Specifying an I/O Wiring System

Compatibility Matrix Chart for DL205/305/405 PLCs									
	Feed-through Modules			AC-Powered Relay Modules			DC-Powered Relay Modules		
I/O Modules	ZL-CM20	ZL-CM24	ZL-CM40	ZL-CM08RL120	ZL-CM16RL120A	ZL-CM16RL120B	ZL-CM08RL24	ZL-CM16RL24A	ZL-CM16RL24B
D2-08NA-1	ZL-2CBL1#	-	-	-	-	-	-	-	-
D2-08ND3	ZL-2CBL1#	-	-	-	-	-	-	-	-
D2-16NA	ZL-2CBL2#	-	-	-	-	-	-	-	-
D2-16ND3-2	ZL-2CBL2#	-	-	-	-	-	-	-	-
D2-32ND3	-	-	ZL-4CBL4#	-	-	-	-	-	-
D2-32ND3-2	-	-	ZL-4CBL4#	-	-	-	-	-	-
D2-08TA	ZL-2CBL1#	-	-	ZL-2CBL1#	-	-	-	-	-
D2-08TD1	ZL-2CBL1#	-	-	-	-	-	ZL-2CBL1#	-	-
D2-08TD2	ZL-2CBL1#	-	-	-	-	-	ZL-2CBL1#	-	-
D2-08TR	ZL-2CBL1#	-	-	-	-	-	ZL-2CBL1#	-	-
D2-12TA	ZL-2CBL2#	-	-	-	ZL-2CBL2#	-	-	-	-
D2-12TR	ZL-2CBL2#	-	-	-	-	-	-	-	-
D2-16TD1-2	ZL-2CBL2#	-	-	-	-	-	-	ZL-2CBL2#	-
D2-16TD2-2	ZL-2CBL2#	-	-	-	-	-	-	ZL-2CBL2#	-
D2-32TD1	-	-	ZL-4CBL4#	-	-	-	-	-	-
D2-32TD2	-	-	ZL-4CBL4#		-	-	-	-	-
D3-16NA	ZL-3CBL2#	-	-	-	-	-	-	-	-
D3-16ND2-1	ZL-3CBL2#	-	-	-	-	-	-	-	-
D3-16ND2F	ZL-3CBL2#	-	-	-	-	-	-	-	-
D3-16NE3	ZL-3CBL2#	-	-	-	-	-	-	-	-
D3-08TA-1	ZL-3CBL2#	-	-	ZL-3CBL1FR8#	-	-	-	-	-
D3-16TA-2	ZL-3CBL2#	-	-	-	ZL-3CBL2FR16#	-	-	-	-
D3-16TD1-1	ZL-3CBL2#	-	-	-	-	-	-	ZL-3CBL2FR16#	-
D3-16TD2	ZL-3CBL2#	-	-	-	-	-	-	ZL-3CBL2FR16#	-
D4-08ND3S	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-16NA	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-16NA-1	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-16ND2	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-16ND2F	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-16NE3	-	ZL-4CBL2#	-	-	-	-	-	-	-
D4-32ND3-1	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-32ND3-2	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-64ND2	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-16TA	-	ZL-4CBL2#	-	-	-	ZL-4CBL2#	-	-	-
D4-16TD1	-	ZL-4CBL2#	-	-	-	-	-	-	ZL-4CBL2#
D4-16TD2	-	ZL-4CBL2#	-	-	-	-	-	-	ZL-4CBL2#
D4-32TD1	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-32TD1-1	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-32TD2	-	-	ZL-4CBL4#	-	-	-	-	-	-
D4-64TD1	-	-	ZL-4CBL4#	-	-	-	-	-	-
H2-CTRIO	ZL-2CBL2#	-	-	-	-	-	-	-	-
F3-08TAS	ZL-3CBL2#	-	-	-	-	-	-	-	-
F3-16ND3F	ZL-3CBL2#	-	-	-	-	-	-	-	-
F3-16TA-2	ZL-3CBL2#	-	-	-	-	-	-	-	-
F4-08NE3S	-	ZL-4CBL2#	-	-	-	-	-	-	-

NOTE: # Cables are available in 0.5, 1.0 and 2.0 meter lengths. The length is designated by the last digit in the part number: (blank) = 0.5m, 1 = 1.0m, 2 = 2.0m long. Example: ZL-2CBL2-2 represents a cable length of 2 meters.

