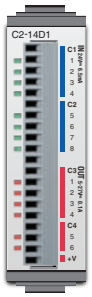
# CLICK PLC Family Overview

## What you'll need

Of course, what you'll need for your system depends on your particular application, but this overview shows you what you'll need for a simple system.

***1.*** ***Select your CLICK or CLICK PLUS PLC unit.***

***2.*** ***If using a CLICK PLUS PLC, select an Option Slot Module if desired.***




***3.*** ***If you need additional I/O, select from 24 different types of Stackable I/O modules.***

***4.*** ***Select a 24 VDC power supply.***

**or**

***5.*** ***Download the FREE CLICK programming software.***
***support.automationdirect.com/products/clickplcs.html***

***6.*** ***Download the FREE CLICK mobile app. The CLICK mobile app is available for iOS and Android. It can connect to your C2-02CPU or C2-03CPU over Bluetooth to provision the PLC onto a Wi-Fi network. (PLC requires an external antenna)***

Download on the App Store

GET IT ON Google Play

# CLICK PLC Family Overview

## What you'll need (continued)

**7.** ***Select your PC-to-PLC programming cable.***
If your PC has a USB port, use cable EA-MG-PGM-CBL to connect to the PLC port. If your PC has a 9-pin serial communications port, use programming cable D2-DSCBL. If your PC has an Ethernet port, use C5E-STPYL-C3 (crossover) or C5E-STPYL-S3 (straight through) Ethernet cable. If your PC is on a network with a wireless access point, you can connect using one of our Wi-Fi anteannas.

**USB-CBL-AMICB6**

**USB A to USB microB Programming Cable Assembly (CLICK PLUS Only)**

**C5E-STPYL-C3 (crossover)**
**C5E-STPYL-S3 (straight through)**

**For Ethernet PLC Unit**

**or**

**SE-ANT250**
**Wi-Fi/Bluetooth Dome Antenna**
**(C2-02CPU & C2-03CPU only)**

**or**

**SE-ANT210**
**Wi-Fi/Bluetooth Whip Antenna**
**(C2-02CPU & C2-03CPU only)**
**(nonmetal enclosure only)**

**D2-DSCBL**

**(PC requires RS-232 port to use this cable)**

**or**

**EA-MG-PGM-CBL**

**Connects to PC USB Port**

**8.** ***Select tools, wire, and provide power.***

**Screwdriver**
**TW-SD-MSL-2**

**Wire Strippers**
**DN-WS**

**Hookup Wire**

# Power Supplies

## Power Supplies

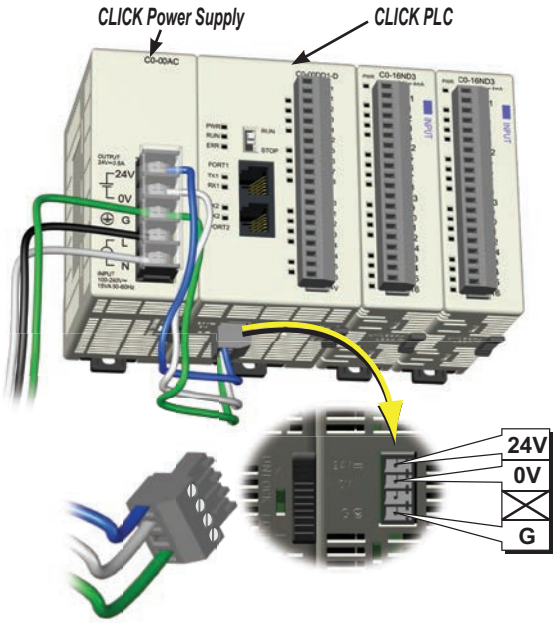
The CLICK PLC family offers two 24 VDC power supplies. They are identical except for the output current.

It is not mandatory to use one of these CLICK power supplies for the CLICK/CLICK PLUS PLC system. You can use any other 24 VDC power supply that Automationdirect.com offers, including the PSP24-DC12-1 12 to 24 VDC converter shown below.

