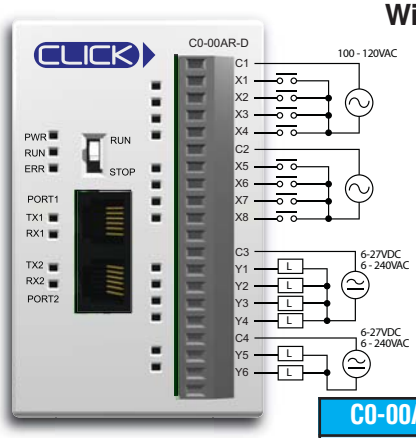
CLICK CPU Module Specifications

C0-00AR-D

8 AC Inputs/6 Relay Outputs

CLICK PLC CPU, 8 AC input/6 Relay output, 8K steps total program memory, Ladder Logic programming, built-in RS232C programming port and additional RS232C Modbus RTU/ASCII communications port (configurable up to 115200 baud). Inputs: 8-pts 100-120 VAC, 2 commons, isolated. Outputs: 6-pts 6-240 VAC/6-27 VDC Form A (SPST) relays, 1 A/pt, 2 commons, isolated. Removable terminal block included, replacement ADC p/n C0-16TB.

Wiring Diagram

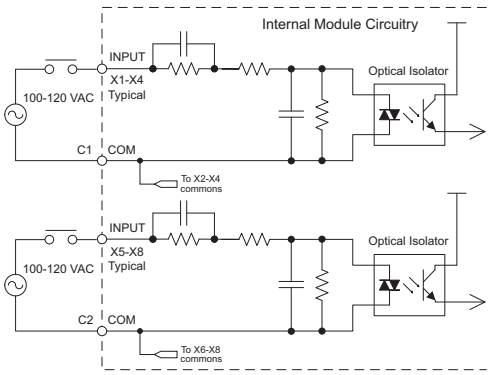


C0-00AR-D - 24 VDC Power	
Current Consumption	120 mA

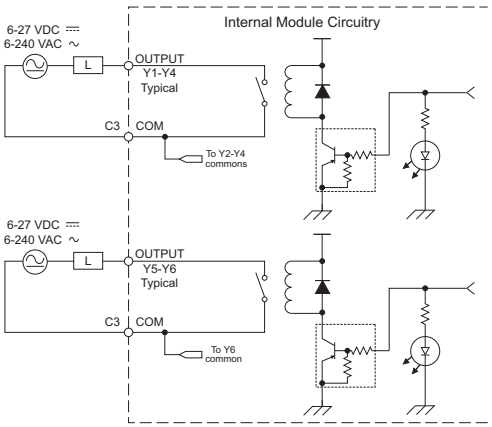
C0-00AR-D Built-in I/O Specifications - Inputs	
Inputs per Module	8
Operating Voltage Range	100-120 VAC
Input Voltage Range	80-144 VAC
AC Frequency	47-63 Hz
Input Current	8.5 mA @ 100 VAC at 50 Hz 10 mA @ 100 VAC at 60 Hz
Maximum Input Current	16 mA @ 144 VAC at 55 Hz
Input Impedance	15 kΩ @ 50 Hz 12 kΩ @ 60 Hz
ON Voltage Level	> 60 VAC
OFF Voltage Level	< 20 VAC
Minimum ON Current	5 mA
Maximum OFF Current	2 mA
OFF to ON Response	< 40 ms
ON to OFF Response	< 40 ms
Status Indicators	Logic Side (8 points, green LED)
Commons	2 (4 points/common) Isolated

C0-00AR-D Built-in I/O Specifications - Outputs	
Outputs per Module	6
Operating Voltage Range	6-240 VAC (47-63 Hz), 6-27 VDC
Output Type	Relay, form A (SPDT)
Maximum Current	1 A/point; C3: 4 A/common, C4: 2 A/common
Minimum Load Current	5 mA @ 5 VDC
Maximum Inrush Current	3 A for 10 ms
OFF to ON Response	< 15 ms
ON to OFF Response	< 15 ms
Status Indicators	Logic Side (6 points, red LED)
Commons	2 (4 points/com & 2 points/com) Isolated

