

# Serial Data Communications Module

## Data Communications Module

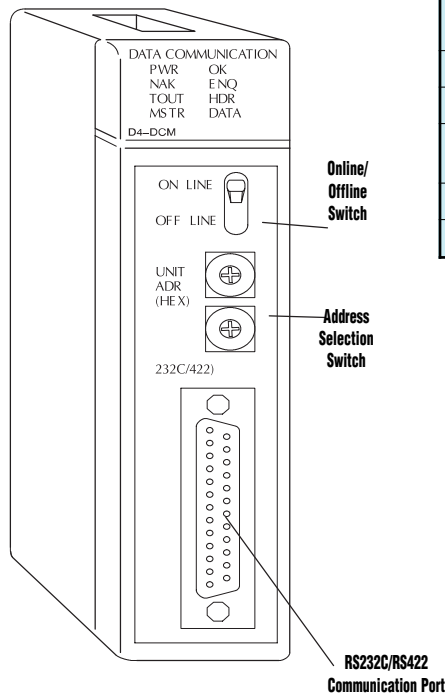
D4-DCM <---->



### Overview

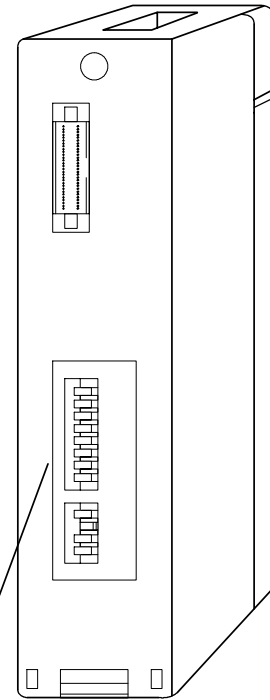
The DL405 Data Communication Module (DCM) is a general purpose communications interface for the DL405 family of PLCs. This module is primarily used for three reasons:

- Extra general purpose communications port to connect a personal computer, operator interface, etc.
- Network interface to a **DirectNET** network
- Network interface to a Modbus network using the RTU protocol as slave.



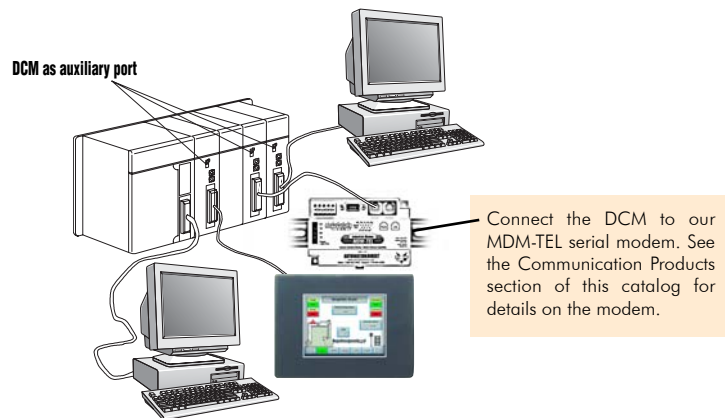
### Extra communications port

All DL405 CPUs offer at least two built-in communication ports. (The D4-450 even has four ports.) However, if even more communication ports are needed, additional Data Communication Modules can be added. As an extra communication port, the DCM has specifications identical to port 1 on the DL405 CPUs. Whatever can be connected to port 1 of the DL405 CPU can be connected to the DCM, just make sure the device has a DL405 compatible driver. This allows additional connections of devices, such as operator interfaces, personal computers, etc. Since the DCM does not require any programming, you can set the DCM communication parameters, connect the cables, and start transferring data.



DIP Switches for communications and Protocol Setup

Specifications	
<b>Module Type</b>	Intelligent
<b>Modules per CPU</b>	7 Maximum, any slot in CPU Base
<b>Communications</b>	RS232C/422, <b>DirectNET</b> , SIMATIC®TI405™, or Modbus (slave only) RTU protocol. Baud rate selectable from 300 to 38.4K baud. Odd or no parity. HEX or ASCII mode
<b>Recommended Cable</b>	Belden 9729 or equivalent (for RS422)
<b>Field Wiring Connector</b>	25 Pin D-shell connector
<b>Internal Power Consumption</b>	500mA maximum at 5VDC, (supplied by base power supply)
<b>Operating Environment</b>	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
<b>Manufacturer</b>	Koyo Electronics