***C0-00AC Power Supply***
Limited auxiliary AC power supply allows you to power the 24 VDC CLICK C0 and C2 series PLCs with 100–240 VAC supply power. The 0.5A DC power supply is capable of controlling the PLC plus a limited configuration based on the power budget of each I/O module. The C0-00AC is a low-cost solution for applications requiring only minimal I/O and power consumption. This power supply will not support a fully-populated CLICK PLC system with all possible I/O module combinations.

***C0-01AC Power Supply***
Expanded auxiliary AC power supply allows you to power the 24 VDC CLICK C0 and C2 series PLCs with 100–240 VAC supply power. The 1.3A DC power supply is capable of supporting a fully-populated CLICK PLC system with all possible I/O module
combinations, with no concerns for exceeding the power budget.

***PSP24-DC12-1 DC-DC Converter***
With this DC-DC converter you can operate the CLICK/CLICK PLUS PLC with 12 VDC input power.




**24 VDC power is supplied to the PLC unit through wiring connected from the power supply output to the 4-pin 24 VDC input connector located on the bottom of the PLC unit.**

**C0-00AC**

**C0-01AC**

**PSP24-DC12-1**

### CLICK 24 VDC Power Supply Ratings

| Part Number | Output Current | Price |
|---|---|---|
| C0-00AC | 0.5A | $59.00 |
| C0-01AC | 1.3A | $73.00 |

### Power Supply Input Specifications

| Part Number | C0-00AC | C0-01AC |
|---|---|---|
| Input Voltage Range | 85–264 VAC | |
| Input Frequency | 47–63 Hz | |
| Input Current (typical) | 0.3A @ 100 VAC, 0.2A @ 200 VAC | 0.9A @ 100 VAC, 0.6A @ 200 VAC |
| Inrush Current | 30A | |
| Efficiency | 80% typical | |

### Power Supply Output Specs

| Part Number | C0-00AC | C0-01AC |
|---|---|---|
| Output Voltage Range | 23–25 VDC | |
| Output Current | 0.5A | 1.3A |
| Ripple | 200 mV p-p max (0–55 °C) | |
| Ripple Noise | 300 mV p-p max (0–55 °C) | |
| Over Current Protection | @ 0.65A (automatic recovery) | @ 1.6A (automatic recovery) |
| Over Voltage Protection | @ 27.6V (clamped by Zener diode) | |
| Start-up Time | 1000 ms max at rated input and load | |
| Hold-up Time | 10 ms minimum at 85 VAC, I=max | |

### Power Supply General Specs

| Part Number | C0-00AC | C0-01AC |
|---|---|---|
| Ambient Operating Temperature | 32–131 °F [0–55 °C] | |
| Storage Temperature | -4 to +158 °F [-20 to +70 °C] | |
| Humidity | 30–95%, non-condensing | |
| Vibration Resistance | JIS C60068-2-6, sine wave vibration | |
| Shock Resistance | JIS C60068-2-27 | |
| Voltage Withstand<br>Input-Output<br>Input-Ground<br>Output-Ground | <br>1500 VAC, 5 mA cutoff current<br>1500 VAC, 5 mA cutoff current<br>500 VAC, 5 mA cutoff current | |
| Insulation Resistance<br>Input-Output<br>Input-Ground<br>Output-Ground | <br>10 MΩ minimum, 500 VDC<br>10 MΩ minimum, 500 VDC<br>5 MΩ minimum, 500 VDC | |
| Noise Immunity | FCC Class A, EN55022:1998 Class A | |
| Input/Output Interface | 5P terminal block, Fujicon UF2362AX series or equivalent | |
| Agency Approvals | UL508, UL1604, EN61010-1 (IEC 1010-1), CAN/CSA E60079-15:02, JIS C0025 | |
| Drawing Link | PDF | PDF |
| Weight | 5.3 oz [150g] | 6.0 oz [170g] |

### PSP24-DC12-1 DC-DC Converter Specs

| | |
|---|---|
| Input Voltage Range | 9.5–18 VDC |
| Input Power (no load) | 1.0W max. |
| Startup Voltage | 8.4 VDC |
| Undervoltage Shutdown | 7.6 VDC |
| Output Voltage Range | 24–28 VDC (adjustable) |
| Output Current | 1.0A |
| Short Circuit Protection | Current limited at 110% typical |
| Drawing Link | PDF |
| Weight | 7.5 oz [213g] |

# Power Budgeting

## Power Budgeting

There are two factors to consider when determining the power required to operate a CLICK PLC system. The first is the power required by the PLC and internal logic-side power provided through the PLC. This includes the CPU's own I/O, any connected I/O modules that are powered through the PLC expansion port, plus any device, such as a ***C-more*** Micro-Graphic panel, that is powered through one of the communications ports.

