

# Analog I/O Modules

The Do-more H2 Series PLC supports all analog I/O modules available for the DL205 PLC.

**F2-04AD-1****F2-04AD-2****F2-08AD-1****F2-08AD-2****F2-04RTD****F2-04THM**

| Analog Input Modules             |                    |                      |          |
|----------------------------------|--------------------|----------------------|----------|
| Part Number                      | Number of Channels | Description          | Price    |
| <a href="#"><u>F2-04AD-1</u></a> | 4                  | Analog Current Input | \$360.00 |
| <a href="#"><u>F2-04AD-2</u></a> | 4                  | Analog Voltage Input | \$393.00 |
| <a href="#"><u>F2-08AD-1</u></a> | 8                  | Analog Current Input | \$442.00 |
| <a href="#"><u>F2-08AD-2</u></a> | 8                  | Analog Voltage Input | \$469.00 |
| <a href="#"><u>F2-04RTD</u></a>  | 4                  | RTD                  | \$539.00 |
| <a href="#"><u>F2-04THM</u></a>  | 4                  | Thermocouple         | \$529.00 |

**F2-02DA-1****F2-02DA-2****F2-02DA-2L****F2-02DAS-1****F2-02DAS-2****F2-08DA-1****F2-08DA-2**

| Analog Output Modules               |                    |                                |          |
|-------------------------------------|--------------------|--------------------------------|----------|
| Part Number                         | Number of Channels | Description                    | Price    |
| <a href="#"><u>F2-02DA-1</u></a>    | 2                  | Analog Current Output          | \$282.00 |
| <a href="#"><u>F2-02DA-2</u></a>    | 2                  | Analog Voltage Output          | \$295.00 |
| <a href="#"><u>F2-02DA-2L</u></a> * | 2                  | Analog Voltage Output          | retired  |
| <a href="#"><u>F2-02DAS-1</u></a>   | 2                  | Isolated Analog Current Output | \$393.00 |
| <a href="#"><u>F2-02DAS-2</u></a>   | 2                  | Isolated Analog Voltage Output | \$428.00 |
| <a href="#"><u>F2-08DA-1</u></a>    | 8                  | Analog Current Output          | \$535.00 |
| <a href="#"><u>F2-08DA-2</u></a>    | 8                  | Analog Voltage Output          | \$482.00 |

\* F2-02DA-2L works with external 12VDC power instead of external 24VDC power.

**F2-4AD2DA****F2-8AD4DA-1****F2-8AD4DA-2**

| Analog Input/Output Modules        |                    |                             |          |
|------------------------------------|--------------------|-----------------------------|----------|
| Part Number                        | Number of Channels | Description                 | Price    |
| <a href="#"><u>F2-4AD2DA</u></a>   | 4/2                | Analog Current Input/Output | \$505.00 |
| <a href="#"><u>F2-8AD4DA-1</u></a> | 8/4                | Analog Current Input/Output | \$634.00 |
| <a href="#"><u>F2-8AD4DA-2</u></a> | 8/4                | Analog Voltage Input/Output | \$626.00 |

For more detailed specifications and wiring diagrams, please refer to the DL205 PLC section in this catalog.

# Analog I/O Modules

The following table may be helpful for you to select the right modules for your application.

| Analog Input Modules |                                                |                                                                          |                                       |
|----------------------|------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------|
| Input Type           | Specification                                  | Number of Input Points per Module                                        |                                       |
|                      |                                                | 4                                                                        | 8                                     |
| Current              | 0–20 mA                                        |                                                                          | <a href="#">F2-8AD4DA-1</a> (16 bit)  |
|                      | 4–20 mA                                        | <a href="#">F2-04AD-1</a> (12 bit)<br><a href="#">F2-4AD2DA</a> (12 bit) | <a href="#">F2-08AD-1</a> (12 bit)    |
| Voltage              | 0–5 V, 0–10 V, $\pm 5V$ , $\pm 10V$            | <a href="#">F2-04AD-2</a> (12 bit)                                       | <a href="#">F2-08AD-2</a> (12/13 bit) |
|                      | 0–5 V, 0–10 V                                  |                                                                          | <a href="#">F2-8AD4DA-2</a> (16 bit)  |
|                      | 0–5 V, 0–156.25 mV, $\pm 5V$ , $\pm 156.25$ mV | <a href="#">F2-04THM</a> (16 bit)                                        |                                       |
| RTD                  | Pt100, Pt1000, jPt100, CU-10V, CU-50V          | <a href="#">F2-04RTD</a> (0.1 degree)                                    |                                       |
| Thermocouple         | Type J, E, K, R, S, T, B, N, C                 | <a href="#">F2-04THM</a> (0.1 degree)                                    |                                       |