Specifying an I/O Wiring System, (cont.)

Compatibility Matrix Chart for DL205/305/405 PLCs (cont'd)											
I/O Modules	Fuse Modules			LED Modules					Communication Adapter Boards		
	ZL-CM08TF	ZL-CM16TF1	ZL-CM16TF2	ZL-CM08L24	ZL-CM08L120	ZL-CM16L24	ZL-CM16L120	ZL-CM32L524	DN-15TB	DN-25TB	
D2-08NA-1	-	-	-	-	ZL-2CBL1#	-	-	-	ZL-DN15TB-CBL	ZL-DN25TB-CBL	
D2-08ND3	-	-	-	ZL-2CBL1#	-	-	-	-			
D2-16NA	-	-	-	-	-	-	ZL-2CBL2L#	-			
D2-16ND3-2	-	-	-	-	-	ZL-2CBL2L#	--	-	Note: the communication modules will work ***only*** with the DL06/250/260/350/450 bottom ports and the DL205/305/405 DCM modules.		
D2-08TA	ZL-2CBL1#	-	-	-	-	-	--	-			
D2-08TD1	ZL-2CBL1#	-	-	-	-	-	--	-			
D2-08TD2*	-	-	-	-	-	-	-	-			
D2-08TR	ZL-2CBL1#	--	-	-	-	-	-	-			
D2-12TA	-	ZL-2CBL2#	-	-	-	-	-	-			
D2-12TR	-	ZL-2CBL2#	-	-	-	-	-	-			
D2-16TD1-2	-	ZL-2CBL2#	-	-	-	-	-	-			
D2-16TD2-2	-	ZL-2CBL2#	-	-	-	-	--	-			
D2-32TD1*	-	-	-	-	-	-	-	-			
D2-32ND3	-	-	-					ZL-4CBL4#			
D3-16NA	-	-	-	-	-	-	ZL-3CBL2L#	-			
D3-16ND2-1*	-	-	-	-	-	-	-	-			
D3-16ND2F*	-	-	-	-	-	-	-	-			
D3-16NE3	-	-	-	-	-	ZL-3CBL2L#	-	-			
D3-08TA-1	-	ZL-3CBL1FR8#	-	-	-	-	-	-			
D3-16TA-2	-	ZL-3CBL2FR16#	-	-	-	-	-	-			
D3-16TD1-1	-	ZL-3CBL2FR16#	-	-	-	-	-	-			
D3-16TD2	-	ZL-3CBL2FR16#	-	-	-	-	-	-			
D4-08ND3S*	-	-	-	-	-		-	-			
D4-16NA	-	-	-	-	-	-	ZL-4CBL2#	-			
D4-16NA-1*	-	-	-	-	-	-	-	-			
D4-16ND2	-	-	-	-	-	ZL-4CBL2#	-	-			
D4-16ND2F	-	-	-	-	-	ZL-4CBL2#	-	-			
D4-16NE3	-	-	-	-	-	ZL-4CBL2#	-				
D4-32ND3-1	-	-	-	-	-	-	-	ZL-4CBL4#			
D4-32ND3-2	-	-	-	-	-	-	-	ZL-4CBL4#			
D4-64ND2 **	-	-	-	-	-	-	-	ZL-4CBL4#			
D4-16TA	-	-	ZL-4CBL2#	-	-	-	-	-			
D4-16TD1	-	-	ZL-4CBL2#	-	-	-	-	-			
D4-16TD2	-	-	ZL-4CBL2#		-	-	-	-			
D4-32TD1*	-	-	-	-	-	-	-	-			
D4-32TD1-1*	-	-	-	-	-	-	-	-			
D4-32TD2*	-	-	-	-	-	-	-	-			
D4-64TD1*	-	-	-	-	-	-	-	-			
F3-08TAS*	-	-	-	-	-	-	-	-			
F3-16ND3F*	-	-	-	-	-		-	-			
F4-08NE3S*	-	-	-	-	-	-	-	-			