The second area is the power required by all externally-connected I/O devices. This should be viewed as the field-side power required. The field-side power is dependent on the voltage used for a particular input or output device as it relates to the wired I/O point and to the calculated load rating of the connected device.

It is strongly recommended that the power source for the logic side be separate from the power source for the field side to help eliminate possible electrical noise.

Power budgeting requires the calculation of the total current the 24 VDC power source needs to provide to CLICK's logic side. A separate calculation is required to determine the total current required for all devices operating from the field side of the PLC system.

Refer to the Power Budgeting example shown on the following page. The table shows required current for a CLICK PLUS PLC, two I/O modules, and a ***C-more*** Micro. Use the total amperage values to select a suitable power supply.

**CLICK 24 VDC Power Supply**
**C0-00AC or C0-01AC**

**Other 24 VDC Power Supply**
**Example: PSP24-060S**

## Power Consumption for CLICK and CLICK PLUS PLC Units

| PLC Current Consumption (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (Logic Side)* | *External 24 VDC (Field Side)* |
| ***Basic PLC Units*** | | |
| C0-00DD1-D | 120 | 60 |
| C0-00DD2-D | 120 | 0 |
| C0-00DR-D | | |
| C0-00AR-D | | |
| ***Standard PLC Units*** | | |
| C0-01DD1-D | 140 | 60 |
| C0-01DD2-D | 140 | 0 |
| C0-01DR-D | | |
| C0-01AR-D | | |
| ***Analog PLC Units*** | | |
| C0-02DD1-D | 140 | 60 |
| C0-02DD2-D | 140 | 0 |
| C0-02DR-D | | |
| ***Ethernet Basic PLC Units*** | | |
| C0-10DD1E-D | 120 | 60 |
| C0-10DD2E-D | 120 | 0 |
| C0-10DRE-D | | |
| C0-10ARE-D | | |
| ***Ethernet Standard PLC Units*** | | |
| C0-11DD1E-D | 140 | 60 |
| C0-11DD2E-D | 140 | 0 |
| C0-11DRE-D | | |
| C0-11ARE-D | | |

| PLC Current Consumption (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (Logic Side)* | *External 24 VDC (Field Side)* |
| ***Ethernet Analog PLC Units*** | | |
| C0-12DD1E-D | 140 | 60 |
| C0-12DD2E-D | | 0 |
| C0-12DRE-D | 160 | |
| C0-12ARE-D | | |
| C0-12DD1E-1-D | 140 | 60 |
| C0-12DD2E-1-D | | 0 |
| C0-12DRE-1-D | 160 | |
| C0-12ARE-1-D | | |
| C0-12DD1E-2-D | 140 | 60 |
| C0-12DD2E-2-D | | 0 |
| C0-12DRE-2-D | 160 | |
| C0-12ARE-2-D | 140 | |
| ***CLICK PLUS PLCs*** | | |
| C2-01CPU | 110 | 0 |
| C2-01CPU-2 | 120 | |
| C2-02CPU | 105 | |
| C2-02CPU-2 | 115 | |
| C2-03CPU | 130 | |
| C2-03CPU-2 | 140 | |