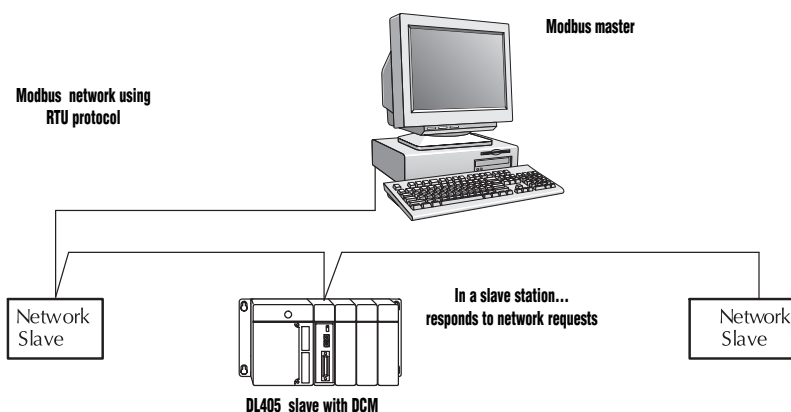
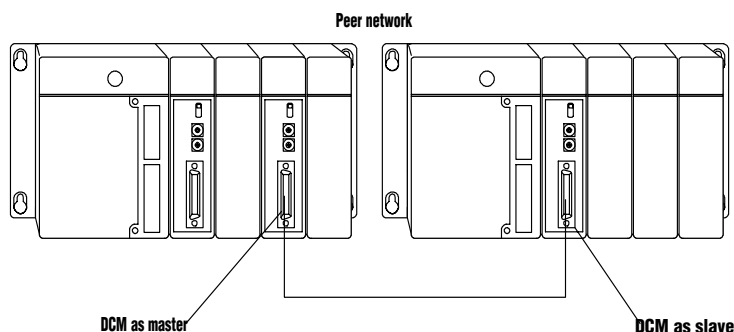
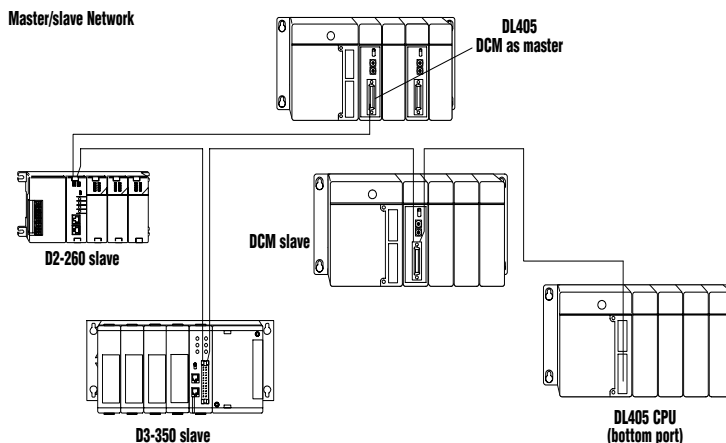
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## DirectNET network interface

The DCM can be used as a network interface for applications requiring data to be shared between PLCs, or between PLCs and an intelligent device such as a host computer. The DCM connects easily to DirectNET. This network allows you to upload or download virtually any type of system data including timer/counter data, I/O information, and V-memory information from any of our PLCs or compatible PLC. The DCM allows the DL405 PLC to function as a master or a slave of DirectNET.

**Network Master** - The DCM allows the DL405 to serve as a master of a DirectNET Network. The DCM takes communication requests issued from the PLC program (the network part of the program can be very simple, as few as seven words) and automatically converts these requests into network commands to read data from or write data to another PLC on the network. This capability also allows a peer to peer configuration of two DL405 systems with DCMs. For other options, consider the H4-ECOM/ECOM100 modules.

**Network Slave** - All DL405 CPUs have a built-in network slave port. If this port is occupied, a DCM can be added to provide an additional network slave port. In this case, the DCM "listens" to the network for any messages containing the DCM's address. The DCM deciphers the network commands, carries out the request to read or write data, and sends confirmation and/or information to the master station. Since the DCM does not require any programming, you can set the DCM communication parameters, connect the cables and start transferring data.



## Modbus interface

The DCM can be used as a slave station interface to connect your DL405 system to the Modbus network using the Modbus RTU protocol. The host system must be capable of issuing the Modbus commands to read or write the appropriate data.

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

**DL405 PLC**

Field I/O

Software

C-more HMI's

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