

# CLICK PLUS Option Slot Module Specifications

**C2-08DR-6V**

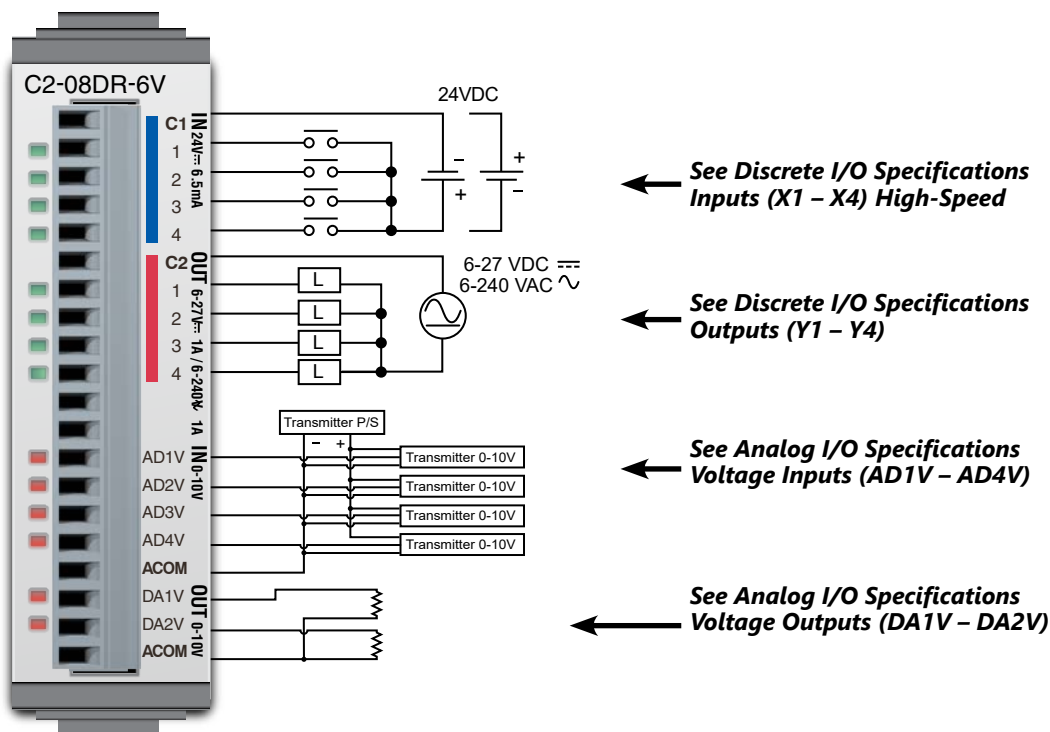
**\$103.00**

**4 DC Input / 4 Relay Output  
4 Analog Voltage Input  
2 Analog Voltage Output  
Option Slot I/O Module**



**NOTE:** Use this module and a CLICK PLUS CPU as a comparable replacement for the existing C0-12DRE-2-D PLC.

**Wiring Diagram**



← **See Discrete I/O Specifications  
Inputs (X1 - X4) High-Speed**

← **See Discrete I/O Specifications  
Outputs (Y1 - Y4)**

← **See Analog I/O Specifications  
Voltage Inputs (AD1V - AD4V)**

← **See Analog I/O Specifications  
Voltage Outputs (DA1V - DA2V)**



**NOTE:** There are no ZIPLink pre-wired PLC connection cables and modules for the Analog Option Slot Modules (cannot mix discrete I/O and analog I/O signals in a ZIPLink cable).

General Specifications	
Current Consumption at 24VDC	80mA max (All Points On)
Terminal Block Replacement Part No.	<a href="#">C0-16TB</a>
Drawing Link	<a href="#">PDF</a>
Weight	57g

# CLICK PLUS Option Slot Module Specifications

## C2-08DR-6V (cont'd)

### X1 - X4 (High-Speed)

Discrete I/O Specifications - Inputs	
<b>Inputs per Module</b>	4 (Sink/Source)
<b>Operating Voltage Range</b>	24VDC
<b>Input Voltage Range</b>	21.6–26.4 VDC
<b>Input Current</b>	Typ 6.5 mA @ 24VDC
<b>Maximum Input Current</b>	7mA @ 26.4 VDC
<b>Input Impedance</b>	3.9 kΩ @ 24VDC
<b>Input Frequency (Max)</b>	X1-X4: 100kHz (3m cable)
<b>ON Voltage Level</b>	> 19VDC
<b>OFF Voltage Level</b>	< 2VDC
<b>Minimum ON Current</b>	4.5 mA
<b>Maximum OFF Current</b>	0.5 mA
<b>OFF to ON Response</b>	Typ 3μs, Max 5μs
<b>ON to OFF Response</b>	Typ 1μs, Max 3μs
<b>Status Indicators</b>	Logic Side (4 points, green LED)
<b>Commons</b>	1 (4 points/common)