## Power Consumption for CLICK PLUS Option Slot Modules

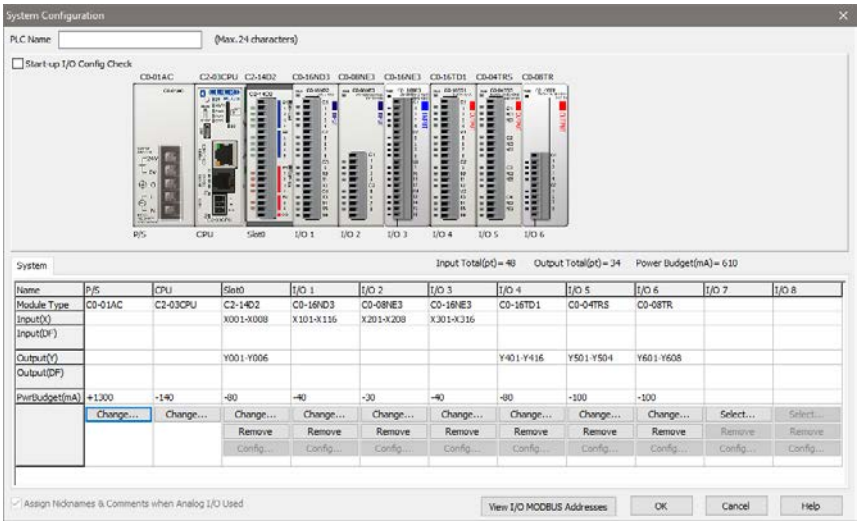
| CLICK PLUS Option Slot Modules Current Consumption (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (Logic Side)* | *External 24 VDC (Field Side)* |
| ***Option Slot I/O Modules*** | | |
| C2-14D1 | 50 | 60 |
| C2-14D2 | 50 | 0 |
| C2-14DR | 75 | 0 |
| C2-14AR | 75 | 0 |
| C2-14TTL | 220 | 0 |
| C2-08D1-4VC | 80 | 60 |
| C2-08D2-4VC | 80 | 0 |
| C2-08DR-4VC | 100 | 0 |
| C2-08AR-4VC | 100 | 0 |
| C2-08D1-6C | 80 | 60 |
| C2-08D2-6C | 80 | 0 |
| C2-08DR-6C | 100 | 0 |
| C2-08AR-6C | 100 | 0 |
| C2-08D1-6V | 80 | 60 |
| C2-08D2-6V | 80 | 0 |
| C2-08DR-6V | 100 | 0 |
| C2-08AR-6V | 100 | 0 |
| ***Option Slot Intelligent Modules*** | | |
| C2-DCM | 60 | 0 |
| C2-NRED | 125 | 0 |
| C2-OPCUA | 125 | 0 |

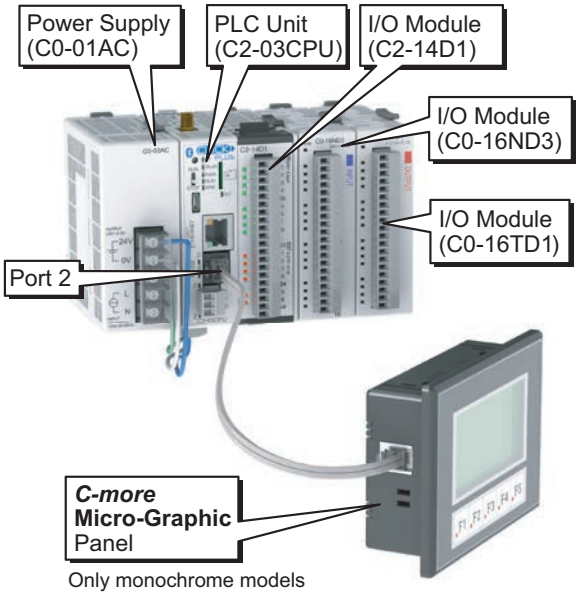
# Power Budgeting

## Power Consumption for CLICK Stackable I/O Modules

| I/O Module Current Consumption (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (logic side)* | *External 24 VDC (field side)* |
| ***Discrete Input Modules*** | | |
| ***C0-08SIM*** | 50 | 0 |
| ***C0-08ND3*** | 30 | 0 |
| ***C0-08ND3-1*** | 30 | 0 |
| ***C0-16ND3*** | 40 | 0 |
| ***C0-08NE3*** | 30 | 0 |
| ***C0-16NE3*** | 40 | 0 |
| ***C0-08NA*** | 30 | 0 |
| ***Discrete Output Modules*** | | |
| ***C0-08TD1*** | 50 | 15 |
| ***C0-08TD2*** | 50 | 0 |
| ***C0-16TD1*** | 80 | 100 |
| ***C0-16TD2*** | 80 | 0 |
| ***C0-08TA*** | 80 | 0 |
| ***C0-04TRS*** | 100 | 0 |
| ***C0-04TRS-10*** | 120 | 0 |
| ***C0-08TR*** | 100 | 0 |
| ***C0-08TR-3*** | 90 | 0 |

