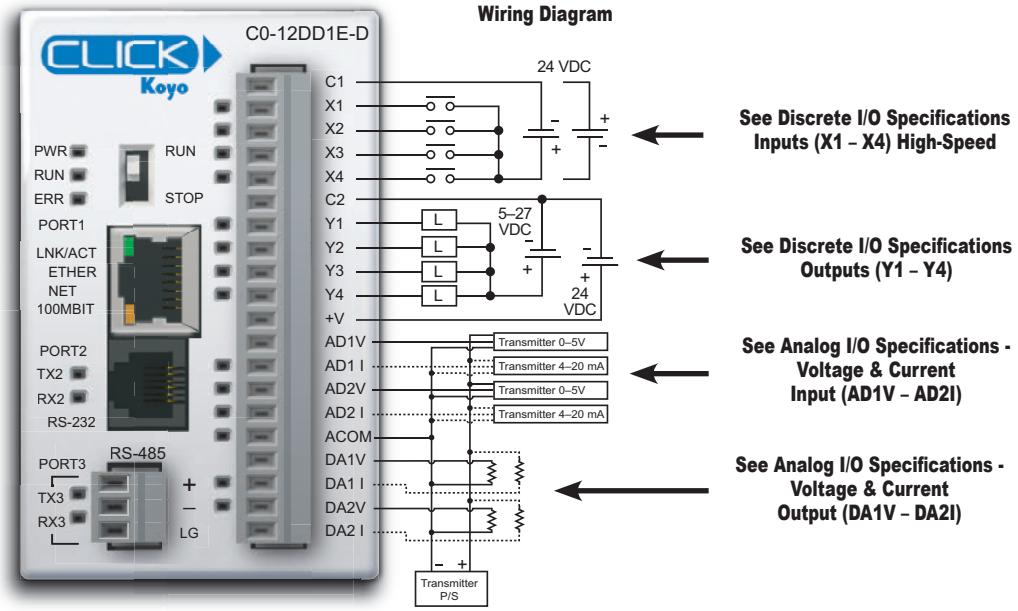
# Ethernet Analog PLC

## C0-12DD1E-D $278.00

***4 DC Input (Sink/Source)/4 Sinking DC Output;***
***2 Analog Voltage/Current Input***
***2 Analog Voltage/Current Output Micro PLC***




**NOTE:** There are no ***ZIP***Link pre-wired PLC connection cables and modules for the Analog PLCs (cannot mix discrete I/O and analog I/O signals in a ***ZIP***Link cable).
**NOTE:** When using Ethernet Analog PLCs, you must use CLICK programming software version V2.20 or later.

***IMPORTANT:*** *USE ONLY ONE TERMINAL (VOLTAGE OR CURRENT) PER CHANNEL. YOU MUST ALSO SELECT THE ANALOG TYPE (VOLTAGE OR CURRENT) IN THE CPU BUILT-IN I/O SETUP IN THE CLICK PROGRAMMING SOFTWARE (PULL-DOWN MENU SETUP > CPU BUILT-IN I/O SETUP).*

| General Specifications | |
|---|---|
| ***Current Consumption at 24 VDC*** | 140 mA |
| ***Terminal Block Replacement Part No.*** | C0-16TB |
| ***Drawing Link*** | PDF |
| ***Weight*** | 5.1 oz [145g] |

