





# DL305 Power Requirements

This section shows the amount of power supplied by the base power supplies and the amount of power used by each DL305 device. Note the base power supplies provide three internal voltages (5V, 9V, 24V). The chart shows how much power from each of these power sources is required for each DL305 device. Use this information when calculating the power budget for your system.

In addition to the three internal power sources, the DL305 bases provide an external power connection. There is 24VDC available from the 24VDC output terminals on the bases (except D3-05BDC and D3-10BDC).

The 24VDC can be used to power external devices or DL305 modules that require external 24VDC. The power used from this external 24VDC output reduces the internal system 24VDC that is available to the modules by an equal amount. When using the 24VDC output at the base terminal, it is recommended that 100mA not be exceeded.

Power Consumed				
Device	5V(mA)	9V(mA)	24V(mA)	Ext req.
<b>CPUs</b>				
<u>D3-350</u>	500	0	0	0
<b>DC Input Modules</b>				
<u>D3-08ND2</u>	0	10	112	0
<u>F3-16ND3F</u>	0	148	68	0
<b>AC Input Modules</b>				
<u>D3-08NA-2</u>	0	10	0	0
<b>AC/DC Input Modules</b>				
<u>D3-16NE3</u>	0	130	0	0
<b>DC Output Modules</b>				
<u>D3-08TD1</u>	0	20	24	0
<u>D3-08TD2</u>	0	30	0	0
<b>AC Output Modules</b>				
<u>F3-08TAS-1</u>	0	200	0	0
<u>D3-16TA-2</u>	0	400	0	0

Power Supplied				
Device	5V(mA)	9V(mA)	24V(mA)	24 V (mA)
<u>D3-05BDCD3-10BDC</u>	900 900	2000 2000	500 500	None None
<b>Power Consumed</b>				
Device	5V(mA)	9V(mA)	24V(mA)	External required
<b>Relay Output Modules</b>				
<u>F3-08TRS-1</u>	0	296	0	0
<u>F3-08TRS-2</u>	0	296	0	0
<u>D3-16TR</u>	0	480	0	0
<b>Analog Temperature and Thermocouple Modules</b>				
<u>F3-04ADS</u>	0	183	50	0
<u>F3-08AD-1</u>	0	45	55	0
<u>F3-08THM-n</u>	0	50	34	0
<u>F3-16AD</u>	0	55	65	0
<u>F3-04DA-1</u>	0	144	108	0
<b>Communications and Networking</b>				
<b>Programming</b>				
<u>D2-HPP</u>	200	0	0	0
<b>Specialty CPUs</b>				
<u>F3-0MUX-1*</u>	409	0	0	0
<u>F3-0MUX-2</u>	262	0	150	0
<u>F3-PMUX-1</u>	455	0	0	0
<b>Operator Interface</b>				
<u>C-more Micro-Graphic</u>	210	0	0	0

\* F3-0MUX-1 -As of 3/2021 CPU is no longer available.



# Wiring Solutions

## Wiring Solutions using the ZIPLink Wiring System

**ZIPLink**s eliminate 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 **ZIPLink** System ranging from PLC I/O-to-**ZIPLink** 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 **ZIPLink** modules are provided with **ZIPLink** cables. See the following solutions to help determine the best **ZIPLink** system for your application.

### **Solution 1: DirectLOGIC I/O Modules to ZIPLink Connector Modules**

When looking for quick and easy I/O-to-field termination, a **ZIPLink** connector module used in conjunction with a prewired **ZIPLink** 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 **ZIPLink** Connector Modules selector tables located in this section,

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



### **Solution 2: DirectLOGIC I/O Modules 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 **ZIPLink** Pigtail Cables. **ZIPLink** 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 **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?

**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 **ZIPLink** 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 **ZIPLink** cable and other associated hardware.





# Wiring Solutions

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

**ZIPLink** offers communications cables for use with DirectLOGIC, CLICK, and Productivity3000 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, **ZIPLink** 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 **ZIPLink** Specialty Modules selector table located in this section,

1. Locate the type of application.
2. Select a **ZIPLink** 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 **ZIPLink** 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.





# PLC I/O Modules to ZIPLink Connector Modules - DL305

DL305 PLC Input Module ZIPLink Selector				
PLC		ZIPLink		
Input Module	# of Terms	Component	Module Part No.	Cable Part No.
<a href="#">D3-08ND2</a>	10	See Note 1		
<a href="#">F3-16ND3F</a>	18			
<a href="#">D3-08NA-2</a>	10			

DL305 PLC Output Module ZIPLink Selector				
PLC		ZIPLink		
Output Module	# of Terms	Component	Module Part No.	Cable Part No.
<a href="#">D3-08TD1</a>	10	See Note 1		
<a href="#">D3-08TD2</a>	10	See Note 1		
<a href="#">F3-08TAS-1</a>	18	See Note 2		
<a href="#">D3-16TA-2</a>	18			
<a href="#">D3-16TR</a>	18			
<a href="#">F3-08TRS-1</a>	18			
<a href="#">F3-08TRS-2</a>	18			

DL305 PLC Analog Module ZIPLink Selector				
PLC		ZIPLink		
Analog Module	# of Terms	Component	Module	Cable
<a href="#">F3-04ADS</a>	18	See Note 2		
<a href="#">F3-08AD-1</a>	18			
<a href="#">F3-16AD</a>	18			
<a href="#">F3-04DA-1</a>	18			
<a href="#">F3-08THM-J</a>	T/C Wire Only			

1These I/O modules have non-removable terminal blocks which can be terminated using the [ZL-CBL24-1P](#) or 2P pigtail cable and the [ZL-RTB20](#) module of the ZIPLink wiring system.

2 Module is not supported by the ZIPLink wiring system



**Note:** See the Compatibility Matrix tables under the **ZIPLink** Connector Modules catalog section.



[ZL-CBL24-1P](#)