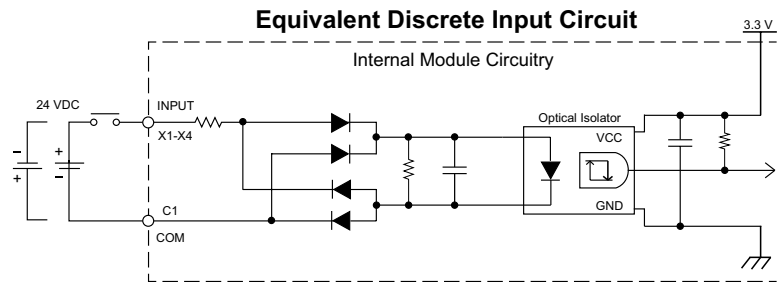
Maximum Number of High Speed Counters	
<b>Up</b>	4
<b>Down</b>	4
<b>Up/Down</b>	2
<b>Pulse/Direction</b>	2
<b>Quadrature A-B</b>	2
<b>Quadrature A-B+Z</b>	1

### Y1 - Y4

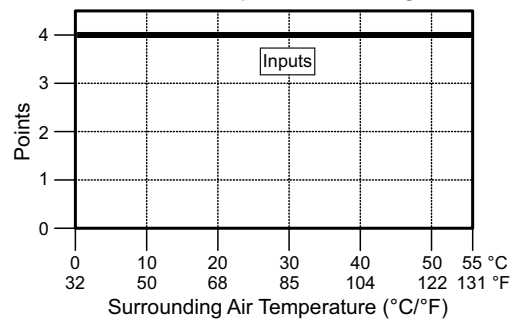
Discrete I/O Specifications - Outputs	
<b>Outputs per Module</b>	4
<b>Operating Voltage Range</b>	6–27 VDC / 6–240 VAC
<b>Output Type</b>	Relay, form A (SPST)
<b>AC Frequency</b>	47–63 Hz
<b>Maximum Current</b>	1A/point (resistive)
<b>Minimum Load Current</b>	5mA @ 5VDC
<b>Maximum Inrush Current</b>	3A for 10ms
<b>OFF to ON Response</b>	< 15ms
<b>ON to OFF Response</b>	< 15ms
<b>Status Indicators</b>	Logic Side (4 points, red LED)
<b>Commons per Module</b>	1 (4 points/ common)

Typical Relay Life (Operations) at Room Temperature	
Voltage & Load Type	Load Current: 1 A
<b>30VDC Resistive</b>	200,000 cycles*
<b>30VDC Inductive</b>	100,000 cycles*
<b>250VAC Resistive</b>	200,000 cycles*
<b>250VAC Inductive</b>	50,000 cycles*

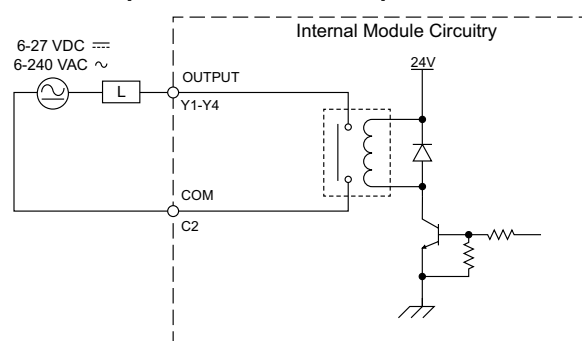
\*ON to OFF = 1 cycle



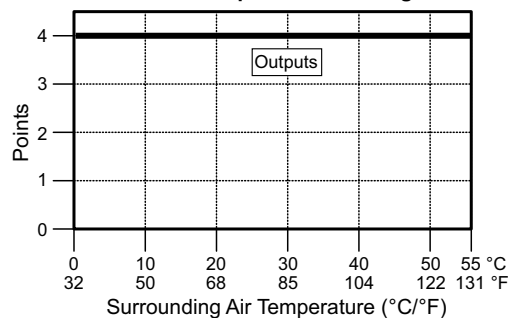
C2-08DR-6V Temperature Derating Chart



Equivalent Discrete Output Circuit



C2-08DR-6V Temperature Derating Chart



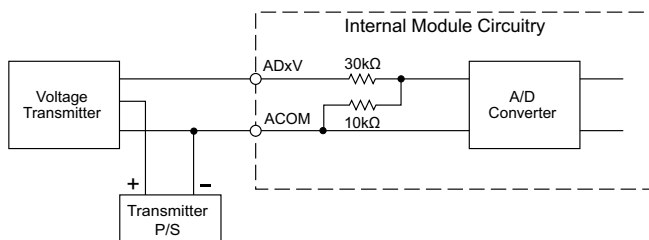
# CLICK PLUS Option Slot Module Specifications