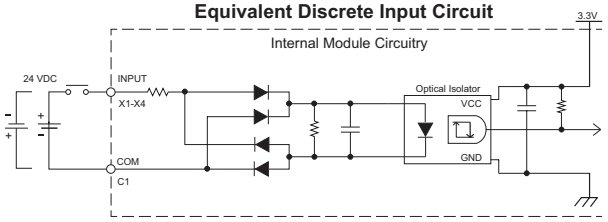
# Ethernet Analog PLC

## C0-12DD1E-D (cont'd)

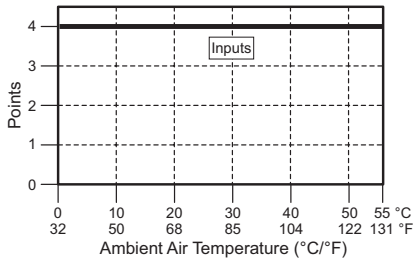
### *X1 - X4 (High-Speed)*

| Discrete I/O Specifications - Inputs | |
|---|---|
| ***Inputs per Module*** | 4 (Sink/Source) |
| ***Operating Voltage Range*** | 24 VDC |
| ***Input Voltage Range*** | 21.6–26.4 VDC |
| ***Input Current*** | Typ 6.5 mA @ 24 VDC |
| ***Maximum Input Current*** | 7.0 mA @ 26.4 VDC |
| ***Input Impedance*** | 3.9 kΩ @ 24 VDC |
| ***Input Frequency (Max)*** | X1–4: 100 kHz |
| ***ON Voltage Level*** | > 19 VDC |
| ***OFF Voltage Level*** | < 2 VDC |
| ***Minimum ON Current*** | 4.5 mA |
| ***Maximum OFF Current*** | 0.5 mA |
| ***OFF to ON Response*** | Typ 3 µs Max 5 µs |
| ***ON to OFF Response*** | Typ 1 µs Max 3 µs |
| ***Status Indicators*** | Logic Side (4 points, green LED) |
| ***Commons*** | 1 (4 points/common) |

**Equivalent Discrete Input Circuit**



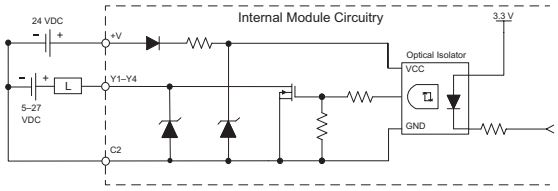

**C0-12DD1E-D Temperature Derating Chart**



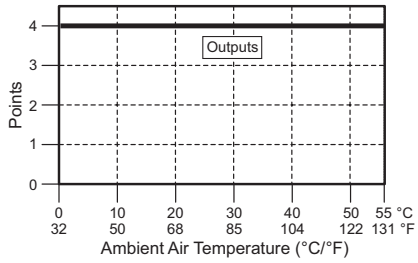

### *Y1 - Y4*

| Discrete I/O Specifications - Outputs | |
|---|---|
| ***Outputs per Module*** | 4 (Sink) |
| ***Operating Voltage Range*** | 5–27 VDC |
| ***Maximum Output Current*** | 0.1 A/point; 0.4 A/common |
| ***Minimum Output Current*** | 0.2 mA |
| ***Maximum Leakage Current*** | 0.1 mA @ 30.0 VDC |
| ***On Voltage Drop*** | 0.5 VDC @ 0.1A |
| ***Maximum Inrush Current*** | 150 mA for 10 ms |
| ***OFF to ON Response*** | < 5 µs |
| ***ON to OFF Response*** | < 5 µs |
| ***Status Indicators*** | Logic Side (4 points, red LED) |
| ***Commons*** | 1 (4 points/common) |
| ***External DC Power Required*** | 20–28 VDC Maximum @ 60 mA (all points on) |

**Equivalent Discrete Output Circuit**




**C0-12DD1E-D Temperature Derating Chart**



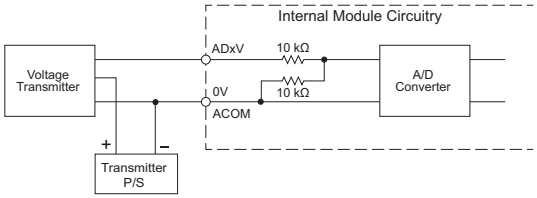
# Ethernet Analog PLC

## C0-12DD1E-D (cont'd)

### AD1V - AD2V

| Analog Specifications - Voltage Input | |
|---|---|
| ***Inputs per Module*** | 2 (voltage/current selectable) |
| ***Input Range*** | 0–5 VDC (6 VDC Max.) |
| ***Resolution*** | 12-bit |
| ***Conversion Time*** | 50 ms |
| ***Input Impedance*** | 20 kΩ |
| ***Input Stability*** | ±2 LSB maximum |
| ***Full-Scale Calibration Error*** | ±2% maximum |
| ***Offset Calibration Error*** | ±25 mV maximum |
| ***Accuracy vs. Temperature Error*** | ±100 ppm / °C maximum |