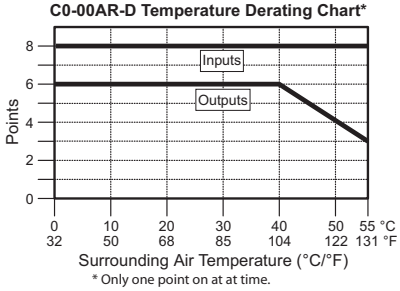
Equivalent Input Circuit



Equivalent Output Circuit



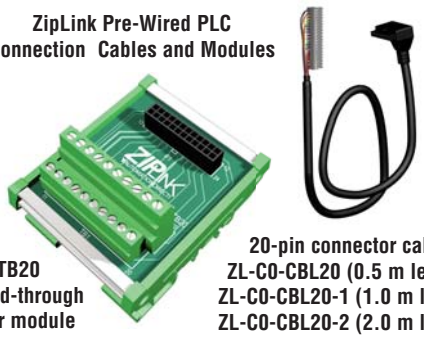
C0-00AR-D Temperature Derating Chart*



* Only one point on at at time.

Typical Relay Life (Operations) at Room Temperature	
Voltage & Load Type	Load Current: 1 A
30 VDC Resistive	300,000 cycles
30 VDC Solenoid	50,000 cycles
250 VAC Resistive	500,000 cycles
250 VAC Solenoid	200,000 cycles
ON to OFF = 1 cycle	

ZipLink Pre-Wired PLC Connection Cables and Modules



ZL-RTB20
20-pin feed-through connector module

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

CLICK Specifications

General specifications (all CLICK PLC products)

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

Environmental Specifications	
Operating Temperature	32°F to 131°F (0°C to 55°C) IEC 60068-2-14 (Test Nb, Thermal Shock)
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 The level for the environmental pollution is 2 (UL840)
Vibration	MIL STD 810C, Method 514.2 IEC60068-2-6 JIS C60068-2-6 (Sine wave vibration test)
Shock	MIL STD 810C, Method 516.2 IEC60068-2-27 JIS C60068-2-27
Noise Immunity	Comply with NEMA ICS3-304 Impulse noise 1µs, 1000V EN61000-4-2 (ESD) EN61000-4-3 (RFI) EN61000-4-4 (FTB) EN61000-4-5 (Surge) EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) RFI: No interference measured between 150-450MHz (5w/15cm)
Emissions	EN55011:1998 Class A
Agency Approvals	UL508 CE (EN61131-2)
Other	RoHS instruction conformity

