SERIAL REMOTE I/O MASTER/SLAVE MODULES

Remote I/O Master Module
D4-RM
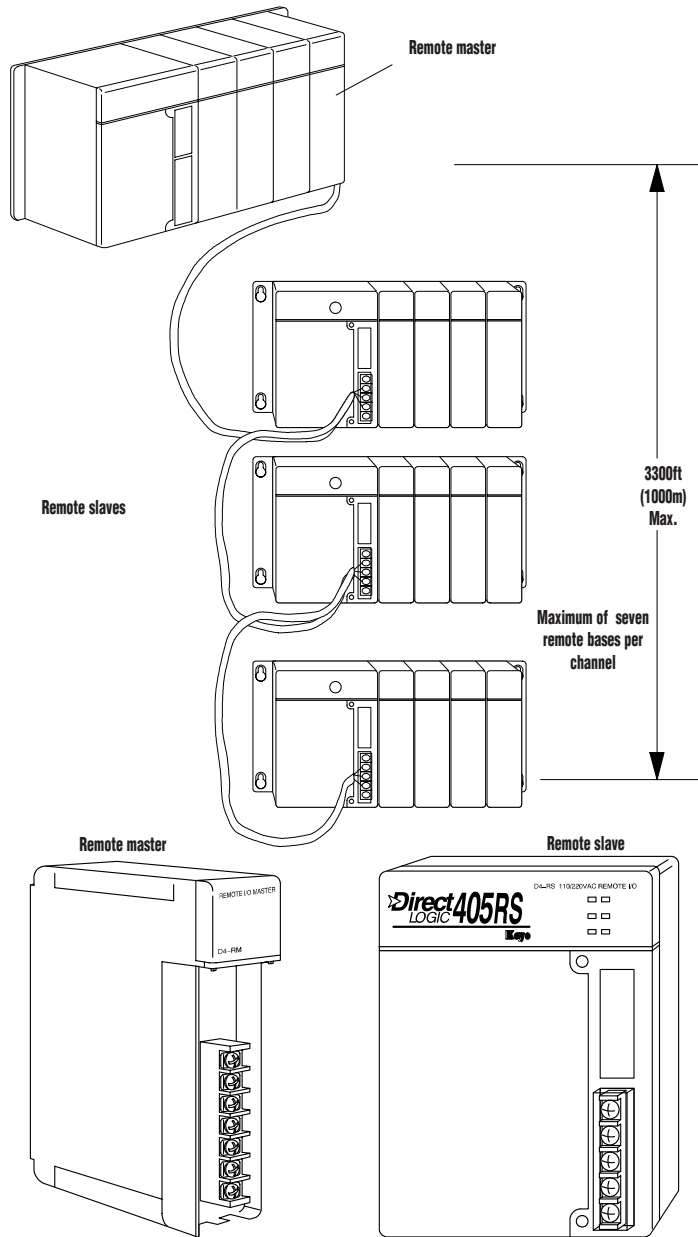
Remote I/O Slave Module
D4-RS
D4-RSDC

Remote master

Remote slaves

3300ft (1000m) Max.

Maximum of seven remote bases per channel

Remote master

Remote slave

D4-RS 110/220VAC REMOTE I/O

Direct LOGIC 405RS Koyo

REMOTE I/O MASTER

D4-RM

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 3300 feet or 1000m). 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
Maximum number of remote masters supported	3*	2	2
Maximum I/O points supported	1536	1024	512
Maximum I/O points supported per channel	512	512	512
Maximum number of remote I/O bases per channel	7	7	7

*max. of 2 D4-RM, 1 channel is via 25-pin CPU port

PLC and PC Products

SERIAL REMOTE I/O

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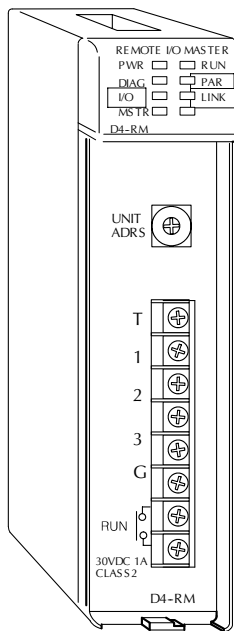
Remote Slave
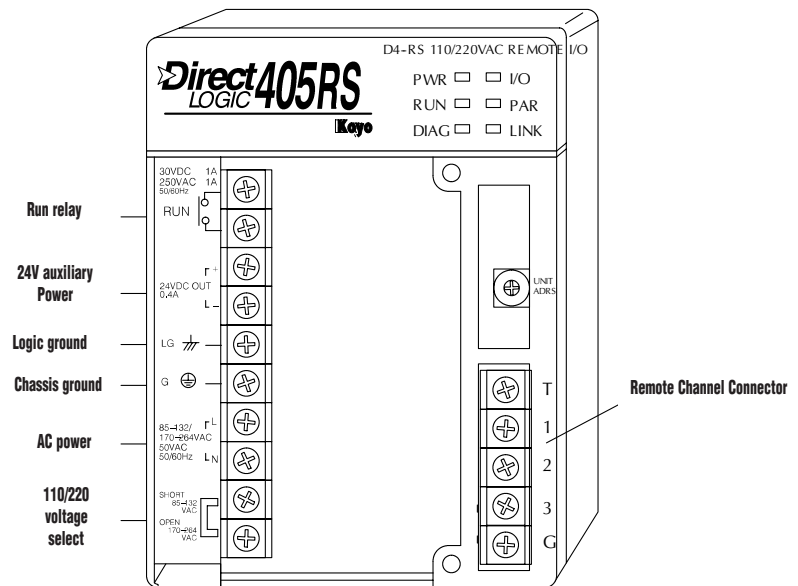
Remote Master Specifications	
Module Type	Intelligent device
Number of Master per CPU	Two maximum for D4-430 and D4-440 Three maximum for D4-450 (max. number must include both Remote Master modules and Slice Master modules)
Maximum Slaves Supported	Seven slaves per channel
Communication to Slaves	RS485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

Remote Slave Specifications	
Maximum Slave Points per CPU	512 for D4-430 1024 for D4-440 1536 for D4-450
I/O Addresses Used	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
Terminal Type	Fixed
Operating Environment	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
Power required	110 VAC/220 VAC (D4-RS) 24VDC (D4-RSDC)
Manufacturer	Koyo Electronics