

I/O Module Selection & Wiring Guidelines

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I/O Selection Considerations

I/O Module Selection

The DL305 product family offers various types of I/O modules for interfacing many different field devices to the PLC system. There are several electrical characteristics that should be considered when choosing the proper I/O module for a field device or for obtaining required system performance. Electrical characteristics for discrete input modules and discrete output modules are discussed in Chapters 6 and 7. The DL305 family also offers several specialized modules such as analog, ASCII BASIC modules, network interface modules, high speed counter modules, etc. These modules have their own manuals, so if you are using them you should supplement this manual with the manual specifically designed for the special module.

Sinking and Sourcing Circuits

The charts on the following page supply information on the current sinking and current sourcing configurations using DL305 discrete I/O modules. If you have a question about the type of device required to connect to a particular module please refer to the following charts. The charts show nine common input and output module configurations. Match the module part number you are considering to the applicable configuration(s) to ensure the module type will work in your application.

For additional clarification we have included nine diagrams depicting the configurations listed in the charts. These diagrams show the module category, type of device and how they are connected to each other. The diagrams and two examples of wiring a solid state switch to an input module follow the charts on the next page.

DL305 Input Module Configuration Chart

DL305 Input Module Type	Config #1 DC Current Sourcing Input	Config #2 DC Current Sink/Sourcing Input	Config #3 DC Current Sinking Input	Config #4 AC/DC Input	Config #5 AC Input
D3-08ND2	✓				
D3-16ND2-1	✓				
D3-16ND2-2	✓				
D3-16ND2F	✓				
F3-16ND3F		✓			
D3-08NA-1					✓
D3-08NA-2					✓
D3-16NA					✓
D3-08NE3	✓	✓	✓	✓	✓
D3-16NE3	✓	✓	✓	✓	✓

DL305 Output Module Configuration Chart

DL305 Output Module Type	Config #6 DC Current Sinking Output	Config #7 DC Current Sourcing Output	Config #8 AC/DC Current Sink/Sourcing Output	Config #9 AC Output
D3-08TD1	✓			
D3-08TD2		✓		
D3-16TD1-1	✓			
D3-16TD1-2	✓			
D3-16TD2		✓		
F3-08TAS				✓
D3-08TA-1				✓
D3-08TA-2				✓
F3-16TA-1				✓
D3-16TA-2				✓
D3-08TR			✓	
F3-08TRS-1			✓	
F3-08TRS-2			✓	
D3-16TR			✓	
D3-04TAS				✓