## C2-08DR-6V (cont'd)

### AD1V - AD4V

Analog Specifications - Voltage Input	
Inputs per Module	4 (voltage)
Input Range	0-10 VDC
Resolution	12-bit
Conversion Time	50ms
Input Impedance	40kΩ
Input Stability	±2 LSB maximum
Full-Scale Calibration Error	±2% maximum
Offset Calibration Error	±25mV maximum
Accuracy vs. Temperature Error	±100ppm/°C maximum

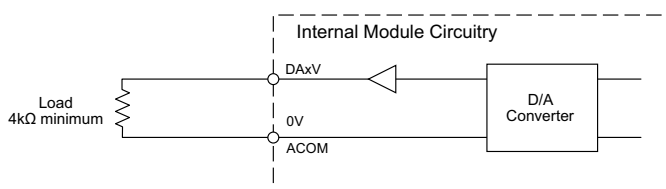
Analog Voltage Input Circuit



### DA1V - DA2V

Analog Specifications - Voltage Output	
Outputs per Module	2 (voltage)
Output Range	0-10 VDC
Resolution	12-bit
Conversion Time	1ms
Load Impedance	4kΩ minimum (output current 2.5 mA maximum)
Full-Scale Calibration Error	±2% maximum
Offset Calibration Error	±25mV maximum
Accuracy vs. Temperature Error	±100ppm/°C maximum

Analog Voltage Output Circuit



### Insulation Requirements for IEC/UL 61010-1 and 61010-2-201 (sections 6.5 and 6.7)

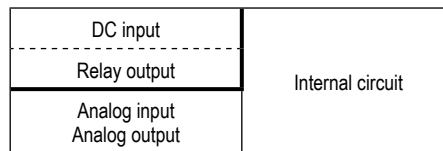
#### Input to Output Insulation

Basic insulation is provided between the Relay Output and the closest Input terminal. When connecting the Relay Output to a circuit that exceeds 100VAC (141VDC) more than the closest input circuit an additional basic insulation layer must be added to the input circuit.

#### Additional Basic Insulation Examples

- Supplementary Insulation: Interposing relay, additional insulating material,... (sec. 6.5.3)
- Automatic Disconnection of the Supply: Properly sized breaker (sec. 6.5.5)
- Current or Voltage Limiting device: Properly sized fuse (sec. 6.5.6)

Basic insulation requires a clearance distance of 1.5 mm or more, a creepage distance of 2.5 mm or more, and dielectric voltage withstand of 1500Vrms.



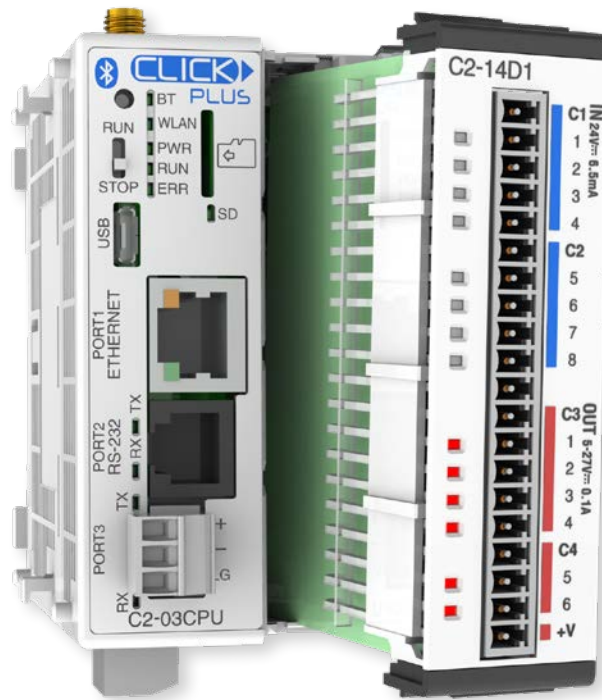
- : No insulation
- - - : Basic insulation
- : Reinforced insulation