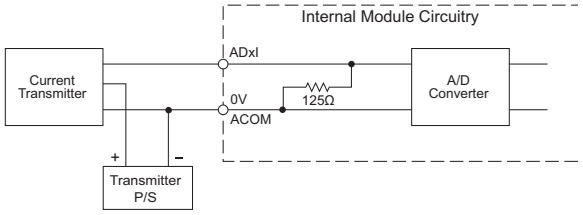
**Analog Voltage Input Circuit**




### AD1I - AD2I

| Analog Specifications - Current Input | |
|---|---|
| ***Inputs per Module*** | 2 (voltage/current selectable) |
| ***Input Range*** | 4–20 mA (sink) |
| ***Resolution*** | 12-bit |
| ***Conversion Time*** | 50 ms |
| ***Input Impedance*** | 125Ω |
| ***Input Stability*** | ±2 LSB |
| ***Full-Scale Calibration Error*** | ±2% maximum |
| ***Offset Calibration Error*** | ±0.1 mA maximum |
| ***Accuracy vs. Temperature Error*** | ±100 ppm / °C maximum |

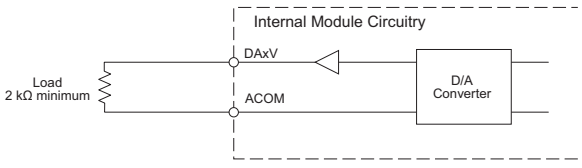
**Analog Current Input Circuit**




### DA1V - DA2V

| Analog Specifications - Voltage Output | |
|---|---|
| ***Outputs per Module*** | 2 (voltage/current selectable) |
| ***Output Range*** | 0–5 VDC |
| ***Resolution*** | 12-bit |
| ***Conversion Time*** | 1 ms |
| ***Load Impedance*** | 2 kΩ minimum (output current 2.5 mA maximum) |
| ***Full-Scale Calibration Error*** | ±2% maximum |
| ***Offset Calibration Error*** | ±25 mV maximum |
| ***Accuracy vs Temperature Error*** | ±100 ppm / °C maximum |

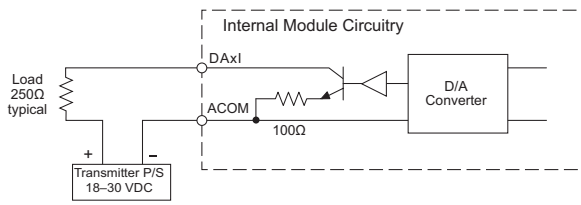
**Analog Voltage Output Circuit**




### DA1I - DA2I

| Analog Specifications - Current Output | |
|---|---|
| ***Outputs per Module*** | 2 (voltage/current selectable) |
| ***Output Range*** | 4–20 mA (sink) |
| ***Resolution*** | 12-bit |
| ***Conversion Time*** | 1 ms |
| ***Loop Supply Voltage*** | DC 18–30V |
| ***Load Impedance*** | 250Ω<br>Load Power Supply:<br>DC 18V: 600Ω maximum<br>DC 24V: 900Ω maximum<br>DC 30V: 1200Ω maximum |
| ***Full-Scale Calibration Error*** | ±2% maximum |
| ***Offset Calibration Error*** | ±25 mA maximum |
| ***Accuracy vs Temperature Error*** | ±100 ppm / °C maximum |

