

# **Wiring Solutions**

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### Wiring Solutions using the **ZIP**Link Wiring System

**ZIP**Links simplify the normally tedious process of wiring between devices by utilizing prewired cables and DIN rail mount connector modules. It's as simple as plugging in a cable connector at either end or terminating wires at only one end. Prewired cables keep installation clean and efficient, using half the space at a fraction of the cost of standard terminal blocks. There are several wiring solutions available when using the **ZIP**Link System ranging from PLC I/O-to-**ZIP**Link Connector Modules that are ready for field termination, options for connecting to third party devices, GS,

DuraPulse and SureServo Drives, and specialty relay, transorb and communications modules. Pre-printed I/O-specific adhesive label strips for quick marking of **ZIP**Link modules are provided with **ZIP**Link cables. See the following solutions to help determine the best **ZIP**Link system for your application.

#### Solution 1: Do-more H2 Series PLC to ZIPLink Connector Modules

When looking for quick and easy I/O-to-field termination, a **ZIP**Link connector module used in conjunction with a prewired **ZIP**Link cable, consisting of an I/O terminal block at one end and a multi-pin connector at the other end, is the best solution.

Using the PLC I/O Modules to **ZIP**Link Connector Modules selector tables located in this section,

- 1. Locate your I/O module/PLC.
- 2. Select a **ZIP**Link Module.
- 3. Select a corresponding **ZIP**Link Cable.



**Solution 2: Do-more H2 Series PLC to 3rd Party Devices**When wanting to connect I/O to another device within close proximity of the I/O modules, no extra terminal blocks are necessary when using the **ZIP**Link Pigtail Cables. **ZIP**Link Pigtail Cables are prewired to an I/O terminal block with color-coded pigtail with soldered-tip wires on the other end.

Using the I/O Modules to 3rd Party Devices selector tables located in this section.

- 1. Locate your PLC I/O module.
- Select a ZIPLink Pigtail Cable that is compatible with your 3rd party device.



### Solution 3: GS Series and DuraPulse Drives Communication Cables

Need to communicate via Modbus RTU to a drive or a network of drives?

**ZIP**Link cables are available in a wide range of configurations for connecting to PLCs and SureServo, SureStep, Stellar Soft Starter and AC drives. Add a **ZIP**Link communications module to quickly and easily set up a multi-device network.

Using the Drives Communication selector tables located in this section,

1. Locate your Drive and type of communications.

Select a ZIPLink cable and other associated hardware.



www.automationdirect.com Do-more H2 PLCs tDMH-36



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#### **Solution 4: Serial Communications Cables**

**ZIP**Link offers communications cables for use with Do-more H2 Series CPUs, that can also be used with other communications devices. Connections include a 6-pin RJ12 or 9-pin, 15-pin and 25-pin D-sub connectors which can be used in conjunction with the RJ12 or D-Sub Feedthrough modules.

Using the Serial Communications Cables selector table located in this section,

- 1. Locate your connector type
- 2. Select a cable.



#### Solution 5: Specialty ZIPLink Modules

For additional application solutions, *ZIP*Link modules are available in a variety of configurations including stand-alone relays, 24VDC and 120VAC transorb modules, D-sub and RJ12 feedthrough modules, communication port adapter and distribution modules, and SureServo 50-pin I/O interface connection.

Using the **ZIP**Link Specialty Modules selector table located in this section,

- 1. Locate the type of application.
- 2. Select a **ZIP**Link module.



### Solution 6: ZIPLink Connector Modules to 3rd Party Devices

If you need a way to connect your device to terminal blocks without all that wiring time, then our pigtail cables with color-coded soldered-tip wires are a good solution. Used in conjunction with any compatible **ZIP**Link Connector Modules, a pigtail cable keeps wiring clean and easy and reduces troubleshooting time.

Using the Universal Connector Modules and Pigtail Cables table located in this section,

- 1. Select module type.
- 2. Select the number of pins.
- 3. Select cable.





# NK Wiring Solutions

Do-more/DL205 PLC Input Module <i>ZIP</i> Link Selector					
PLC		ZIPLink			
Input Module	# of Terms	Component	Module	Cable †	
D2-08ND3	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10 *	
D2-16ND3-2	19	Feedthrough	ZL-RTB20	ZL-D2-CBL19 *	
		Sensor	ZL-LTB16-24	ZL-D2-CBL19 *	
<u>D2-32ND3</u> 1	40	Feedthrough	ZL-RTB40	ZL-D24-CBL40 *	
				ZL-D24-CBL40 *X	
		Sensor	ZL-LTB32-24	ZL-D24-CBL40 *	
				ZL-D24-CBL40 *X	
D2-32ND3-21		Feedthrough	ZL-RTB40	ZL-D24-CBL40 *	
	40	reedinough		ZL-D24-CBL40 *X	
	40	Sensor	<u>ZL-LTB32-24</u>	ZL-D24-CBL40 *	
				ZL-D24-CBL40 *X	
<u>D2-08NA-1</u>	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10 *	
<u>D2-08NA-2</u>	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10 *	
<u>D2-16NA</u>	19	Feedthrough	ZL-RTB20	ZL-D2-CBL19 *	

† X in the part number represents a 45° angle plug.