# CLICK PLUS Option Slot Module Specifications

## General Specifications For All CLICK PLUS Option Slot Modules

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

Option Slot Module General Specifications	
<b>Operating Temperature</b>	32°F to 131°F [0°C to 55°C]
<b>Storage Temperature</b>	-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)
<b>Ambient Humidity</b>	30% to 95% relative humidity (non-condensing)
<b>Environmental Air</b>	No corrosive gases. Environmental pollution level is 2 (UL840)
<b>Environment</b>	For Indoor Use Only
<b>Vibration</b>	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.
<b>Shock</b>	IEC60068-2-27 (Test Ea) 15G peak, 11ms duration, 3 shocks in each direction per axis, on 3 mutually perpendicular axes.
<b>Noise Immunity</b>	<EN61131-2> EN61000-4-2 (ESD) EN61000-4-3 (RFI) EN61000-4-4 (FTB) EN61000-4-6 (Conducted) EN61000-4-8 (Power frequency magnetic field immunity) <Local Test> Impulse Immunity : 1000V @ 1uS pulse
<b>Emissions</b>	EN55011 Class A (Radiated RF emission)
<b>Agency Approvals</b>	UL61010 (File No. E157382, E316037); CE (EN61131-2); CUL Canadian C22.2
<b>Other</b>	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						
Device Type	Part Number	Minimum CLICK Software Version				
		Hardware	High-Speed Inputs*	High-Speed Outputs*	EtherNet/IP	PID, DHCP, DNS, SNTP, MQTT
CLICK PLUS CPU	<a href="#">C2-01CPU</a>	v3.00	v3.00	v3.30	v3.00	v3.00
	<a href="#">C2-02CPU</a>				N/A	
	<a href="#">C2-03CPU</a>				v3.00	
	<a href="#">C2-01CPU-2</a>	v3.20	v3.20		v3.20	v3.20
	<a href="#">C2-02CPU-2</a>				N/A	
	<a href="#">C2-03CPU-2</a>				v3.20	
Option Slot I/O Modules	<a href="#">C2-14D1</a>	v3.00	v3.00	v3.30	N/A	N/A
	<a href="#">C2-14D2</a>			N/A		
	<a href="#">C2-14DR</a>					
	<a href="#">C2-14AR</a>					
	<a href="#">C2-08D1-4VC</a>	v3.00	v3.00	v3.30	N/A	N/A
	<a href="#">C2-08D2-4VC</a>			N/A		
	<a href="#">C2-08DR-4VC</a>					
	<a href="#">C2-08AR-4VC</a>					
	<a href="#">C2-08D1-6C</a>	v3.00	v3.00	v3.30	N/A	N/A
	<a href="#">C2-08D2-6C</a>			N/A		
	<a href="#">C2-08DR-6C</a>					
	<a href="#">C2-08AR-6C</a>					
	<a href="#">C2-08D1-6V</a>	v3.00	v3.00	v3.30	N/A	N/A
	<a href="#">C2-08D2-6V</a>			N/A		
	<a href="#">C2-08DR-6V</a>					
	<a href="#">C2-08AR-6V</a>					
Option Slot Intelligent Modules	<a href="#">C2-DCM</a>	v3.20	N/A	N/A	N/A	N/A

\* High-speed Inputs and Outputs are only available when the Option Slot I/O Module is installed in Slot 0.

# 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](http://www.AutomationDirect.com)



**C0-USER-M \$0.00**  
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**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](http://www.AutomationDirect.com)



**EA-MG-PGM-CBL \$52.00**  
**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 5VDC 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 \$5.25**  
**USB A to USB microB Programming Cable Assembly (CLICK PLUS Only)**

Programming cable, USB A to USB microB, 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 \$35.00**  
**Programming Cable for CLICK/CLICK PLUS and DirectLOGIC 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*

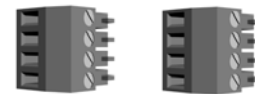
**C0-3TB \$10.00**  
**Spare 3-Pole Terminal Block**

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.



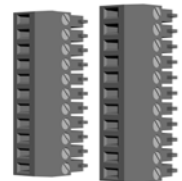
**C0-4TB \$10.00**  
**Spare 24VDC Power Terminal Block**

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



**C0-8TB \$16.50**  
**Spare 8-Point I/O Terminal Block**

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



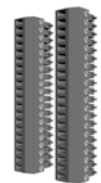
**C0-8TB-1 \$19.50**  
**Spare 13-Point I/O Terminal Block**

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



**C0-16TB \$23.00**  
**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 \$16.50**  
**Spare 6-pt Terminal Block**

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