**Analog Current Output Circuit**



# 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

| Ethernet Basic, Standard and Analog PLC Unit Specifications | | | |
|---|---|---|---|
| | ***Ethernet Basic PLC*** | ***Ethernet Standard PLC*** | ***Ethernet 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)*** | < 0.2 µs | < 0.2 µs | < 0.2 µs |
| ***Typical Scan (1K Boolean)*** | < 1 ms | < 1 ms | < 1 ms |
| ***RLL Ladder Style Programming*** | Yes | Yes | Yes |
| ***Run Time Edits*** | Yes | Yes | Yes |
| ***Scan*** | Variable / fixed | Variable / fixed | Variable / fixed |
| ***CLICK Programming Software for Windows*** | Yes | Yes | Yes |
| ***Built-in Communication Ports*** | Yes (one Ethernet port and one RS-232 port) | Yes (one Ethernet port, one RS-232 port and one RS-485 port) | Yes (one Ethernet port, one RS-232 port and one RS-485 port) |
| ***Protocols*** | Modbus RTU (master/slave) and ASCII (in/out), Modbus TCP (client/server), EtherNet/IP Implicit and Explicit (adapter server) | | |
| ***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 or 4 inputs; 2 outputs |
| ***Number of High-Speed Input Points*** | 4 | 8 | 4 |
| ***Number of High-Speed Counters*** | 4 | 6 | 4 |
| ***PID Control Loops*** | 8 | 8 | 8 |
| ***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 + Battery | Super Capacitor + Battery | Super Capacitor + Battery |
| ***Battery Backup*** | Yes (battery part # D2-BAT-1) | Yes (battery part # D2-BAT-1) | Yes (battery part # D2-BAT-1) |
| ***Calendar/Clock*** | Yes | 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 | | | | |

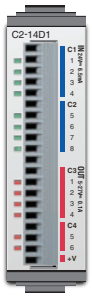
# CLICK PLC Family Overview

## 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

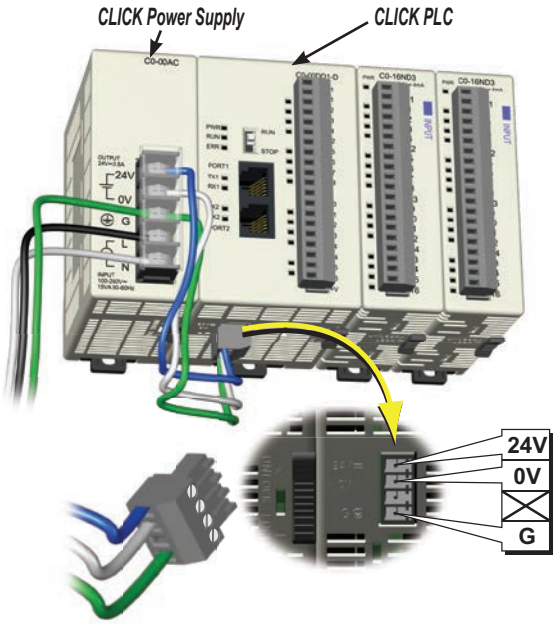
The CLICK PLC family offers a 24 VDC power supply. It is not mandatory to use the CLICK power supply for the CLICK/CLICK PLUS PLC system. You can use any other 24 VDC power supply that Automationdirect.com offers, including the PSP24-DC12-1 12 to 24 VDC converter shown below.

***C0-01AC 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.**

**C0-01AC**

| CLICK 24 VDC Power Supply Ratings | | |
|---|---|---|
| ***Part Number*** | ***Output Current*** | ***Price*** |
| ***C0-01AC*** | 1.3A | $73.00 |

| Power Supply Input Specifications | |
|---|---|
| ***Part Number*** | ***C0-01AC*** |
| ***Input Voltage Range*** | 85–264 VAC |
| ***Input Frequency*** | 47–63 Hz |
| ***Input Current (typical)*** | 0.9A @ 100 VAC,<br>0.6A @ 200 VAC |
| ***Inrush Current*** | 30A |
| ***Efficiency*** | 80% typical |

| Power Supply Output Specs | |
|---|---|
| ***Part Number*** | ***C0-01AC*** |
| ***Output Voltage Range*** | 23–25 VDC |
| ***Output Current*** | 1.3A |
| ***Ripple*** | 200 mV p-p max (0–55 °C) |
| ***Ripple Noise*** | 300 mV p-p max (0–55 °C) |
| ***Over Current Protection*** | @ 1.6A<br>(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*** | ***C0-01AC*** |
| ***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 |
| ***Weight*** | 6.0 oz [170g] |