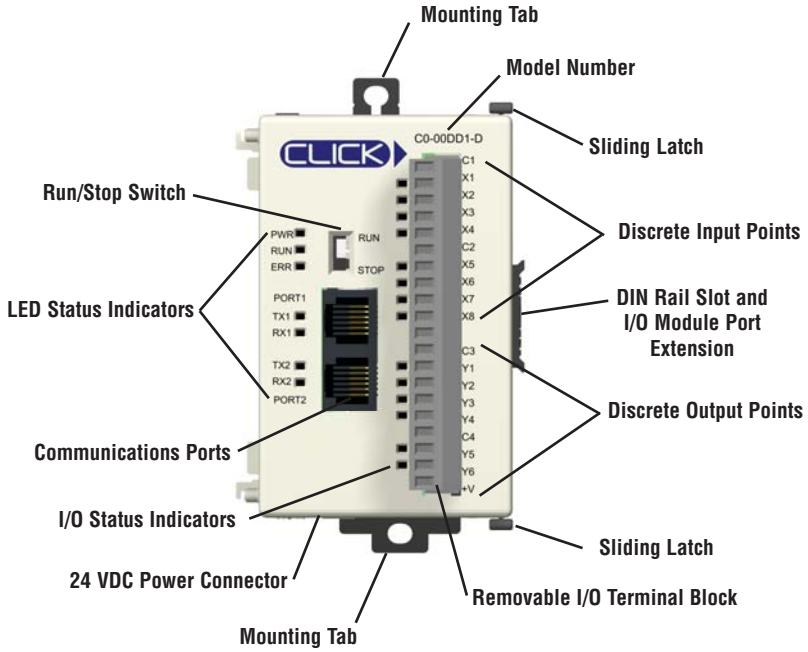
CPU module specifications

These specifications apply to all the CPU modules.

CPU Module Specifications	
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)	< 0.6us
Typical Scan (1k boolean)	1-2 ms
RLL Ladder Style Programming	Yes
Run Time Edits	No
Scan	Variable / fixed
CLICK Programming Software for Windows	Yes
Built-in Communication Ports (RS-232)	Yes (2)
FLASH Memory	Standard on CPU
Built-in Discrete I/O points	8 inputs, 6 outputs
Number of Instructions Available	21
Control Relays	2000
Special Relays (system defined)	1000
Timers	500
Counters	250
Immediate I/O	Yes
Interrupts (external / timed)	Yes
Subroutines	Yes
For/Next Loops	Yes
Math (Integer and Floating Point)	Yes
Drum Sequencer Instruction	Yes
Internal Diagnostics	Yes
Password Security	Yes
System Error Log	Yes
User Error Log	Yes
Memory Backup	Super Capacitor
Battery Backup	No
I/O Terminal Block Replacement	ADC p/n C0-16TB
AC Power Terminal Block Replacement	ADC p/n C0-4TB

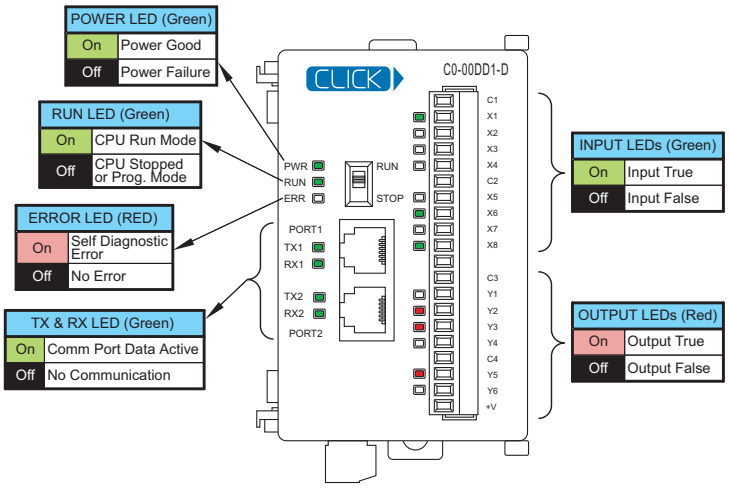
CLICK Specifications

CPU features



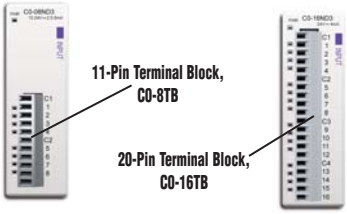
CPU LED status indicators

CLICK LED Status Indicators



I/O Terminal block specifications for CPUs and I/O Modules

11-pin Terminal Block Specifications	
Connector Type	Pluggable Terminal Block
Number of Pins	11 pt
Pitch	3.50 mm
Wire Range	28-16 AWG
Wire Strip Length	7 mm
Screw Size	M2.0
Screw Torque	2.0 to 2.2 lb-inch
ADC Part Number	C0-8TB