| Analog Output Modules |                                     |                                                                                                                 |                                         |                                    |
|-----------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------|
| Output Type           | Specification                       | Number of Output Points per Module                                                                              |                                         |                                    |
|                       |                                     | 2                                                                                                               | 4                                       | 8                                  |
| Current               | 4–20 mA                             | <a href="#">F2-02DA-1</a> (12-bit)<br><a href="#">F2-02DAS-1</a> (16-bit)<br><a href="#">F2-4AD2DA</a> (12 bit) | <a href="#">F2-8AD4DA-1</a> (16 bit)    | <a href="#">F2-08DA-1</a> (12 bit) |
| Voltage               | 0–5 V, 0–10 V, $\pm 5V$ , $\pm 10V$ | <a href="#">F2-02DA-2</a> (12 bit)<br><a href="#">F2-02DA-2L</a> (12 bit)                                       |                                         |                                    |
|                       | 0–5 V, 0–10 V                       | <a href="#">F2-02DAS-2</a> (16-bit)                                                                             | <a href="#">F2-8AD4DA-2</a> (15/16 bit) | <a href="#">F2-08DA-2</a> (12 bit) |

Note 1: [F2-02DA-2L](#) works with external 12VDC power instead of external 24VDC power.

For more detailed specifications and wiring diagrams, please refer to the DL205 PLC section in this catalog.

# Do-more H2 Series PLC Overview

## Module Compatibility

The following table shows which DL205 components are supported by the H2-DM1 and H2-DM1E Do-more CPUs.

| Module Compatibility Table  |                             |        |                                |                             |        |
|-----------------------------|-----------------------------|--------|--------------------------------|-----------------------------|--------|
| Module                      | Part Number                 | Status | Module                         | Part Number                 | Status |
| <b>Base Units</b>           | <a href="#">D2-03B-1</a>    | ✓      | <b>Analog I/O Modules</b>      | <a href="#">D2-03B-1</a>    | ✓      |
|                             | <a href="#">D2-04B-1</a>    | ✓      |                                | <a href="#">D2-04B-1</a>    | ✓      |
|                             | <a href="#">D2-06B-1</a>    | ✓      |                                | <a href="#">D2-06B-1</a>    | ✓      |
|                             | <a href="#">D2-09B-1</a>    | ✓      |                                | <a href="#">D2-09B-1</a>    | ✓      |
|                             | <a href="#">D2-03BDC1-1</a> | ✓      |                                | <a href="#">D2-03BDC1-1</a> | ✓      |
|                             | <a href="#">D2-04BDC1-1</a> | ✓      |                                | <a href="#">D2-04BDC1-1</a> | ✓      |
|                             | <a href="#">D2-06BDC1-1</a> | ✓      |                                | <a href="#">D2-09BDC1-1</a> | ✓      |
|                             | <a href="#">D2-09BDC1-1</a> | ✓      |                                | <a href="#">D2-06BDC2-1</a> | ✓      |
|                             | <a href="#">D2-06BDC2-1</a> | ✓      |                                | <a href="#">D2-09BDC2-1</a> | ✓      |
|                             | <a href="#">D2-09BDC2-1</a> | ✓      |                                | <a href="#">D2-08ND3</a>    | ✓      |
| <b>Discrete I/O Modules</b> | <a href="#">D2-16ND3-2</a>  | ✓      | <b>Local Expansion Modules</b> | <a href="#">D2-16ND3-2</a>  | ✓      |
|                             | <a href="#">D2-32ND3</a>    | ✓      |                                | <a href="#">D2-32ND3</a>    | ✓      |
|                             | <a href="#">D2-32ND3-2</a>  | ✓      | <b>Specialty Modules</b>       | <a href="#">D2-32ND3-2</a>  | ✓      |
|                             | <a href="#">D2-08NA-1</a>   | ✓      |                                | <a href="#">D2-08NA-1</a>   | ✓      |
|                             | <a href="#">D2-08NA-2</a>   | ✓      |                                | <a href="#">D2-08NA-2</a>   | No     |
|                             | <a href="#">D2-16NA</a>     | ✓      |                                | <a href="#">D2-16NA</a>     | No     |
|                             | <a href="#">D2-04TD1</a>    | ✓      |                                | <a href="#">D2-04TD1</a>    | ✓      |
|                             | <a href="#">D2-08TD1</a>    | ✓      |                                | <a href="#">D2-08TD2</a>    | No     |
|                             | <a href="#">D2-08TD2</a>    | ✓      |                                | <a href="#">D2-16TD1-2</a>  |        |
|                             | <a href="#">D2-16TD1-2</a>  | ✓      |                                | <a href="#">D2-16TD2-2</a>  | ✓      |
|                             | <a href="#">D2-16TD2-2</a>  | ✓      |                                | <a href="#">F2-16TD1P</a>   | No     |
|                             | <a href="#">F2-16TD1P</a>   | ✓      |                                | <a href="#">F2-16TD2P</a>   | No     |
|                             | <a href="#">F2-16TD2P</a>   | ✓      |                                | <a href="#">D2-32TD1</a>    | ✓      |
|                             | <a href="#">D2-32TD1</a>    | ✓      |                                | <a href="#">D2-32TD2</a>    |        |
|                             | <a href="#">D2-32TD2</a>    | ✓      |                                | <a href="#">D2-08TA</a>     | ✓      |
|                             | <a href="#">D2-08TA</a>     | ✓      |                                | <a href="#">F2-08TA</a>     | ✓      |
|                             | <a href="#">F2-08TA</a>     | ✓      |                                | <a href="#">D2-12TA</a>     | No     |
|                             | <a href="#">D2-12TA</a>     | ✓      |                                | <a href="#">D2-04TRS</a>    | ✓      |
|                             | <a href="#">D2-04TRS</a>    | ✓      |                                | <a href="#">D2-08TR</a>     | No     |
|                             | <a href="#">D2-08TR</a>     | ✓      |                                | <a href="#">F2-08TR</a>     | ✓      |
|                             | <a href="#">F2-08TR</a>     | ✓      |                                | <a href="#">F2-08TRS</a>    |        |
|                             | <a href="#">F2-08TRS</a>    | ✓      | <b>Programmer</b>              | <a href="#">D2-12TR</a>     | No     |
|                             | <a href="#">D2-12TR</a>     | ✓      |                                | <a href="#">D2-08CDR</a>    |        |
|                             | <a href="#">D2-08CDR</a>    | ✓      |                                |                             |        |

