

Data Communications Module

D3-DCM

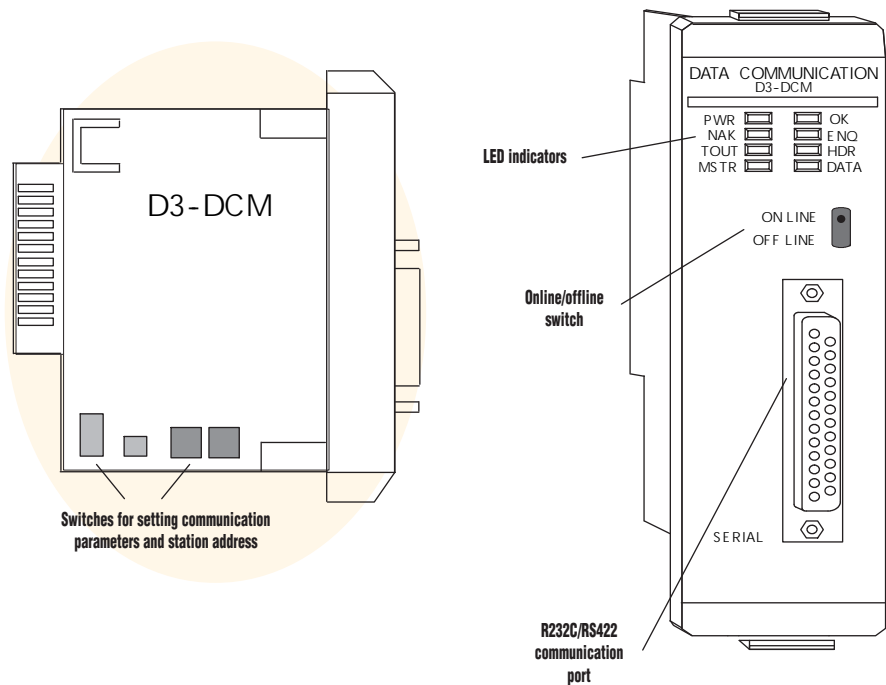


The DL305 Data Communications Module (DCM) is a general purpose communications interface for the DL305 family of PLCs. This module only works with the D3-350 CPUs. It will not work with the D3-330 or D3-340 CPUs or in DC-powered bases. You must use the "-1" type base. The DCM module is primarily used for three purposes:

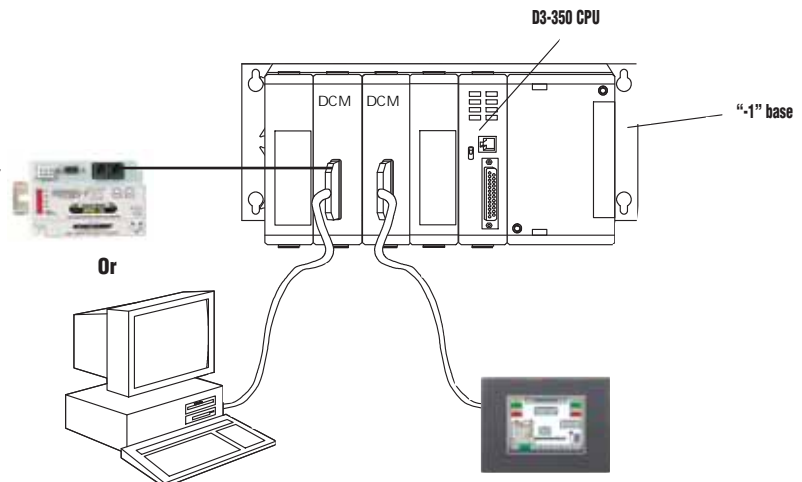
- Extra general purpose communications port to connect a personal computer, operator interface, etc.
- Network interface to a DirectNET network
- Network interface to a MODBUS RTU protocol

The D3-350 CPU offers a built-in communication port. However, if more communication ports are needed, they can easily be added by installing Data Communication Modules. Any device that can be connected to the communication port of a D3-350 CPU can be connected to the DCM. However, make sure the device has a DL305-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.

Specifications	
Module Type	Intelligent
Modules per CPU	3 maximum, slot 0 to 7, cannot use slot 8
CPUs Supporting the DCM	D3-350 (firmware V1.08C or later)
Communications	<ul style="list-style-type: none"> • RS232C/422 signal levels <i>DirectNET™</i> • K-sequence or MODBUS RTU slave protocol • Baud rate selectable from 300 to 38.4K baud • Odd or NO parity, HEX or ASCII mode
Recommended Cable	Belden 9729 or equivalent
Field Wiring Connector	25-pin D-shell connector
Internal Power Consumption	300mA maximum at 9VDC, (supplied by base power supply)
Operating Environment	0°C to 60°C (32°F to 140°F), 5% to 95% humidity (non-condensing)
Manufacturer	Koyo Electronics



Connect the DCM to our MDM-TEL serial modem (see the Communication Products section of this catalog for details on the modem)



Data Communications Module

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 most **DirectLOGIC** or compatible PLCs. The DCM allows the D3-350 CPU to function as a network master or as a network slave.

Low-cost MODBUS interface

The DCM can be used as a slave station interface to connect your D3-350 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. Since the D3-350 CPU can act as a MODBUS master, it is now very easy to implement an entire D3-350 control scheme using the MODBUS RTU protocol.

Network master

The DCM allows the D3-350 to serve as a master of a **DirectNET** Network. The DCM takes communication requests issued from the CPU's RLL program (the network part of the program can be very simple, as few as 7 words) and automatically converts these requests into network commands to read data from or write data to a network slave station. This capability also allows a simple peer-to-peer configuration of two D3-350 systems, each with a DCM. In this scenario, either station can initiate the request for data.

Note: The F1-130 CPUs and the D2-230 do not support DirectNet.

Network slave

The D3-350 CPU has built-in ports that support the **DirectNET** protocol. If these ports are 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.