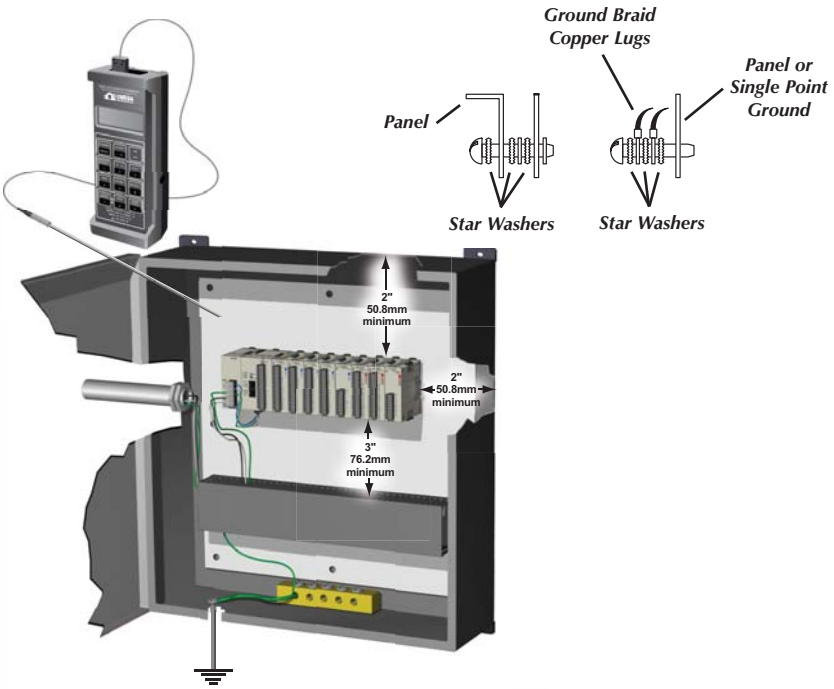
20-pin Terminal Block Specifications	
Connector Type	Pluggable Terminal Block
Number of Pins	20 pt
Pitch	3.50 mm
Wire Range	28-16 AWG
Wire Strip Length	7 mm
Screw Size	M2.0
Screw Torque	2.0 to 2.2 lb-inch
ADC Part Number	C0-16TB

Product Dimensions and Installation

It is important to understand the installation requirements for your CLICK system. Your knowledge of these requirements will help ensure that your system operates within its environmental and electrical limits.

Plan for safety

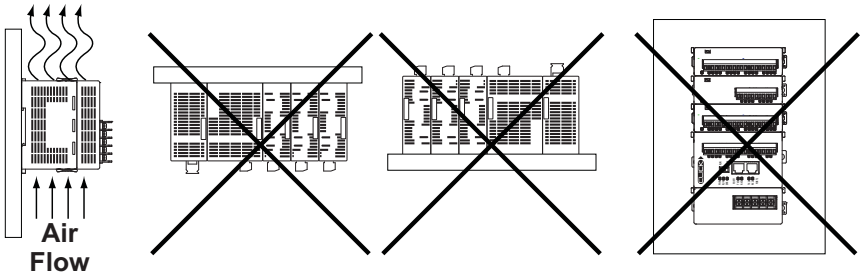
This catalog should never be used as a replacement for the user manual. You can purchase, download free, or view online the user manuals for these products. The C0-USER-M is the publication for the CLICK PLC. This user manual contains important safety information that must be followed. The system installation should comply with all appropriate electrical codes and standards.



NOTE: *There is a mimimum clearance requirement of 2" (51 mm) between the CLICK PLC and the panel door or any devices mounted in the panel door. The same clearance is required between the PLC and any side of the enclosure. A minimum clearance of 3" (76 mm) is required between the PLC and a wireway or any heat producing device.*

Mounting orientation

CLICK PLCs must be mounted properly to ensure ample airflow for cooling purposes. It is important to follow the unit orientation requirements and to verify that the PLC's dimensions are compatible with your application. Notice particularly the grounding requirements and the recommended cabinet clearances.