| I/O Module Current Consumption (continued) (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (logic side)* | *External 24 VDC (field side)* |
| ***Discrete Combo I/O Modules*** | | |
| ***C0-16CDD1*** | 80 | 50 |
| ***C0-16CDD2*** | 80 | 0 |
| ***C0-08CDR*** | 80 | 0 |
| ***Analog Input Modules*** | | |
| ***C0-04AD-1*** | 20 | 65 |
| ***C0-04AD-2*** | 23 | 65 |
| ***C0-04POT*** | 30 | 0 |
| ***C0-04RTD*** | 25 | 0 |
| ***C0-04THM*** | 25 | 0 |
| ***Analog Output Modules*** | | |
| ***C0-04DA-1*** | 20 | 145 |
| ***C0-04DA-2*** | 20 | 85 |
| ***Analog Combo I/O Modules*** | | |
| ***C0-4AD2DA-1*** | 25 | 75 |
| ***C0-4AD2DA-2*** | 20 | 65 |
| ***C-more Micro-Graphic Panel*** | | |
| ***Monochrome only*** | 90 | 0 |




Only monochrome models can be powered from port 2.

***Power Budgeting Example***

| Current Consumption (mA) Example | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (logic side)* | *External 24 VDC (field side)* |
| ***C2-03CPU*** | 130 | 0 |
| ***C2-14D1*** | 50 | 60 |
| ***C0-16ND3*** | 40 | 0 |
| ***C0-16TD1*** | 80 | 100 |
| ***C-more Micro*** | 90 | 0 |
| ***Total:*** | 390 | 160 * |

*** Add in calculated load of connected I/O devices.**

# ZIPLink® Wiring System for CLICK PLC Family

## Wiring Solutions using the *ZIP*Link Wiring System

***ZIP***Links eliminate the normally tedious process of wiring between devices by utilizing prewired cables and DIN rail mount connector modules. It's as simple as plugging in a cable connector at either end or terminating wires at only one end. Prewired cables keep installation clean and efficient, using half the space at a fraction of the cost of standard terminal blocks.

***ZIP***Links are available in a variety of styles to suit your needs, including feedthrough connector module. ***ZIP***Links are available for all Basic, Standard and Ethernet CLICK PLC units, select CLICK PLUS option slot modules, and most discrete and analog stackable I/O modules. Pre-printed I/O-specific adhesive label strips for quick marking of ***ZIP***Link modules are provided with ***ZIP***Link cables.

***Solution 1: CLICK PLC, CLICK PLUS PLC with Option Slot Module, and Stackable I/O Modules to ZIPLink Connector Modules***

When looking for quick and easy I/O-to-field termination, a ***ZIP***Link connector module used in conjunction with a prewired ***ZIP***Link cable, consisting of an I/O terminal block at one end and a multi-pin connector at the other end, is the best solution.

Use the "CLICK PLC PLC Unit ***ZIP***Link Selector" table and CLICK I/O ***ZIP***Link selector tables located in this section:

- Locate your PLC or I/O module.
- Select a ***ZIP***Link Module.
- Select a corresponding ***ZIP***Link Cable.

***Solution 2: CLICK/CLICK PLUS PLC I/O to 3rd Party Devices***

When wanting to connect PLC I/O (built-in, option slot module, or stackable) to another device within close proximity, no extra terminal blocks are necessary when using the ***ZIP***Link Pigtail Cables. ***ZIP***Link Pigtail Cables are prewired to an I/O terminal block with color-coded pigtail with soldered-tip wires on the other end.

Use the I/O Modules to 3rd Party Devices selector tables located in the ***ZIP***Link section:

- Locate your PLC or I/O module.
- Select a ***ZIP***Link Pigtail Cable that is compatible with your 3rd party device

***Solution 3: GS Series and DuraPulse Drives Communication Cables***

Need to communicate via Modbus RTU to a drive or a network of drives?

***ZIP***Link cables are available in a wide range of configurations for connecting to PLCs and SureServo, SureStep, Stellar Soft Starter and AC drives. Add a ***ZIP***Link communications module to quickly and easily set up a multi-device network.