**NOTE: These I/O modules are not supported by ZIPlink Fuse and LED modules.*

***NOTE: 64-point modules for the DL405 require two cables per module. Cables are available in 0.5, 1.0 and 2.0 meter lengths. The length is designated by the last digit in the part number: (blank) = 0.5m, -1 = 1.0m, 2 = 2.0m long. Example: ZL-2CBL2-2 represents a cable length of 2 meters.*

Specifying an I/O Wiring System, (cont.)

Compatibility Matrix Chart For DL05/06 PLCs					
I/O Modules	*Feed-through Modules*	*Relay Modules*		*Fuse Modules*	*LED Modules*
	ZL-CM056	*ZL-CM08RL24*	*ZL-CM16RL24B*	*ZL-CM16TF2*	*ZL-CM16L24*
D0-16TD1	ZL-CBL056	–	ZL-CBL056FR	ZL-CBL056FR	–
D0-16TD2	ZL-CBL056	–	ZL-CBL056FR	ZL-CBL056FR	–
D0-16ND3	ZL-CBL056	–	–	–	ZL-CBL056L

Connection Cables

ZIPLink Connection Cables				
Part Number	**Description**	**Insulation Rating**	**Conductor Size**	**Price**
Standard DL205 8 Channel				
ZL-2CBL1	DL205-8 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-2CBL1-1	DL205-8 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-2CBL1-2	DL205-8 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Standard DL205 16 Channel				
ZL-2CBL2	DL205-16 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-2CBL2-1	DL205-16 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-2CBL2-2	DL205-16 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
LED/Sensor DL205 16 Channel				
ZL-2CBL2L	DL205-16,ZIPLink LED/sensor module cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-2CBL2L-1	DL205-16, ZIPLink LED/sensor module cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-2CBL2L-2	DL205-16, ZIPLink LED/sensor module cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Standard DL305 16 Channel				
ZL-3CBL2	DL305-16 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2-1	DL305-16 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2-2	DL305-16 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
LED/Sensor DL305 16 Channel				
ZL-3CBL2L	DL305-16, ZIPLink LED/sensor module cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2L-1	DL305-16, ZIPLink LED/sensor module cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2L-2	DL305-16, ZIPLink LED/sensor module cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Fuse/Relay DL305 8 Channel				
ZL-3CBL1FR8	DL305-8, ZIPLink fuse/relay module cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL1FR8-1	DL305-8, ZIPLink fuse/relay module cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL1FR8-2	DL305-8, ZIPLink fuse/relay module cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Fuse/Relay DL305 16 Channel				
ZL-3CBL2FR16	DL305-16, ZIPLink fuse/relay module cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2FR16-1	DL305-16, ZIPLink fuse/relay module cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL2FR16-2	DL305-16, ZIPLink fuse/relay module cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Standard DL305 16 Channel				
ZL-3CBL3	DL305-16 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL3-1	DL305-16 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL3-2	DL305-16 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Fuse/Relay DL305 16 Channel				
ZL-3CBL3FRD16	DL305-16, ZIPLink fuse/relay module cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-3CBL3FRD16-1	DL305-16, ZIPLink fuse/relay module cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-3CBL3FRD16-2	DL305-16, ZIPLink fuse/relay module cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Standard DL405 16 Channel				
ZL-4CBL2	DL405-16 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-4CBL2-1	DL405-16 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-4CBL2-2	DL405-16 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->
Standard DL205 or DL405 32 Channel				
ZL-4CBL4	DL205 or DL405-32 ZIPLink cable, 1.6 ft. (0.5M)	300V 80°C	#24 AWG	<--->
ZL-4CBL4-1	DL205 or DL405-32 ZIPLink cable, 3.3 ft. (1.0M)	300V 80°C	#24 AWG	<--->
ZL-4CBL4-2	DL205 or DL405-32 ZIPLink cable, 6.5 ft. (2.0M)	300V 80°C	#24 AWG	<--->

