

# 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 |
| <b>Operator Interface</b> |        |               |
| DV-1000                   | 150    | 0             |
| C-more Micro-Graphic      | 210    | 0             |

| Power Supplied |       |        |               |              |       |        |               |
|----------------|-------|--------|---------------|--------------|-------|--------|---------------|
| Device         | Price | 5V(mA) | 24V Auxiliary | Device       | Price | 5V(mA) | 24V Auxiliary |
| <b>Bases</b>   |       |        |               | <b>Bases</b> |       |        |               |
| D2-03B-1       | <---> | 2600   | 300           | D2-06BDC1-1  | <---> | 2600   | None          |
| D2-03BDC1-1    | <---> | 2600   | None          | D2-06BDC2-1  | <---> | 2600   | 300           |
| D2-04B-1       | <---> | 2600   | 300           | D2-09B-1     | <---> | 2600   | 300           |
| D2-04BDC1-1    | <---> | 2600   | None          | D2-09BDC1-1  | <---> | 2600   | None          |
| D2-06B-1       | <---> | 2600   | 300           | D2-09BDC2-1  | <---> | 2600   | 300           |

| Power Consumed                   |        |               |
|----------------------------------|--------|---------------|
| Device                           | 5V(mA) | 24V Auxiliary |
| <b>CPUs</b>                      |        |               |
| D2-230                           | 120    | 0             |
| D2-240                           | 120    | 0             |
| D2-250-1                         | 330    | 0             |
| D2-260                           | 330    | 0             |
| H2-WPLC**                        | 680    | 0             |
| <b>DC Input Modules</b>          |        |               |
| D2-08ND3                         | 50     | 0             |
| D2-16ND3-2                       | 100    | 0             |
| D2-32ND3                         | 25     | 0             |
| D2-32ND3-2                       | 25     | 0             |
| <b>AC Input Modules</b>          |        |               |
| D2-08NA-1                        | 50     | 0             |
| D2-08NA-2                        | 100    | 0             |
| D2-16NA                          | 100    | 0             |
| <b>Input Simulator Module</b>    |        |               |
| F2-08SIM                         | 50     | 0             |
| <b>DC Output Modules</b>         |        |               |
| 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             |
| <b>AC Output Modules</b>         |        |               |
| D2-08TA                          | 250    | 0             |
| F2-08TA                          | 250    | 0             |
| D2-12TA                          | 350    | 0             |
| <b>Relay Output Modules</b>      |        |               |
| D2-04TRS                         | 250    | 0             |
| D2-08TR                          | 250    | 0             |
| F2-08TR(S)                       | 670    | 0             |
| D2-12TR                          | 450    | 0             |
| <b>Combination In/Out Module</b> |        |               |
| D2-08CDR                         | 200    | 0             |

| Power Consumed             |            |                   |
|----------------------------|------------|-------------------|
| Device                     | 5V(mA)     | 24V Auxiliary     |
| <b>Analog Modules</b>      |            |                   |
| 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                |
| <b>Specialty Modules</b>   |            |                   |
| D2-CTRINT                  | 50*        | 0                 |
| D2-CM / D2-EM              | 100/130    | 0                 |
| H2-CTRIO                   | 400        | 0                 |
| D2-DCM                     | 300        | 0                 |
| F2-DEVNETS                 | 160        | 0                 |
| F2-SDS-1                   | 160        | 0                 |
| H2-PBC                     | 530        | 0                 |
| H2-EBC(-F)                 | 450, (640) | 0                 |
| H2-ECOM(-F)                | 450, (640) | 0                 |
| H2-ECOM100                 | 300        | 0                 |
| F2-CP128                   | 235        | 0                 |
| <b>Remote I/O</b>          |            |                   |
| H2-ERM(-F)                 | 320, (450) | 0                 |
| D2-RMSM                    | 200        | 0                 |
| D2-RSSS                    | 150        | 0                 |
| <b>Programming Devices</b> |            |                   |
| D2-HPP                     | 200        | 0                 |

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

# Dimensions and Installation

Understanding the installation requirements for your DL205 system will help ensure that the DL205 products operate within their environmental and electrical limits.