**PSP24-DC12-1**

| 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**
**C0-01AC**

**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

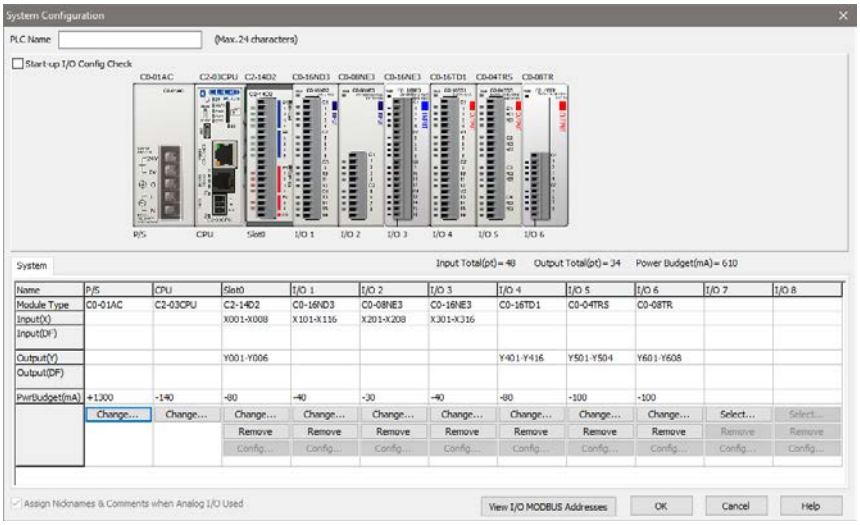
| CLICK PLUS Option Slot Modules Current Consumption (mA) | | |
|---|---|---|
| *Part Number* | *Power Budget 24 VDC (Logic Side)* | *External 24 VDC (Field Side)* |
| ***Option Slot I/O Modules*** | | |
| C2-14D1 | 50 | 60 |
| C2-14D2 | 50 | 0 |
| C2-14DR | 75 | 0 |
| C2-14AR | 75 | 0 |
| C2-14TTL | 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 |

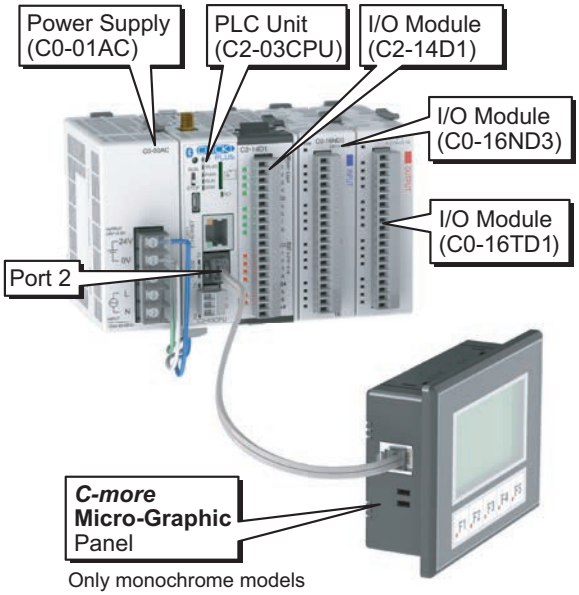
# Power Budgeting

## 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.**

# 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.

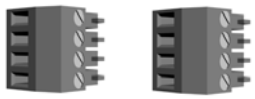
***Note: If your PC has a USB port but does not have a serial port, you must use programming cable EA-MG-PGM-CBL to connect to CLICK PLCs. For CLICK PLUS PLCs, you may also use USB-CBL-AMICB6***

***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.

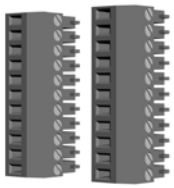
***C0-4TB*** ***$11.50***
***Spare 24 VDC Power Terminal Block***

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.

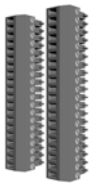


***C0-8TB-1*** ***$20.50***
***Spare 13-Point I/O Terminal Block***

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.

***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.