ZL-2CBL1xx

ZL-2CBL2xx

ZL-3CBL2xx

ZL-3CBL3xx

ZL-4CBL2xx

ZL-4CBL4xx

Connection Cables (cont.)

ZIPLink Connection Cables				
Part Number	**Description**	**Insulation Rating**	**Conductor Size**	**Price**
Communication Adapter				
ZL-DN15TB-CBL	15 pin shielded cable for DN-15TB module 6.5 ft (2M)	300V 80°C	#28 AWG	<--->
ZL-DN25TB-CBL	25 pin shielded cable for DN-25TB module 6.5 ft (2M)	300V 80°C	#28 AWG	<--->
Ready to Wire w/Pigtail End				
ZL-2CBL2-2P	DL-205-16 Ready-to-wire 20 conductor cable, 2A max/conductor 6.5 ft (2M)	300V 80°C	#24 AWG	<--->
ZL-3CBL3-2P	DL-305-16 Ready-to-wire 24 conductor cable, 2A max/conductor 6.5 ft (2M)	300V 80°C	#24 AWG	<--->
Standard DL05/06				
ZL-CBL056	Ziplink cable for DL05 and 06 16 point I/O modules to Ziplink feedthrough modules (0.5M)	300V 80°C	#24 AWG	<--->
ZL-CBL056L	Ziplink cable for DL05 and 06 16 point I/O LED modules (0.5M)	300V 80°C	#24 AWG	<--->
ZL-CBL056FR	Ziplink cable for DL05 and 06 16 point I/O fuse/relay modules (0.5M)	300V 80°C	#24 AWG	<--->
Standard				
ZL-DB9-CBL	Cable with 9-pin Dsub connectors on both ends, black. male/female, (2M)	300V 80°C	#28 AWG	<--->
ZL-DB15-CBL	Cable with 15-pin Dsub connectors on both ends, black. male/female, (2M)	300V 80°C	#28 AWG	<--->
ZL-DB25-CBL	Cable with 25-pin Dsub connectors on both ends, black. male/female, (2M)	300V 80°C	#28AWG	<--->
ZL-RJ12-CBL	Reverse-wired cable with two RJ12 connectors, black. (2M)	300V 80°C	#28 AWG	<--->

Note: Use ZL-DN15TB-CBL cable only for Communication Module DN-15TB; Super VGA cables will not function correctly.

ZL-2CBL2-2P*

ZL-CBL056L

**** Can be used with any brand PLC.***

ZL-DN15TB-CBL

ZL-DN25TB-CBL

*ZIP*Link Five-second PLC wiring system

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

The *ZIP*Link system eliminates the normally tedious process of wiring PLC I/O to terminal blocks. Simply plug one end of a *ZIP*Link cable into a *Direct*LOGIC I/O module and the other end into a ZIPLink 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. Some are designed exclusively for *Direct*LOGIC PLCs, while others may be used with various PLC brands. ZIPLinks are available for our most popular discrete input and output PLC I/O modules. Analog and high current PLC I/O modules are not supported by *ZIP*Links.