## Plan for safety

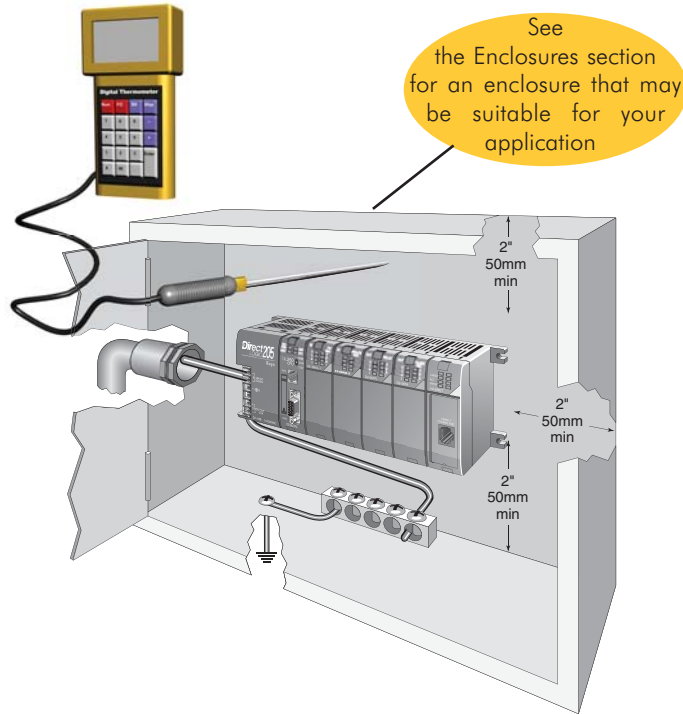
This catalog should never be used as a replacement for the user manual. The user manual, D2-USER-M (sold separately or downloadable online), contains important safety information that must be followed. The system installation should comply with all appropriate electrical codes and standards.

## Environmental specifications

The Environmental Specifications table at the right lists specifications that apply globally to the DL205 system (CPUs, bases, and I/O modules). Be sure that the DL205 system is operated within these environmental specifications.

## Base dimensions and mounting

Use the diagrams below to make sure the DL205 system can be installed in your application. To ensure proper airflow for cooling purposes, DL205 bases must be mounted horizontally. It is important to check these dimensions against the conditions required for your application. For example, it is recommended that approximately 3" of space is left in front PLC surface for ease of access and cable clearances. Also, check the installation guidelines for recommended cabinet clearances.



| Environmental Specification          | Rating                                     |
|--------------------------------------|--|
| <b>Storage Temperature</b>           | -4°F - 158°F (-20°C to 70°C)               |
| <b>Ambient Operating Temperature</b> | 32°F - 131°F (0°C to 55°C)                 |
| <b>Ambient Humidity</b>              | 30%-95% relative humidity (non-condensing) |
| <b>Vibration Resistance</b>          | MIL STD 810C, Method 514.2                 |
| <b>Shock Resistance</b>              | MIL STD 810C, Method 516.2                 |
| <b>Noise Immunity</b>                | NEMA (ICS3-304)                            |
| <b>Atmosphere</b>                    | No corrosive gases                         |

| Base                                      | A      | B     | C      | D     |        |       |        |       |
|---|--------|-------|--------|-------|--------|-------|--------|-------|
| <b>D2-03B-1, D2-03BDC1-1</b>              | 6.77"  | 172mm | 6.41"  | 163mm | 5.8"   | 148mm | 7.24"  | 184mm |
| <b>D2-04B-1, D2-04BDC1-1</b>              | 7.99"  | 203mm | 7.63"  | 194mm | 7.04"  | 179mm | 8.46"  | 215mm |
| <b>D2-06B-1, D2-06BDC1-1, D2-06BDC2-1</b> | 10.43" | 265mm | 10.07" | 256mm | 9.48"  | 241mm | 10.90" | 277mm |
| <b>D2-09B-1, D2-09BDC1-1, D2-09BDC2-1</b> | 14.09" | 358mm | 13.74" | 349mm | 13.14" | 334mm | 14.56" | 370mm |