Use the Drives Communication selector tables located in the ***ZIP***Link section:

- Locate your Drive and type of communications.
- Select a ***ZIP***Link cable and other associated hardware.

***Solution 4: Serial Communications Cables***

***ZIP***Link offers communications cables for use with CLICK PLCs and select CLICK PLUS PLCs that can also be used with other communications devices. Connections include a 6-pin RJ12 connector which can be used in conjunction with the RJ12 Feedthrough module.

Use the Serial Communications Cables selector table located in the ***ZIP***Link section:

- Locate your connector type
- Select a cable.

# ZIPLink® Wiring System for CLICK PLC Family

## CLICK PLC & CLICK PLUS Option Slot *ZIP*Link Selector

| PLC or Option Slot Module | | | ZIPLink | | |
|---|---|---|---|---|---|
| CLICK PLC Unit | CLICK PLUS Option Slot Module | # of Terms | Component | Module Part No. | Cable Part No. |
| C0-00DD1-D | NA | 20 | Feedthrough | ZL-RTB20, ZL-RTB20-1 | ZL-C0-CBL20 * |
| C0-00DD2-D | NA | | | | |
| C0-00DR-D | NA | | | | |
| C0-00AR-D | NA | | | | |
| C0-01DD1-D | NA | | | | |
| C0-01DD2-D | NA | | | | |
| C0-01DR-D | NA | | | | |
| C0-01AR-D | NA | | | | |
| C0-02DD1-D | NA | No *ZIP*Links are available for CLICK Analog PLC units. | | | |
| C0-02DD2-D | NA | | | | |
| C0-02DR-D | NA | | | | |
| C0-10DD1E-D | NA | 20 | Feedthrough | ZL-RTB20, ZL-RTB20-1 | ZL-C0-CBL20 * |
| C0-10DD2E-D | NA | | | | |
| C0-10DRE-D | NA | | | | |
| C0-10ARE-D | NA | | | | |
| C0-11DD1E-D | C2-14D1 | | | | |
| C0-11DD2E-D | C2-14D2 | | | | |
| C0-11DRE-D | C2-14DR(3) | | | | |
| C0-11ARE-D | C2-14AR(3) | | | | |
| NA | C2-14TTL | | | | |
| C0-12DD1E-D | C2-08D1-4VC | No *ZIP*Links are available for CLICK Ethernet Analog PLC units or CLICK PLUS Option Slot Modules with analog I/O. | | | |
| C0-12DD2E-D | C2-08D2-4VC | | | | |
| C0-12DRE-D | C2-08DR-4VC | | | | |
| C0-12ARE-D | C2-08AR-4VC | | | | |
| C0-12DD1E-1-D | C2-08D1-6C | | | | |
| C0-12DD2E-1-D | C2-08D2-6C | | | | |
| C0-12DRE-1-D | C2-08DR-6C | | | | |
| C0-12ARE-1-D | C2-08AR-6C | | | | |
| C0-12DD1E-2-D | C2-08D1-6V | | | | |
| C0-12DD2E-2-D | C2-08D2-6V | | | | |
| C0-12DRE-2-D | C2-08DR-6V | | | | |
| C0-12ARE-2-D | C2-08AR-6V | | | | |
| NA | C2-DCM | No *ZIP*Links are available for CLICK PLUS Option Slot Communications Module | | | |
| | C2-NRED | | | | |
| | C2-OPCUA | | | | |

***Table Notes:***

* Select the cable length by replacing the * with: Blank = 0.5m, -1 = 1.0m, or -2 = 2.0m.

1 Note: The C0-04TRS relay output is derated not to exceed 2A per point maximum when used with the *ZIP*Link wiring system.

2 Note: Fuses (5 x 20mm) are not included. See Edison Electronic Fuse section for 5 x 20mm fuse. S500 and GMA electronic circuit protection is recommended for fast-acting maximum protection. S506 and GMC electronic circuit protection is recommended for time-delay performance. Ideal for inductive circuits. To ensure proper operation, do not exceed the voltage and current rating of the *ZIP*Link module. ZL-RFU20 = 2A per circuit.

3 Note: The C2-14xR relay output is derated not to exceed 2A per common maximum when used with the *ZIP*Link wiring system.

