

Serial Data Communications Module



The D2-DCM Data Communications Module is used primarily for three reasons:

- Extra communications port to connect a PC, operator interface, etc.
- Network interface to **DirectNET**
- Network interface to a Modbus® network using the RTU protocol

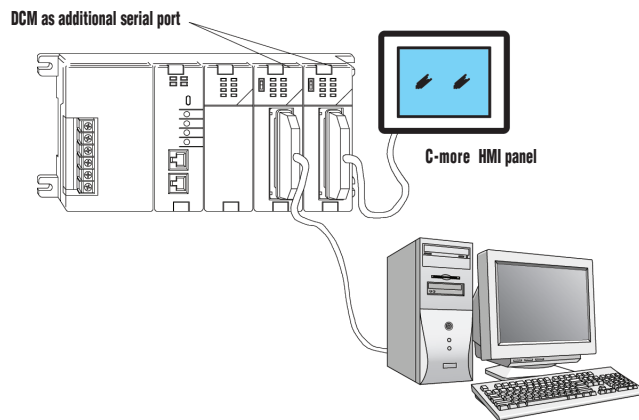
Extra communications port

If additional communication ports are needed, they can easily be added by installing DCM modules. This allows additional connections of devices, such as operator interfaces, PCs, etc. Since the DCM does not require any programming, you can set the DCM communication parameters, connect the cables, and start transferring data. Make sure the device has a DL205 compatible driver.

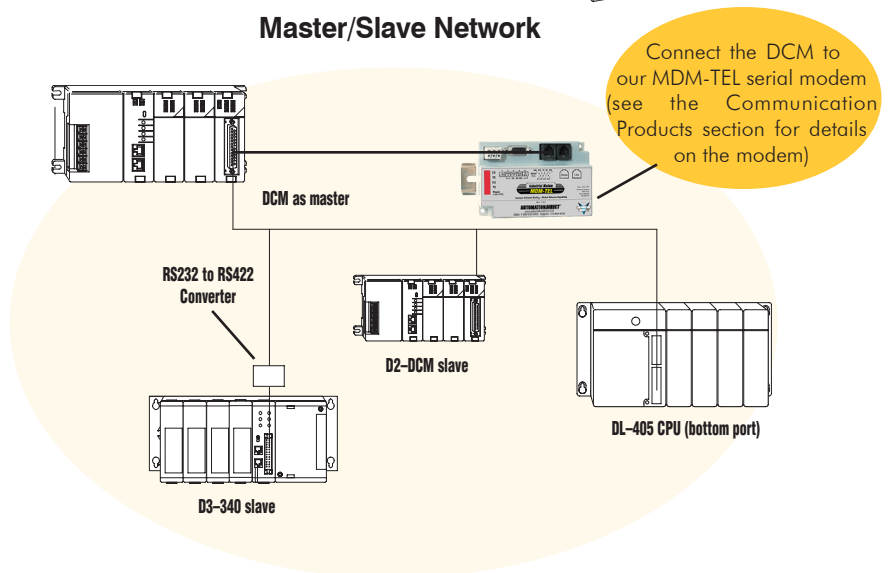
DirectNET network interface

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 PC. 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 DirectLOGIC or compatible PLC. The DCM allows the DL205 to function as a network master or network slave.

| Specifications | |
|-----------------------------------|--|
| Module Type | Intelligent |
| Modules per CPU | 7 maximum, any slot except slot 0, CPU base only |
| CPUs Supported | D2-250-1 and D2-260 |
| Communications | RS-232/422 signal levels, <i>DirectNET</i> Master/Slave, K-sequence or Modbus RTU Slave protocol, Baud rate selectable from 300 baud to 38.4 Kbaud, Odd or No parity, <i>DirectNET</i> HEX or ASCII mode |
| Recommended Cable | Belden 9729 or equivalent (for RS-422) |
| Field Wiring Connector | 25-pin D-shell connector |
| Internal Power Consumption | 300 mA maximum at 5 VDC, (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 |



Master/Slave Network



Modbus RTU interface

The DCM can be used as a slave station interface to connect your DL205 system to a 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. Remember that the bottom port on the D2-250-1 and D2-260 CPUs can act as a Modbus master.



Power Requirements

These charts help determine your power requirements

This section shows the amount of power supplied by each of the base power supplies and the amount of power consumed by each DL205 device. The Power Consumed charts list how much INTERNAL power from each power source is required for the DL205 devices. Use this information when calculating the power budget for your system.

In addition to the internal power sources, the DL205 bases offer a 24 VDC auxiliary power supply with external power connections. This auxiliary power supply can power external devices.

Use ZIPLinks to reduce power requirements

If your application requires a lot of relay outputs, consider using the ZIPLink AC or DC relay output modules. These modules can switch high current (10A) loads without putting a load on your base power budget. Refer to the Terminal Blocks and Wiring Solutions section in this catalog for more information.

