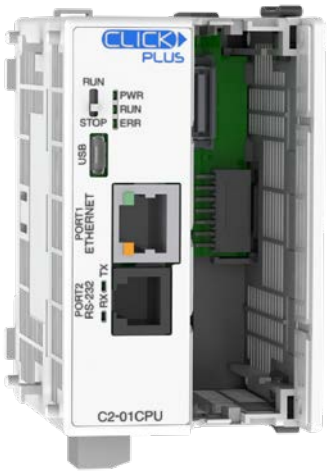
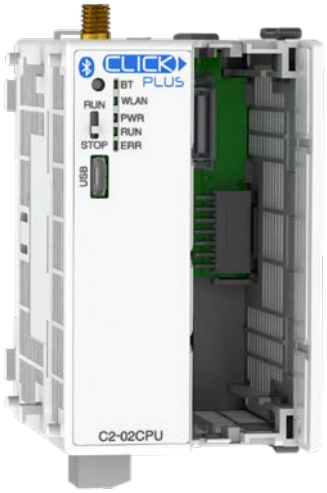
CLICK PLUS PLC Specifications

PLC Unit Specifications (continued)

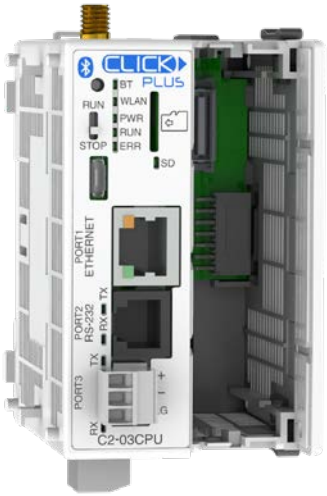
C2-01CPU



C2-02CPU



C2-03CPU



CLICK PLUS PLC Unit Specifications				
		C2-01CPU	C2-02CPU	C2-03CPU
Control Method		Stored Program/Cyclic execution method		
I/O Numbering System		Fixed in Decimal		
Ladder Memory (steps)		8000		
Total Data Memory (words)		8000		
Contact Execution (boolean)		< 0.2 µs		
Typical Scan (1k boolean)		< 1ms		
RLL Ladder Style Programming		Yes		
Run Time Edits		Yes		
Scan		Variable / fixed		
PLC Mode Switch		1 (RUN/STOP)		
FLASH Memory		Standard on PLC		
Protocol	***Modbus RTU (master/slave)***	Yes	No	Yes
	ASCII (in/out)	Yes	No	Yes
	Modbus TCP (client server)	Yes	Yes	Yes
	EtherNet/IP Implicit and Explicit (adapter server)	Yes	No	Yes
MQTT		Publisher: 4 Publishers, 3 blocks each Subscriber: 10 blocks		
Data Logging		N/A	N/A	Time, Date, 16 Addresses
CLICK Programming Software		Yes (Windows)		
Number of Instructions Available		21		
Control Relays		2000		
System Control Relays		1000		
Timers		500		
Counters		250		
Interrupt		Yes (external: 8 / timed: 4)		
Subroutines		Yes		
For/Next Loops		Yes		
Math (Integer and Hex)		Yes		
Drum Sequencer Instruction		Yes		
Internal Diagnostics		Yes		
Password Security		Yes		
System Error Log		Yes		
User Error Log		No		
Memory Backup		Super Capacitor + Battery		
Battery Backup		Yes (battery part #D0-MC-BAT)		
Calendar/Clock		Yes		

CLICK PLUS PLC Specifications

PLC Unit Specifications (continued)