## CLICK/CLICK PLUS PLC Discrete Input Module *ZIP*Link Selector

| I/O Module | | ZIPLink | | |
|---|---|---|---|---|
| Input Module | # of Terms | Component | Module Part No. | Cable Part No. |
| C0-08SIM | Not supported by *ZIP*Link | | | |
| C0-08ND3 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-08ND3-1 | | | | |
| C0-08NE3 | | | | |
| C0-08NA | | | | |
| C0-16ND3 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20 * |
| | | Sensor | ZL-LTB16-24-1 | |
| C0-16NE3 | 20 | Feedthrough | ZL-RTB20 | |
| | | Sensor | ZL-LTB16-24-1 | |

## CLICK/CLICK PLUS PLC Discrete Output Module *ZIP*Link Selector

| I/O Module | | ZIPLink | | |
|---|---|---|---|---|
| Output Module | # of Terms | Component | Module Part No. | Cable Part No. |
| C0-08TD1 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-08TD2 | | | | |
| C0-08TR | | | | |
| C0-08TR-3 | Not supported by *ZIP*Link | | | |
| C0-08TA | | | | |
| C0-16TD1 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20* |
| | | Fuse | ZL-RFU20 2 | |
| | | Relay (sinking) | ZL-RRL16-24-1 | |
| C0-16TD2 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20* |
| | | Fuse | ZL-RFU20 2 | |
| | | Relay (sourcing) | ZL-RRL16-24-2 | |
| C0-04TRS1 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20* |
| C0-04TRS-10 | Not supported by *ZIP*Link | | | |

## CLICK/CLICK PLUS PLC Combo I/O Module *ZIP*Link Selector

| I/O Module | | ZIPLink | | |
|---|---|---|---|---|
| Combo Module | # of Terms | Component | Module Part No. | Cable Part No. |
| C0-16CDD1 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20 * |
| C0-16CDD2 | | | | |
| C0-08CDR | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |

## CLICK/CLICK PLUS PLC Analog I/O Module *ZIP*Link Selector

| I/O Module | | ZIPLink | | |
|---|---|---|---|---|
| Analog Module | # of Terms | Component | Module Part No. | Cable Part No. |
| C0-04AD-1 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-04AD-2 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-04POT | 0 | No *ZIP*Links are available for RTD and thermocouple modules. | | |
| C0-04RTD | 20 | | | |
| C0-04THM | 11 | | | |
| C0-04DA-1 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-04DA-2 | 11 | Feedthrough | ZL-RTB20 | ZL-C0-CBL11 * |
| C0-4AD2DA-1 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20 * |
| C0-4AD2DA-2 | 20 | Feedthrough | ZL-RTB20 | ZL-C0-CBL20 * |

# Accessories

***C2-USER-M*** ***$0.00***
***CLICK PLUS PLC Hardware User Manual***

Manual covers all CLICK PLUS PLC and I/O module installation and wiring, specifications, error codes and troubleshooting guide. The CLICK PLUS PLC Hardware User Manual can be downloaded free at the AutomationDirect Web site; www.AutomationDirect.com

***C0-USER-M*** ***$0.00***
***CLICK PLC Hardware User Manual***

Manual covers all CLICK PLC and I/O module installation and wiring, specifications, error codes and troubleshooting guide. The CLICK PLC Hardware User Manual can be downloaded free at the AutomationDirect Web site; www.AutomationDirect.com

***C0-PGMSW*** ***$12.00***
***Programming Software USB***

The programming software can be downloaded free at the AutomationDirect Web site, or the USB can be purchased from the AutomationDirect online Web store. www.AutomationDirect.com

***EA-MG-PGM-CBL*** ***$56.00***
***PC to Panel Programming Cable Assembly for C-more Micro-Graphic Panels and CLICK/CLICK PLUS PLCs***

The 6-ft cable assembly connects a personal computer to any ***C-more*** Micro-Graphic panel, CLICK PLC, or select CLICK PLUS PLC for setup and programming.

***Note: This cable assembly uses the PC's USB port and converts the signals to serial transmissions. The USB port supplies 5 VDC to the Micro-Graphic panel for configuration operations.*** Assembly includes standard USB A-type connector to B-type connector cable, custom converter, and an RS232C cable with an RJ12 modular connector on each end.