This logo is placed next to the I/O modules that are supported by the ZIPLink connection systems. See the I/O module specifications at the end of this section.



| Power Consumed | | |
|---------------------------|--------|---------------|
| Device | 5V(mA) | 24V Auxiliary |
| Operator Interface | | |
| DV-1000 | 150 | 0 |
| C-more Micro-Graphic | 210 | 0 |

| Power Supplied | | | | | | | |
|----------------|----------|--------|---------------|--------------|----------|--------|---------------|
| Device | Price | 5V(mA) | 24V Auxiliary | Device | Price | 5V(mA) | 24V Auxiliary |
| Bases | | | | Bases | | | |
| D2-03B-1 | \$132.00 | 2600 | 300 | D2-06BDC1-1 | \$194.00 | 2600 | None |
| D2-03BDC1-1 | \$150.00 | 2600 | None | D2-06BDC2-1 | \$184.00 | 2600 | 300 |
| D2-04B-1 | \$143.00 | 2600 | 300 | D2-09B-1 | \$220.00 | 2600 | 300 |
| D2-04BDC1-1 | \$171.00 | 2600 | None | D2-09BDC1-1 | \$238.00 | 2600 | None |
| D2-06B-1 | \$176.00 | 2600 | 300 | D2-09BDC2-1 | \$238.00 | 2600 | 300 |

| Power Consumed | | |
|----------------------------------|--------|---------------|
| Device | 5V(mA) | 24V Auxiliary |
| CPUs | | |
| D2-250-1 | 330 | 0 |
| D2-260 | 330 | 0 |
| H2-WPLC*-** | 680 | 0 |
| DC Input Modules | | |
| D2-08ND3 | 50 | 0 |
| D2-16ND3-2 | 100 | 0 |
| D2-32ND3 | 25 | 0 |
| D2-32ND3-2 | 25 | 0 |
| AC Input Modules | | |
| D2-08NA-1 | 50 | 0 |
| D2-08NA-2 | 100 | 0 |
| D2-16NA | 100 | 0 |
| Input Simulator Module | | |
| F2-08SIM | 50 | 0 |
| DC Output Modules | | |
| D2-04TD1 | 60 | 20 |
| D2-08TD1 | 100 | 0 |
| D2-08TD2 | 100 | 0 |
| D2-16TD1-2 | 200 | 80 |
| D2-16TD2-2 | 200 | 0 |
| F2-16TD1P | 70 | 50 |
| F2-16TD2P | 70 | 50 |
| D2-32TD1 | 350 | 0 |
| D2-32TD2 | 350 | 0 |
| AC Output Modules | | |
| D2-08TA | 250 | 0 |
| F2-08TA | 250 | 0 |
| D2-12TA | 350 | 0 |
| Relay Output Modules | | |
| D2-04TRS | 250 | 0 |
| D2-08TR | 250 | 0 |
| F2-08TR(S) | 670 | 0 |
| D2-12TR | 450 | 0 |
| Combination In/Out Module | | |
| D2-08CDR | 200 | 0 |

| Power Consumed | | |
|----------------------------|----------------|-------------------|
| Device | 5V(mA) | 24V Auxiliary |
| Analog Modules | | |
| F2-04AD-1 | 100 | 5 |
| F2-04AD-2 | 110 | 5 |
| F2-08AD-1 | 100 | 5 |
| F2-08AD-2 | 100 | 5 |
| F2-02DA-1 | 40 | 60 (note 1) |
| F2-02DA-1L | 40 | 70 @ 12V (note 1) |
| F2-02DA-2 | 40 | 60 |
| F2-02DA-2L | 40 | 70 @ 12V |
| F2-02DAS-1 | 100 | 50 / channel |
| F2-02DAS-2 | 100 | 60 / channel |
| F2-08DA-1 | 30 | 50 (note 1) |
| F2-08DA-2 | 60 | 140 |
| F2-4AD2DA | 60 | 80 (note 1) |
| F2-8AD4DA-1 | 35 | 100 (note 1) |
| F2-8AD4DA-2 | 35 | 80 (note 1) |
| F2-04RTD | 90 | 0 |
| F2-04THM | 110 | 60 |
| Specialty Modules | | |
| D2-CTRINT | 50* | 0 |
| D2-CM / D2-EM | 100/130 | 0 |
| H2-CTRIO2 | 275 | 0 |
| D2-DCM | 300 | 0 |
| F2-DEVNETS | 160 | 0 |
| F2-SDS-1 | 160 | 0 |
| H2-EBC100 | 300 | 0 |
| H2-EBC-F | 640 | 0 |
| H2-ECOM100 | 300 | 0 |
| H2-ECOM-F | 640 | 0 |
| F2-CP128 | 235 | 0 |
| Remote I/O | | |
| H2-ERM100, (-F) | 300, (-F: 450) | 0 |
| Programming Devices | | |
| D2-HPP | 200 | 0 |

*requires external 5VDC for outputs
Note 1: Add an additional 20 mA per output loop.