CLICK PLUS PLC Unit Specifications				
		C2-01CPU	C2-02CPU	C2-03CPU
I/O Slot	Internal I/O	N/A (Optional)		
	Option Slot Support	Yes		
	Expansion I/O	Yes (max. 8 modules)		
Com. Ports	USB Port (Programming)	Yes (Device) (For programming and providing 5VDC power, micro-B USB)		
	Ethernet (RJ45)	Yes (10/100)	No	Yes (10/100)
	Serial Port RS-232 (RJ12)	Yes	No	Yes
	Serial Port RS-485 (Terminal Block)	No		Yes
	WLAN	No	Yes (RP-SMA connection for optional external antenna, shared)	
	Bluetooth	No		
Status Indicators	WLAN Status LED	None	1	
	Bluetooth Status LED	None	1	
	CPU Status LED	3 (PWR/RUN/ERR)		
	Ethernet Status LED	2 (LINK/ACT 10/100)		
	Serial Status LED	2 (TX/RX)	None	2 (TX/RX)
	SD Card Status LED	None		1
Other	Micro SD Card Slot (SDHC Compatible)	No		Yes
Power	Nominal Input Voltage	24VDC (4-pin terminal block)		
	Operating Voltage Range	24VDC, Class 2 or SELV (Safety Extra-Low Voltage) or Limited Energy Circuit power supply		
	Input Voltage Range	20.0–28.0 VDC		
	Maximum Inrush Current	30A @ 1ms		
	Power Consumption	20W	20W	20W
	Acceptable External Power Drop	Max 10ms (AC Power Failure with C0-00AC or C0-01AC)		
	Current Required	110mA	105mA	130mA
	Fuse	None		
	External Fuse Recommended	No		
	Polarity Protection	Power input is reverse polarity protected		
	USB Supply	5VDC (via USB programming port)		
Communication Port & Terminal Block Replacement		N/A	N/A	AutomationDirect p/n C0-3TB
24VDC Power Terminal Block Replacement		AutomationDirect p/n C0-4TB		
Antenna Requirements		N/A	2.4 GHz antenna, RP-SMA connector (AutomationDirect p/n SE-ANT250 or SE-ANT210)	
Weight		3.5 oz [99g]	3.3 oz [94g]	4.0 oz [114g]

CLICK PLUS PLC Specifications

General Specifications For All CLICK PLUS PLC Products

These general specifications apply to all CLICK PLUS PLCs. Please refer to the appropriate I/O temperature derating charts under the Option Slot module and Stackable I/O module specifications to determine best operating conditions based on the ambient temperature of your particular application.

General Specifications	
Operating Temperature	32°F to 131°F (0°C to 55°C)
Storage Temperature	–4°F to 158°F (–20°C to 70°C) IEC 60068-2-1 (Test Ab, Cold) IEC 60068-2-2 (Test Bb, Dry Heat) 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)
Environment	For Indoor Use Only
Vibration	IEC60068-2-6 (Test Fc) 5–9Hz:3.5mm amplitude, 9–150Hz 1.0G 10 sweep cycles per axis on each of 3 mutually perpendicular axes.
Shock	IEC60068-2-27 (Test Ea) 15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes.
Voltage Withstand (Dielectric)	1000VAC, 1 minute (between G and 24V IN)
Insulation Resistance	500VDC, 10M ohm (between G and 24V IN)
Noise Immunity	<EN61131-2> EN61000-4-2 (ESD): 4kV(Contact Discharge) 8kV(Air Discharge) EN61000-4-3 (RFI): 10V/m (80MHz–1GHz) ,3V/m (1.4 GHz–2.0 GHz) 1V/m (2.0 GHz–2.7 GHz) EN61000-4-4 (FTB) : 2kV ,positve/negative , 5kHz (DC Power Port) 1kV ,positve/negative, 5kHz (I/O and Communication Port) EN61000-4-5 (Surge): 0.5 kV/1kV line to line 0.5 kV/1kV line to earth EN61000-4-6 (Conducted): 10V ,0.15 MHz – 80MHz EN61000-4-8 (Power frequency magnetic field immunity) : 30A/m <Local Test> Impulse Immunity : 1000V @ 1µs pulse
Emissions	EN55011 Class A (Radiated RF emission)
Agency Approvals	UL61010 (File No. E157382, E316037); CE (EN61131-2); CUL Canadian C22.2
Radio Standards	FCC part15C (US), RED Article3.2 (CE), IC RSS-247 (Canada), MIC Item 19 of Article 2-1 (Japan), AS/NZS 4268 (Australia/New Zealand)
Other	RoHS 2011/65/EU Amendment (EU)2015/863

