## **CLICK I/O Module Specifications**

### C0-08TD1

#### 8-Point Sinking DC Output Module

8-pt 3.3-27 VDC current sinking output module, 2 commons, isolated, 0.3 A/pt, removable terminal block included (replacement ADC p/n C0-08TB).

#### Wiring Diagram



CO-08TD1 Output	t Specifications
Outputs per Module	8 (Sink)
Operating Voltage Range	3.3-27 VDC
Output Voltage Range	2.8-30 VDC
Maximum Output Current	0.3 A/point , 1.2 A/common
Minimum Output Current	0.5 mA
Maximum Leakage Current	0.1 mA @ 30.0 VDC
On Voltage Drop	1.5 VDC @ 0.3 A
Maximum Inrush Current	1 A for 10 ms
OFF to ON Response	< 0.5 ms
ON to OFF Response	< 0.5 ms
Status Indicators	Logic Side (8 points, red LED) Power Indicator (green LED)
Commons	2 (4 points/common) Isolated
External DC Power Required	21.6-26.4 VDC Max 15 mA (All Outputs On)
Bus Power Required (24 VDC)	Max. 50 mA (All Outputs On)
Terminal Block Replacement	ADC p/n CO-8TB
Weight	2.8 oz (80 g)



**Output Module Temperature Derating Chart** 





**ZipLink Pre-Wired PLC Connection** 

ZL-CO-CBL11 (0.5 m length) ZL-CO-CBL11-1 (1.0 m length) ZL-CO-CBL11-2 (2.0 m length)



## **Power Budgeting**

### Power budgeting

There are two areas to be considered when determining the power required to operate a CLICK PLC system. The first area is the power required by the CLICK CPU, along with the internal logic side power that the CPU provides to its own I/O and any connected I/O modules that are powered through the CPU's expansion port, plus any device, such as a C-more Micro-Graphic panel, that is powered through one of the CPU's communication 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 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 that the 24 VDC power source needs to provide to CLICK's logic side, and also a separate calculation of the total current required from all devices operating from the field side of the PLC system.

See the Power Budgeting example shown to the right, which includes tables listing the CLICK CPU and I/O module current requirements.

#### **Power Budgeting Using the CLICK Programming Software**

The following example shows the logic side current consumption as calculated in the CLICK Programming software. Based on the amperage rating of the power supply selected in the first column, your power budget is calculated by subtracting each consecutive module's power consumption from the total available power budget. If you exceed the maximum allowable power consumption the power budget row is highlighted in red.

> Power budget row turns red if maximum allowable power consumption is exceeded for your power supply.



**CLICK 24 VDC Power Supply** CO-OOAC or CO-O1AC

Current Consumption (mA)		
Part Number	Power Budget 24 VDC (logic side)	External 24 VDC (field side)
CPU Modules		
<i>CO-00DD1-D</i>	120	60
<i>C0-00DD2-D</i>	120	0
CO-OODR-D	120	0
CO-OOAR-D	120	0
Input Modules		
CO-08ND3	30	0
CO-08ND3-1	30	0
CO-16ND3	40	0
CO-08NA	30	0

#### (Example)

Current Consumption (mA) Example		
Part Number	Power Budget 24 VDC (logic side)	External 24 VDC (field side)
CO-00DD1-D	120	60
CO-16ND3	40	0
CO-16TD1	80	100
C-more Micro	90	0
Total: 330 160		160 *
* Plus calculated load of connected I/O devices.		





PLC Overview

CLICK PLC

DL105 PLC

DI 205 PLC

DL305 PLC

DL405 PLC

Field I/O

Other HMI

AC Drives

Proximity

Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Process

Relays/

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index

Pushbuttons/ Lights

Other 24 VDC Power Supply Example: PSP24-60S

Current Consumption (mA)		Software		
Part Number	Power Budget 24 VDC (logic side)	External 24 VDC (field side)	C-more HMIs	
Output Modules			Other HM	
CO-08TD1	50	15		
CO-08TD2	50	0	AC Drive	
CO-16TD1	80	100		
CO-16TD2	80	0	Motors	
CO-08TA	80	0	WIOTOIS	
CO-O4TRS	100	0	04	
<i>CO-08TR</i>	100	0	Steppers	
C-more Micro-Graphic Panel				
All p/n	90	0	Motor Controls	







# Five-second PLC wiring system

## Cut your PLC wiring time down to minutes instead of hours

The *ZIP*Link wiring system eliminates the normally tedious process of wiring PLC I/O to terminal blocks. Simply plug one end of a *ZIP*Link pre-wired terminal block cable into your CLICK module and the other end into a *ZIP*Link connector module. It's that easy. *ZIP*Links use half the space, at a fraction of the total cost of 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 CLICK CPU modules and all discrete input and output modules.

\*Note: only the feedthrough module ZIPlink currently available.

### Specify your **ZIP**Link system

Use the Compatibility Matrix table below:

Step 1	Locate the CLICK CPU module or I/O module part number.
Step 2	Locate compatible connector module type.
Step 3	Select the cable length by replacing the $\#$ symbol with: Blank = 0.5m, -1 = 1.0m, -2 = 2.0m

	ZipLink Wiring System Compatibility Matrix for CLICK PLCs		
	Step 2: Connector Module Type		Feedthrough Module
	Ston 1. 1/0 unit	Number of	ZL-RTB20
	Step 1: 1/0 unit Terminals	Terminals	Step 3: Cables
<u>e</u>	CO-00DD1-D	20	ZL-CO-CBL20#
	C0-00DD2-D	20	ZL-CO-CBL20#
	CO-OODR-D	20	ZL-CO-CBL20#
5	CO-OOAR-D	20	ZL-CO-CBL20#
	CO-08ND3	11	ZL-CO-CBL11#
	CO-08NA	11	ZL-CO-CBL11#
	CO-08TD1	11	ZL-CO-CBL11#
<u></u>	CO-08TD2	11	ZL-CO-CBL11#
B	C0-08TR	11	ZL-CO-CBL11#
Ž	CO-08TA	11	ZL-CO-CBL11#
	CO-16ND3	20	ZL-CO-CBL20#
	CO-16TD1	20	ZL-CO-CBL20#
	CO-16TD2	20	ZL-CO-CBL20#
	CO-O4TRS*	20	ZL-CO-CBL20#
*Note: The CO-04TRS relay output is derated to 2A per point max. when used with the ZipLink wiring system			



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Limit Switches
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PLC Overview

CLICK