✓ = Supported    No = Not Supported

# Do-more H2 Series PLC Overview

## Communications

The Do-more H2 Series PLC supports many communication protocols. The following table shows which CPU module communications port or specialty module supports each protocol.

| Protocols                                                                           | CPU Modules             |                    |                | Specialty Modules |                                |                  |
|-------------------------------------------------------------------------------------|-------------------------|--------------------|----------------|-------------------|--------------------------------|------------------|
|                                                                                     | <i>H2-DM1 / H2-DM1E</i> |                    | <i>H2-DM1E</i> | <i>H2-ECOM100</i> | <i>H2-SERIO<br/>H2-SERIO-4</i> | <i>H2-ERM100</i> |
|                                                                                     | USB Port                | RS-232 Serial Port | Ethernet Port  |                   |                                |                  |
| <i>Do-more Designer Programming</i>                                                 | Yes                     | Yes                | Yes            | Yes               | Yes                            |                  |
| <i>Modbus/RTU Client (Master)</i>                                                   |                         | Yes                |                |                   | Yes                            |                  |
| <i>Modbus/RTU Server (Slave)</i>                                                    |                         | Yes                |                |                   | Yes                            |                  |
| <i>Modbus/TCP Client (Master)</i>                                                   |                         |                    | Yes            | Yes               |                                |                  |
| <i>Modbus/TCP Server (Slave)</i>                                                    |                         |                    | Yes            | Yes               |                                |                  |
| <i>DirectLOGIC RX/WX Client (Master)</i>                                            |                         |                    | Yes            | Yes               |                                |                  |
| <i>DirectLOGIC RX/WX Server (Slave)</i>                                             |                         |                    | Yes            | Yes               |                                |                  |
| <i>K-Sequence Server (Slave)</i>                                                    |                         | Yes                |                | Yes               | Yes                            |                  |
| <i>DirectNET Server (Slave)</i>                                                     |                         |                    |                | Yes               |                                |                  |
| <i>Embedded Web Server: HTTP (unsecure)</i>                                         |                         |                    |                | Yes               |                                | Yes              |
| <i>Ethernet: HTML (unsecure) configuration</i>                                      |                         |                    |                | Yes               |                                | Yes              |
| <i>HEI Ethernet Remote I/O Master</i>                                               |                         |                    | Yes            |                   |                                | Yes              |
| <i>SMTP (EMail) Client<br/>w/Authentication</i>                                     |                         |                    | Yes            |                   |                                |                  |
| <i>Simple Network Time Protocol (SNTP)<br/>Client</i>                               |                         |                    | Yes            |                   |                                |                  |
| <i>Do-more/PEERLINK</i>                                                             |                         |                    | Yes            |                   |                                |                  |
| <i>Do-more Time Synchronization Protocol<br/>(Client, Server, Alternate Client)</i> |                         |                    | Yes            |                   |                                |                  |
| <i>Do-more Logger/UDP</i>                                                           |                         |                    | Yes            |                   |                                |                  |
| <i>Serial ad-hoc ASCII/Binary Programatic<br/>Control</i>                           |                         | Yes                |                |                   | Yes                            |                  |
| <i>UDP ad-hoc Programmatic Control</i>                                              |                         |                    | Yes            |                   |                                |                  |
| <i>TCP Client Programmatic Control</i>                                              |                         |                    | Yes            |                   |                                |                  |
| <i>TCP Server Programmatic Control</i>                                              |                         |                    | Yes            |                   |                                |                  |

Blank = Not Supported