CLICK PLUS PLC Specifications

CLICK PLUS PLC Hardware/Software Compatibility

The table below shows the minimum software and hardware versions required for the CLICK PLUS PLCs and Option Slot Modules. The CLICK PLUS PLC can also utilize the CLICK Stackable I/O Modules, as any software and hardware version compatible with CLICK PLUS is also compatible with the CLICK Stackable I/O Modules.

CLICK PLUS PLC Features Software Compatibility					
		Minimum CLICK Software Version			
Device Type	Part Number	Hardware	High-Speed Inputs	EtherNet/IP	PID, DHCP, DNS, SNTP, MQTT
CLICK PLUS CPU	C2-01CPU	v3.00	v3.00	v3.00	v3.00
	C2-02CPU			N/A	
	C2-03CPU			v3.00	
Option Slot I/O Modules	C2-14D1	v3.00	v3.00	N/A	N/A
	C2-14D2				
	C2-14DR				
	C2-14AR		N/A		
	C2-08D1-4VC	v3.00	v3.00	N/A	N/A
	C2-08D2-4VC				
	C2-08DR-4VC				
	C2-08AR-4VC		N/A		
	C2-08D1-6C	v3.00	v3.00	N/A	N/A
	C2-08D2-6C				
	C2-08DR-6C				
	C2-08AR-6C		N/A		
	C2-08D1-6V	v3.00	v3.00	N/A	N/A
	C2-08D2-6V				
	C2-08DR-6V				
	C2-08AR-6V		N/A		

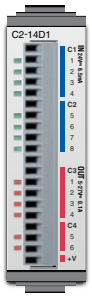
CLICK PLC Family Overview

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 24VDC 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 (cross-over) 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 micro B 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 24VDC 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 24VDC power supply that Automationdirect.com offers, including the PSP24-DC12-1 12 to 24 VDC converter shown below.

C0-00AC Power Supply

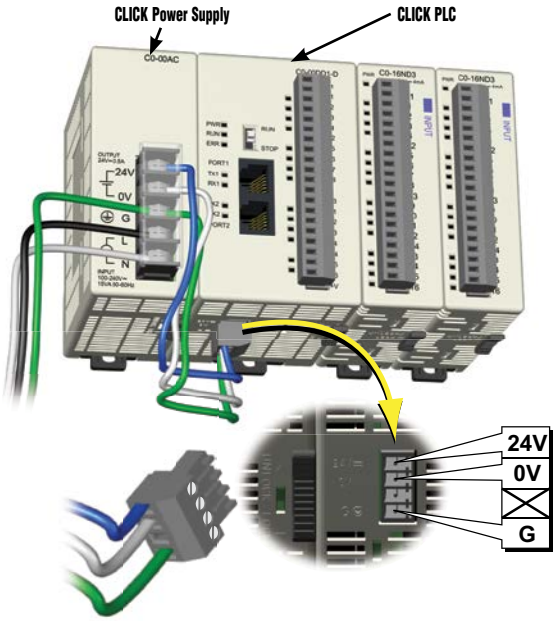
Limited auxiliary AC power supply allows you to power the 24VDC CLICK C0 and C2 series PLCs with 100–240 VAC supply power. The 0.5 A DC power supply is capable of controlling the PLC plus a limited configuration based on the power budget of each I/O module. The C0-00AC is a low-cost solution for applications 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 24VDC CLICK C0 and C2 series PLCs with 100–240 VAC supply power. The 1.3 A 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 12VDC input power.