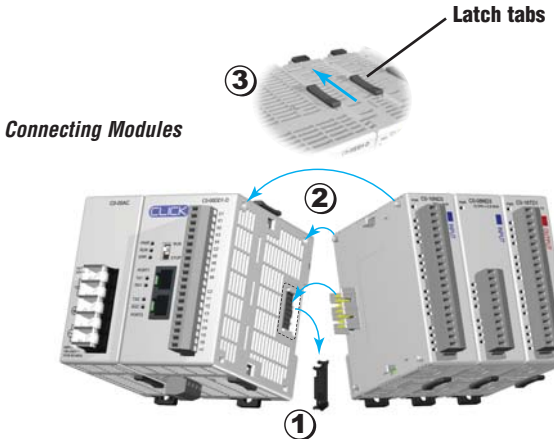


Product Dimensions and Installation

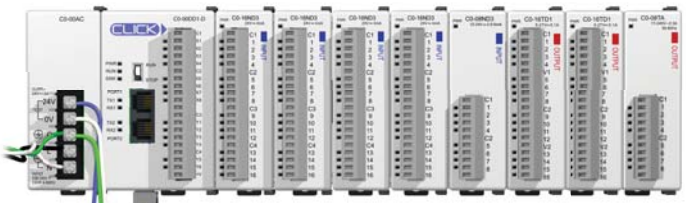
Connecting the modules together

CLICK CPUs, I/O modules and power supplies connect together using the extension ports that are located on the side panels of the modules (no PLC backplane/base required).

1) Remove extension port covers and slide the latch tabs forward.
2) Align the module pins and connection plug, and press the I/O module onto the right side of the CPU.
3) Slide the latch tabs backward to lock the modules together.



Connecting Modules



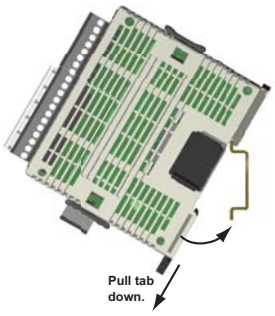
Supports up to eight I/O modules

Mounting

The CLICK PLC system, which includes the CLICK power supplies, CPU modules, and I/O modules, can be mounted in one of two ways.

1) DIN rail mounted
2) Surface mounted using the built-in upper and lower mounting tabs.

DIN Rail Mounting



Surface Mounting

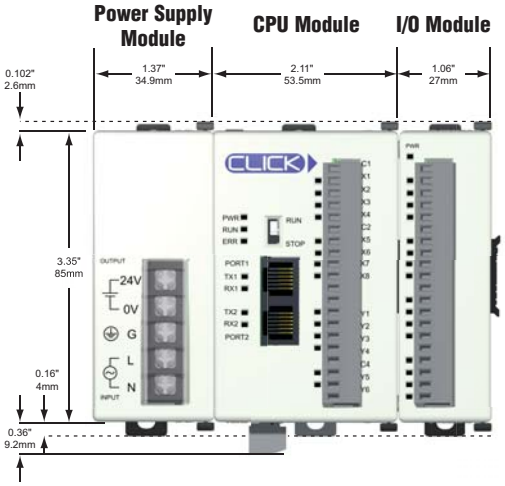
Unit dimensions

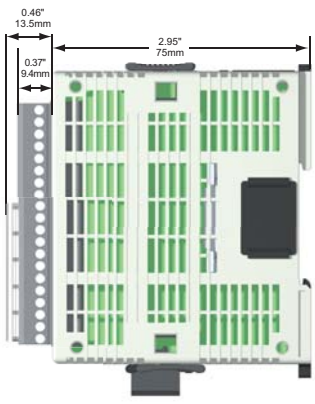
These diagrams show the outside dimensions of the CLICK power suppy, CPU, and I/O modules. The CLICK PLC system is designed to be mounted on standard 35mm DIN rail, or it can be surface mounted.

Allow proper spacing from other components within an enclosure.

Maximum system:

Power Supply + CPU + 8 I/O modules.