DirectLOGIC PLCs: Whether you want the ability to quickly wire simple point-to-point connections, or the ability to fuse, switch, or isolate your outputs, or the convenience of LED device status indication for monitoring your inputs, we have a ***ZIP***Link module that is right for you. Most DIN-rail mountable ***ZIP***Link modules are available in your choice of eight or sixteen-channel versions, in either 24 VDC or 110 VAC voltages.

Other PLC brands: Use ***ZIP***Link "pigtail" cables and connector modules to wire to most brands of PLCs or controllers. These cables are supplied with a "plug and play" connector on one end, and an unwired, color-coded wire bundle on the other end for user connection to the PLC or controller terminal block.

D-subminiature connectors: For PLCs, controllers, operator interfaces, or other devices utilizing D-subminiature connectors, we now have standard ***ZIP***Link cables and connector modules in 9, 15, and 25-pin male/female configurations for fast, convenient wiring.

Specialty *ZIP*Link connector modules: Got an RJ12 connector that you need to wire to? Use our RJ12 connector module. Need just a couple of additional relays in your PLC system? Try our single or four-channel relay socket modules. Having PLC problems due to transient noise generated from switching inductive loads? Try our 8-channel transorb diode modules to clear up those problems fast.

Specify your *ZIP*Link system

Step 1: Locate the I/O module part number.

Use the Compatibility Matrix chart on pages 26-50 and 51 to locate the I/O module part number.

(Note that discrete high current and analog modules are not supported by *ZIP*Links and must be traditionally wired using terminal blocks such as DIN*nectors*.)

Step 2: Locate compatible connector module types.

Use the cable numbers (ZL-#CBL##) to locate compatible connector modules (ZL-CM#)

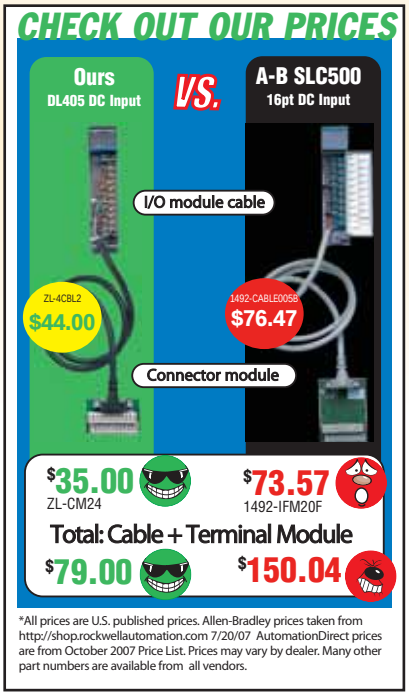
Step 3: Determine which type of connector module

Select the connector module type; feed-through, fuse, LED, etc.

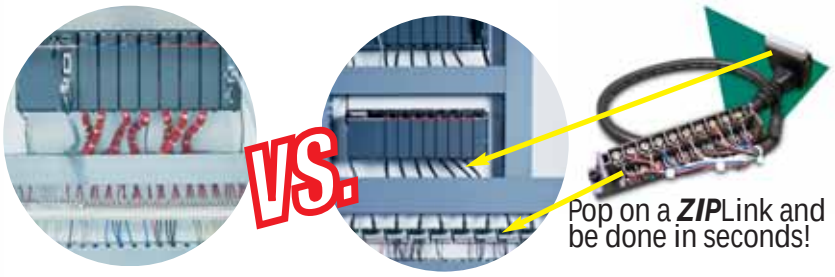
Step 4: Select cable length.

Select the cable length by replacing the # symbol with; blank = 0.5m, -1=1.0m, -2=2.0m

Step 5: Place your order!



*All prices are U.S. published prices. Allen-Bradley prices taken from http://shop.rockwellautomation.com 7/20/07 AutomationDirect prices are from October 2007 Price List. Prices may vary by dealer. Many other part numbers are available from all vendors.



Hand-wire and connect each individual wire, over and over for each module

Pop on a ***ZIP***Link and be done in seconds!

Which way would you like to do your wiring?