

# Serial Remote I/O Master/Slave Modules

## Remote I/O Master Module

D4-RM <--->



## Remote I/O Slave Module

D4-RS <--->

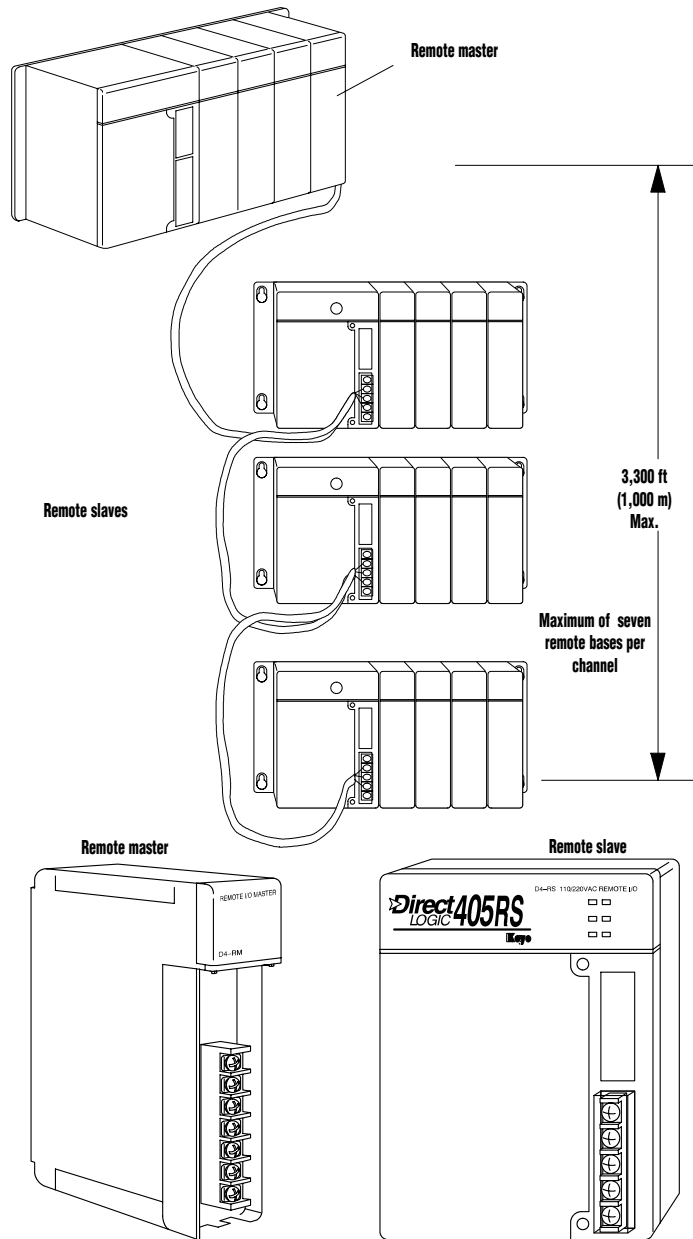
D4-RSDC <--->



### Overview

The DL405 offers full-size remote I/O. The goal of remote I/O is to reduce wiring costs by allowing I/O points to be located near the devices they are controlling. The chart at the bottom of this page shows the capacity for each CPU. The D4-450 has the D4-RM functionality built into the 25-pin port directly on the CPU. However, you can also choose to use the D4-RM discussed here. Here's how it works: A special module called the Remote Master is placed in the CPU base. This Master module controls up to seven Remote Slaves. The Remote Slaves are connected to the Master in a daisy-chain manner over a twisted pair communication cable (maximum length of 3,300 feet or 1,000m). Each Remote Slave attaches to a DL405 base (any size). Standard DL405 modules populate the remote bases.