Do-more/DL205 PLC Combo In/Out Module <i>ZIP</i> Link Selector					
PLC		ZIPLink			
Combo Module	# of Terms	Component	Module	Cable	
D2-08CDR	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10*	
H2-CTRIO2	19	Feedthrough	ZL-RTB20 (-1)	ZL-D2-CBL19 *	

Do-more/DL205 PLC Analog Module ZIPLink Selector				
PLC		ZIPLink		
Analog Module	# of Terms	Component	Module	Cable
F2-04AD-1		Feedthrough	ZL-RTB20	ZL-D2-CBL10*
F2-08AD-1				
F2-04AD-2	10			
F2-08AD-2				
F2-02DA-1				
F2-02DAS-1				
F2-08DA-1	19			ZL-D2-CBL19*
F2-02DA-2				ZL-D2-CBL10*
F2-02DA-2L	10			
F2-02DAS-2				
F2-08DA-2				
F2-4AD2DA				
F2-8AD4DA-1	19			ZL-D2-CBL19*
F2-8AD4DA-2				
<u>F2-04RTD</u> <sup>4</sup>	Matched Only		See Note 4	
<u>F2-04THM</u> <sup>4</sup>	Matched Only		See Note 4	

Do-more/DL205 PLC Output Module <i>ZIP</i> Link Selector				
PLC		ZIPLink		
Output Module	# of Terms	Component	Module	Cable †
<u>D2-04TD1</u> <sup>1</sup>	10	Feedthrough		ZL-D2-CBL10*
<u>D2-08TD1</u>	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10*
<u>D2-08TD2</u>	10	Feedthrough		ZL-D2-CBL10*
D2 16TD1 2	19	Feedthrough		ZL-D2-CBL19*
<u>D2-16TD1-2</u>	19	Fuse	ZL-RFU20 <sup>5</sup>	ZL-D2-CBL19*
		Feedthrough	ZL-RTB20	ZL-D2-CBL19*
D2-16TD2-2	19	Fuse	ZL-RFU20 <sup>5</sup>	ZL-D2-CBL19*
		Relay	ZL-RRL16-24-2	ZL-D2-CBL19*
F2-16TD1P	19	Feedthrough	ZL-RTB20	ZL-D2-CBL19*
F2-16TD2P	19	Feedthrough	ZL-RTB20	ZL-D2-CBL19*
		Feedthrough	ZL-RTB40	ZL-D24-CBL40*
D2-32TD1 <sup>1</sup>	40			ZL-D24-CBL40*X
<u>U2-321U1</u>		Fuse	ZL-RFU40 <sup>5</sup>	ZL-D24-CBL40*
				ZL-D24-CBL40*X
	40	Feedthrough	ZL-RTB40	ZL-D24-CBL40*
D2-32TD2 <sup>1</sup>				ZL-D24-CBL40*X
<u> </u>		Fuse	ZL-RFU40 <sup>5</sup>	ZL-D24-CBL40*
				ZL-D24-CBL40*X
<u>D2-08TA</u>	10	Feedthrough		ZL-D2-CBL10*
<u>F2-08TA</u>	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10*
D2-12TA	19	Feedthrough		ZL-D2-CBL19*
UZ-IZIA		Fuse	ZL-RFU20 <sup>5</sup>	ZL-D2-CBL19*
D2-04TRS <sup>2</sup>	10	Feedthrough		ZL-D2-CBL10*
<u>D2-08TR</u>	10	Feedthrough	ZL-RTB20	ZL-D2-CBL10*
F2-08TRS <sup>2</sup>	19	Feedthrough		ZL-D2-CBL19*
F2-08TR3	10	Feedthrough		ZL-D2-CBL10*
D2 12TD	19	Feedthrough	<u> </u>	ZL-D2-CBL19*
<u>D2-12TR</u>		Fuse	ZL-RFU20 <sup>5</sup>	ZL-D2-CBL19*

- † X in the part number represents a 45° angle plug.
- \* Select the cable length by replacing the \* with: blank = 0.5 m, -1 = 1.0 m, or -2 = 2.0 m.
- 1 To make a custom cable for the 32-point modules, use: Solder-style 180° connector ZL-D24-CON or Solder-style 45° connector ZL-D24-CON-X.
- 2 Caution: The D2-04TD1, D2-04TRS, and F2-08TRS outputs are derated not to exceed module specs 2A per point and 2A per common when used with the ZIPLink wiring system.
- 3 The F2-08TR outputs are derated not to exceed 2A per point and 4Å per common when used with the ZIPLink wiring system.
- 4 The F2-04RTD and F2-04THM modules are not supported by the ZIPLink wiring system.
- 5 Note: Fuses (5 x 20 mm) are not included. See Edison Electronic Fuse section for (5 x 20 mm) fuse. S500 and GMA electronic circuit protection for fast-acting maximum protection. S506 and GMC electronic circuit protection for time-delay performance. Ideal for inductive circuits. To ensure proper operation, do not exceed the voltage and current rating of ZIPLink module. ZL-RFU20 = 2A per circuit; ZL-RFU40 = 400mA per circuit.



**Note: ZIP**Link Connector Modules and **ZIP**Link Cables specifications are in the **ZIP**Link catalog section.