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

C0-00AC

C0-01AC

CLICK 24VDC Power Supply Ratings		
Part Number	**Output Current**	**Price**
C0-00AC	0.5 A	$31.00
C0-01AC	1.3 A	$42.50

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

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

C0-00AC Power Supply General Specifications		
Part Number	***C0-00AC***	***C0-01AC***
Ambient Operating Temperature	32–131°F [0–55°C]	
Storage Temperature	-4–158°F [-20–70°C]	
Humidity	30–95%, non-condensing	
Vibration Resistance	JIS C60068-2-6, sine wave vibration	
Shock Resistance	JIS C60068-2-27	
Voltage Withstand		
Input-Output	1500VAC, 5mA cutoff current	
Input-Ground	1500VAC, 5mA cutoff current	
Output-Ground	500VAC, 5mA cutoff current	
Insulation Resistance		
Input-Output	10MΩ minimum, 500VDC	
Input-Ground	10MΩ minimum, 500VDC	
Output-Ground	5MΩ minimum, 500VDC	
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	
Weight	5.3 oz [150g]	6.0 oz [170g]

PSP24-DC12-1

PSP24-DC12-1 DC-DC Converter Specifications	
Input Voltage Range	9.5–18 VDC
Input Power (no load)	1.0 W max.
Startup Voltage	8.4 VDC
Undervoltage Shutdown	7.6 VDC
Output Voltage Range	24–28 VDC (adjustable)
Output Current	1.0 A
Short Circuit Protection	Current limited at 110% typical
Weight	7.5 oz (213g)

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 **$11.00**

Programming Software CD-ROM

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

EA-MG-PGM-CBL **$46.50**

PC to Panel Programming Cable Assembly for C-more Micro-Graphic Panels and CLICK/CLICK PLUS PLCs

The 6ft 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 5VDC to the Micro-Graphic panel for configuration operations.

Assembly includes standard USB A-type connector to B-type connector cable, custom converter, and a RS232C cable with RJ12 modular connector on each end.

USB-CBL-AMICB6 **$3.75**

USB A to USB micro B Programming Cable Assembly (CLICK PLUS Only)

Programming Cable, USB A to USB micro B, 6ft. (1.83 m) length. For use with CLICK PLUS PLCs and most USB devices. The USB port supplies 5VDC to the CLICK PLUS CPU for programming.

D2-DSCBL **$24.00**

Programming Cable for CLICK/CLICK PLUS and *Direct*LOGIC PLCs 12ft. (3.66 m) 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 **$7.75**

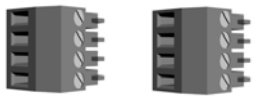
Spare 3-Pole Terminal Block

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 **$7.75**

Spare 24VDC Power Terminal Block

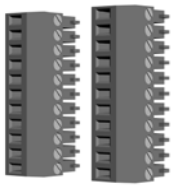
Replacement terminal block for the 24VDC supply power to the PLC. Sold in packs of 2.



C0-8TB **$13.50**

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 **$15.00**

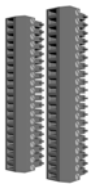
Spare 13-Point I/O Terminal Block

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

C0-16TB **$18.50**

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.



Accessories

SE-ANT250 **$42.50**

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.

SE-ANT210 **$9.00**

Wi-Fi/Bluetooth Whip Antenna

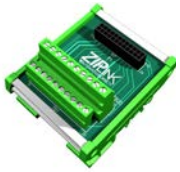
Whip/straight 2.4 GHz antenna, IP65, connector mount. Not recommended for installation in a metallic enclosure.

DN-EB35MN **$21.50**

DINnectors End Bracket

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

*ZIP*Link Wiring Systems



C2-FILL **$8.00**

CPU Option Slot Cover

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

D2-BAT-1 **$5.75**

Replacement battery for Standard, Analog, Ethernet Standard and Ethernet Analog PLC units.

D0-MC-BAT **$3.00**

Replacement battery for CLICK PLUS PLC units.

DN-WS **$57.00**

Wire Stripper

TW-SD-MSL-2 **$3.00**

Insulated Slotted Screwdriver

0.4 x 2.5 x 80 mm slotted screwdriver for terminal blocks.