***USB-CBL-AMICB6*** ***$5.75***
***USB A to USB microB Programming Cable Assembly (CLICK PLUS Only)***

Programming cable, USB A to USB microB, 6ft [1.83m] length. For use with CLICK PLUS PLCs and most USB devices. The USB port supplies 5 VDC to the CLICK PLUS CPU for programming.

***D2-DSCBL*** ***$42.00***
***Programming Cable for CLICK/CLICK PLUS and DirectLOGIC PLCs***

12ft [3.66m] RS232 shielded PC programming cable for CLICK, select CLICK PLUS PLCs, DL05, DL06, DL105, DL205, D3-350, D4-450, D4-454, and Do-more H2 and T1H series CPUs. 9-pin D-shell female connector to an RJ12 6P6C connector.

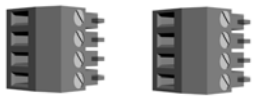
***Note: If your PC has a USB port but does not have a serial port, you must use programming cable EA-MG-PGM-CBL to connect to CLICK PLCs. For CLICK PLUS PLCs, you may also use USB-CBL-AMICB6***

***C0-3TB*** ***$11.50***
***Spare 3-Pole Terminal Block***

Replacement 3-pole terminal block for the 3-wire RS-485 Port 3 on CLICK Standard and Analog PLCs as well as the CLICK PLUS C2-03CPU. Sold in packs of 2.

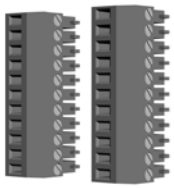
***C0-4TB*** ***$11.50***
***Spare 24 VDC Power Terminal Block***

Replacement terminal block for the 24 VDC supply power to the PLC. Sold in packs of 2.



***C0-8TB*** ***$17.50***
***Spare 8-Point I/O Terminal Block***

Replacement terminal block for the 8-point I/O modules. Sold in packs of 2.

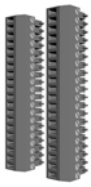


***C0-8TB-1*** ***$20.50***
***Spare 13-Point I/O Terminal Block***

Replacement terminal block for the 8-point I/O relay modules. Sold in packs of 2.

***C0-16TB*** ***$25.00***
***Spare 16-Point I/O Terminal Block***

Replacement terminal block for the 16-point I/O modules and PLC built-in I/O. Sold in packs of 2.



***C2-6TB*** ***$17.50***
***Spare 6-pt Terminal Block***

Replacement terminal block for the C2-DCM serial ports.
Sold in packs of 2.

# Accessories



***SE-ANT250*** ***$48.00***
***Wi-Fi/Bluetooth Dome Antenna***

2.4 GHz antenna, IP67, panel mount, 9.8ft [3m] cable length, for external mounting when CLICK PLUS PLC is installed in a metallic enclosure.

***C2-FILL*** ***$9.50***
***CPU Option Slot Cover***

Snap-on cover for CLICK PLUS CPU Option Slot in applications without an Option Slot module present.

***MSD-SLC16G*** ***$89.00***
16 GB microSD card, industrial grade, 3D NAND Flash (with SLC Mode), 85 °C [185 °F] max operating temp.

***SE-ANT210*** ***$13.00***
***Wi-Fi/Bluetooth Whip Antenna***

Whip/straight 2.4 GHz antenna, IP65, connector mount. Not recommended for installation in a metallic enclosure.

***D2-BAT-1*** ***$10.00***
Replacement CR2354 battery for Standard, Analog, Ethernet Standard and Ethernet Analog PLC units.

***TW-SD-MSL-2*** ***$4.50***
***Insulated Slotted Screwdriver***
0.4 x 2.5 x 80mm slotted screwdriver for terminal blocks.

***DN-EB35MN*** ***$36.50***
***DIN****nector* ***End Bracket***

***D0-MC-BAT*** ***$3.25***
Replacement CR2032 battery for CLICK PLUS PLC units.

***DN-WS*** ***$87.00***
***Wire Stripper***

***C-more and C-more Micro Graphic Operator Interfaces***

***ZIPLink Wiring Systems***

***Ethernet Cables***
Pre-terminated Cat5e Ethernet patch cables with RJ45 connectors provide dependable communication in industrial applications. These cables are available in various lengths and support transmission speeds of 10/100/1000 Mbps.