

Wiring Solutions

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

ZIPLinks 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,

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.

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.

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.
- 2. Select a **ZIP**Link 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?

ZIPLink 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.
- 2. Select a **ZIP**Link cable and other associated hardware.





Wiring Solutions

Solution 4: Serial Communications Cables

ZIPLink 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 colorcoded 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.



www.automationdirect.com



Wiring Solutions

| Do-more/DL205 PLC Input Module ZIPLink Selector | | | | | |
|---|---------------|-------------|--------------------|-----------------|--|
| PLC | | ZIPLink | | | |
| Input Module | # of Terms | Component | Module | Cable † | |
| <u>D2-08ND3</u> | 10 | Feedthrough | <u>ZL-RTB20</u> | ZL-D2-CBL10 * | |
| <u>D2-16ND3-2</u> | 19 | Feedthrough | <u>ZL-RTB20</u> | ZL-D2-CBL19 * | |
| | | Sensor | ZL-LTB16-24 | ZL-D2-CBL19 * | |
| <u>D2-32ND3</u> 1 | 40 | Feedthrough | <u>ZL-RTB40</u> | ZL-D24-CBL40 * | |
| | | | | ZL-D24-CBL40 *X | |
| | 40 | Sensor | ZL-LTB32-24 | ZL-D24-CBL40 * | |
| | | | | ZL-D24-CBL40 *X | |
| <u>D2-32ND3-2</u> 1 | | Feedthrough | <u>ZL-RTB40</u> | ZL-D24-CBL40 * | |
| | 40 | | | 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 |
| <u>D2-08CDR</u> | 10 | Feedthrough | ZL-RTB20 | ZL-D2-CBL10* |
| <u>H2-CTRIO2</u> | 19 | Feedthrough | <u>ZL-RTB20</u> (-1) | <u>ZL-D2-CBL1</u> 9* |

| Do-more/DL205 PLC Analog Module ZIPLink Selector | | | | |
|--|-----------------|-------------|-----------------|----------------------|
| PLC | | ZIPLink | | |
| Analog Module | # of Terms | Component | Module | Cable |
| <u>F2-04AD-1</u> | | | | <u>ZL-D2-CBL10</u> * |
| <u>F2-08AD-1</u> | | | | |
| <u>F2-04AD-2</u> | 10 | | | |
| <u>F2-08AD-2</u> | | | | |
| <u>F2-02DA-1</u> | | | | |
| <u>F2-02DAS-1</u> | | | | |
| <u>F2-08DA-1</u> | 19 | Foodthrough | ZL-RTB20 | ZL-D2-CBL19* |
| F2-02DA-2 | 10 | Feedthrough | <u>ZL-RIDZU</u> | ZL-D2-CBL10* |
| F2-02DA-2L | | | | |
| F2-02DAS-2 | | | | |
| <u>F2-08DA-2</u> | | | | |
| <u>F2-4AD2DA</u> | | | | |
| <u>F2-8AD4DA-1</u> | 19 | | | ZL-D2-CBL19* |
| <u>F2-8AD4DA-2</u> | | | | |
| <u>F2-04RTD⁴</u> | Matched Only | | See Note 4 | |
| <u>F2-04THM</u> 4 | Matched Only | See Note 4 | | |

| Do-more/DL205 PLC Output Module <i>ZIP</i> Link Selector | | | | Selector |
|--|------------|-------------|-----------------------|----------------|
| PLC | | ZIPLink | | |
| Output Module | # of Terms | Component | Module | Cable † |
| <u>D2-04TD1¹</u> | 10 | Feedthrough | | ZL-D2-CBL10* |
| <u>D2-08TD1</u> | 10 | Feedthrough | | ZL-D2-CBL10* |
| <u>D2-08TD2</u> | 10 | Feedthrough | ZL-RTB20 | ZL-D2-CBL10* |
| D9 16TD1 9 | 19 | Feedthrough | | ZL-D2-CBL19* |
| <u>D2-16TD1-2</u> | 19 | Fuse | ZL-RFU20 ⁵ | ZL-D2-CBL19* |
| | | Feedthrough | ZL-RTB20 | ZL-D2-CBL19* |
| <u>D2-16TD2-2</u> | 19 | Fuse | ZL-RFU20 ⁵ | ZL-D2-CBL19* |
| | | Relay | ZL-RRL16-24-2 | ZL-D2-CBL19* |
| F2-16TD1P | 19 | Feedthrough | ZL-RTB20 | ZL-D2-CBL19* |
| <u>F2-16TD2P</u> | 19 | Feedthrough | ZL-RTB20 | ZL-D2-CBL19* |
| | | | ZL-RTB40 | ZL-D24-CBL40* |
| <u>D2-32TD1</u> 1 | 40 | Feedthrough | <u>ZL-R1B40</u> | ZL-D24-CBL40*X |
| | | Fuse | ZL-RFU40 ⁵ | ZL-D24-CBL40* |
| | | | | ZL-D24-CBL40*X |
| | 40 | Feedthrough | ZL-RTB40 | ZL-D24-CBL40* |
| D2-32TD2 ¹ | | | | ZL-D24-CBL40*X |
| <u>UZ-321UZ</u> | | Fuse | ZL-RFU40 ⁵ | ZL-D24-CBL40* |
| | | | | ZL-D24-CBL40*X |
| <u>D2-08TA</u> | 10 | Feedthrough | | ZL-D2-CBL10* |
| F2-08TA | 10 | Feedthrough | ZL-RTB20 | ZL-D2-CBL10* |
| D0 1074 | 10 | Feedthrough | | ZL-D2-CBL19* |
| <u>D2-12TA</u> | 19 | Fuse | ZL-RFU20 ⁵ | ZL-D2-CBL19* |
| D2-04TRS ² | 10 | Feedthrough | | ZL-D2-CBL10* |
| D2-08TR | 10 | Feedthrough | <u>ZL-RTB20</u> | ZL-D2-CBL10* |
| F2-08TRS ² | 19 | Feedthrough | | ZL-D2-CBL19* |
| F2-08TR3 | 10 | Feedthrough | | ZL-D2-CBL10* |
| <u>D2-12TR</u> | 19 | Feedthrough | | ZL-D2-CBL19* |
| | | Fuse | ZL-RFU20 ⁵ | 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: ZL-D24-CBL40-2x cable discontinued 8/2023. Please use ZL-D24-CBL40-2 as a replacement

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