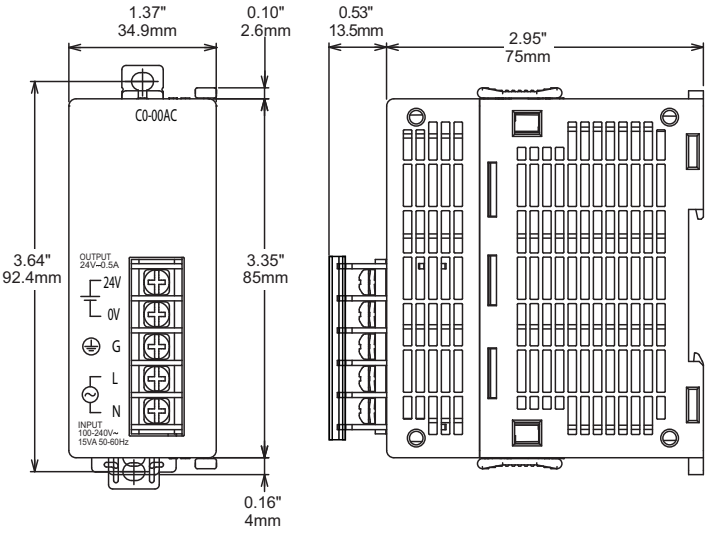




Product Dimensions and Installation

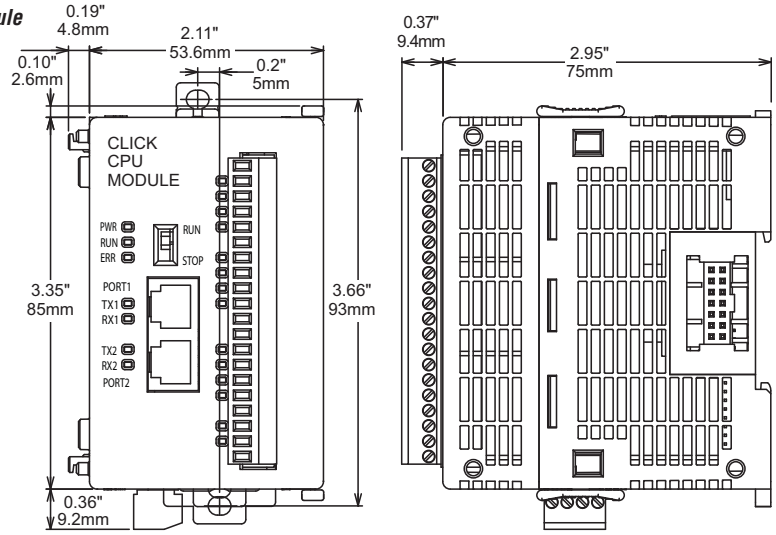
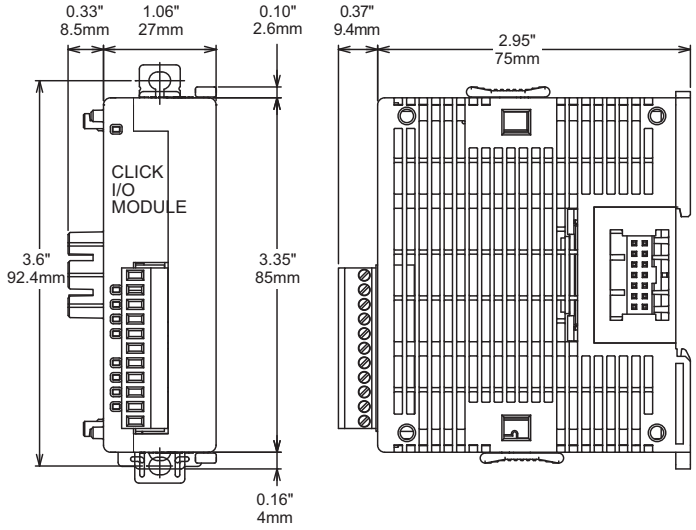
Unit dimensions

Power Supply



NOTE: *The dimensions for the C0-00AC and C0-01AC power supplies are the same.*

CPU Module



I/O Module