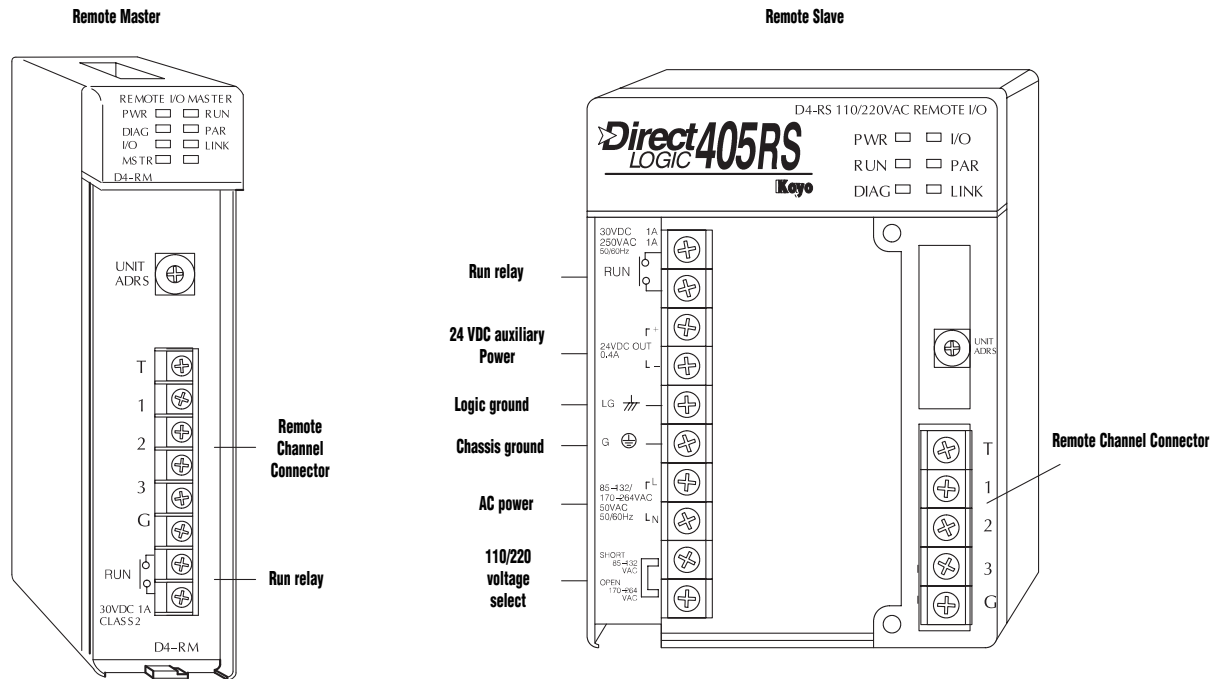
You can assign normal input and output addresses to the remote points, or you can assign special remote I/O addresses. The



Remote Master sends the remote I/O information to the CPU. The communication between the Remote Master and the CPU is asynchronous to the CPU scan. For this reason, remote I/O applications should be limited to those that do not require the remote I/O points to be updated with every CPU scan.

	D4-450	D4-440	D4-430
<b>Maximum number of remote masters supported</b>	3*	2	2
<b>Maximum I/O points supported</b>	1536	1024	512
<b>Maximum I/O points supported per channel</b>	512	512	512
<b>Maximum number of remote I/O bases per channel</b>	7	7	7
<i>*max. of 2 D4-RM, 1 channel is via 25-pin CPU port</i>			

# Serial Remote I/O Master/Slave Modules



Remote Master Specifications	
<b>Module Type</b>	Intelligent device
<b>Number of Masters per CPU</b>	Two maximum for D4-430 and D4-440 Three maximum for D4-450 (max. number must include both Remote Master modules and Slice Master modules)
<b>Maximum Slaves Supported</b>	Seven slaves per channel
<b>Communication to Slaves</b>	RS485 via twisted pair with shield @ 38.4K baud
<b>Recommended Cable</b>	Belden 9841 or equivalent
<b>Transmission Distance</b>	3,300 ft. maximum
<b>Terminal Type</b>	Fixed
<b>Operating Environment</b>	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
<b>Internal Power Consumption</b>	300 mA maximum
<b>Manufacturer</b>	Koyo Electronics

Remote Slave Specifications	
<b>Maximum Slave Points per CPU</b>	512 for D4-430 1024 for D4-440 1536 for D4-450
<b>I/O Addresses Used</b>	I/O modules in slave bases do not automatically consume any standard input and output points. They consume remote I/O points at a rate equal to the number of I/O points in each base. However, you can choose to use standard I/O addresses as an option.
<b>Terminal Type</b>	Fixed
<b>Operating Environment</b>	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
<b>Power Required</b>	110VAC/220 VAC (D4-RS) 24VDC (D4-RSDC)
<b>Manufacturer</b>	Koyo Electronics

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

**DL405 PLC**

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Pushbuttons/Lights

Process

Relays/Timers

Comm.

TB's & Wiring

Power

Enclosures

Appendix

Part Index