



## **M2-DI Digital Input Controller**

The M2-DI digital input controller utilizes the M2 hardware platform, but comes with one or two M2-CDI plug in modules that plug into the M2 expansion slots. This eliminates any digital output functionality from the controller. The M2-DI is identical to the M2, it just removes digital outputs and replaces them with 16 digital inputs via the M2-CDI plug in cards. See the M2-CDI data-sheet for more information on how these digital inputs are wired and configured.

### **Specifications**

#### **Power Requirements**

**Input Voltage:** 23 to 28 VAC 50/60 Hz

**Consumption:** 1.7 VA (without optional plug-in modules)  
10.3 VA (all optional plug-in modules used)

**Input Voltage Fuse:** Resettable fuse rated at 1.1A at 24VAC

#### **Inputs/Outputs**

##### **Analog Inputs:**

- Eight (8) Analog Inputs.
- Can be independently configured for thermistor\*, digital, 0-10vdc or 4-20mA.
- Up to 16 dedicated digital inputs via M2-CDI cards

\* Thermistor Inputs are 3k, 10k, 100kohm thermistor, Type 3.

##### **Analog Outputs:**

- Eight (8) 0-10vdc Analog Outputs\*.

\* Can drive down to 10Kohm loads at 10vdc

## **Operating Environment**

**Temperature:** 40 to 140 F (4 to 60 C) \*

**Humidity:** 10-90% Relative, noncondensing \*\*

\* Storage Temperature: -10 to 150 F (-23 to 66 C)

\*\* Storage Humidity: 0-95% Relative, noncondensing

## **Network Communication**

**Method:** RS-485

**Cable:** 3 conductor, 18 guage, shielded, up to 8000ft max.

**Baud Rate (selectable):** 57.6k, 38.4k, 19.2k, 9600, 2400, 1200

## **Memory Backup**

**Battery:** 7 year lithium

## **Physical Dimensions**

**Height:** 70 mm (2.75 in)

**Width:** 78 mm (3.0 in)

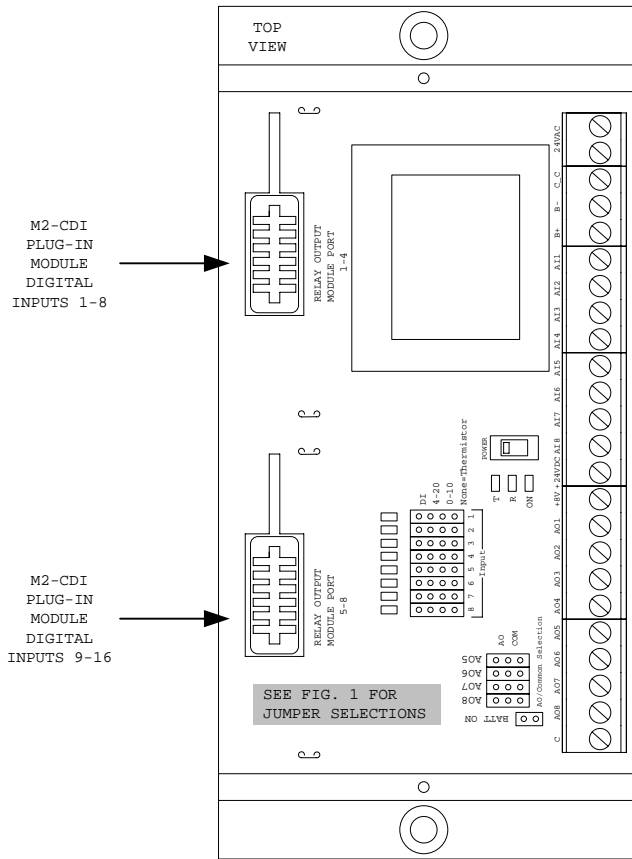
**Length:** 160 mm (6.3 in)

**Mounting Holes:** 148.5 mm (5.85 in) Center to Center

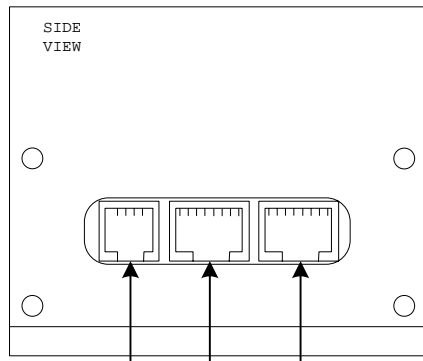
**Weight:** 1.2 lb

## **Agency Approvals**

**Listed Device:** UL Listed under E76576 24G9



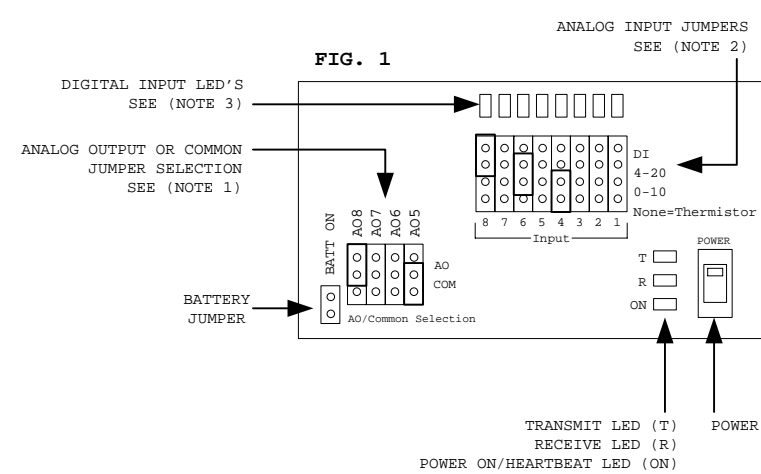
1	24VAC HOT
2	24VAC NEUTRAL
3	C_C COMMON RS-485 LAN COMM CONNECTION
4	B- B- RS-485 LAN COMM CONNECTION
5	B+ B+ RS-485 LAN COMM CONNECTION
6	AI-1 ANALOG INPUT #1
7	AI-2 ANALOG INPUT #2
8	AI-3 ANALOG INPUT #3
9	AI-4 ANALOG INPUT #4
10	AI-5 ANALOG INPUT #5
11	AI-6 ANALOG INPUT #6
12	AI-7 ANALOG INPUT #7
13	AI-8 ANALOG INPUT #8
14	+24V +24VDC OUTPUT
15	+8V +8VDC TRANSDUCER POWER 25mA MAX
16	AO-1 ANALOG OUTPUT #1
17	AO-2 ANALOG OUTPUT #2
18	AO-3 ANALOG OUTPUT #3
19	AO-4 ANALOG OUTPUT #4
20	AO-5 [COM] ANALOG OUTPUT #5 OR IO COMMON (JUMPER SELECTABLE)
21	AO-6 [COM] ANALOG OUTPUT #6 OR IO COMMON (JUMPER SELECTABLE)
22	AO-7 [COM] ANALOG OUTPUT #7 OR IO COMMON (JUMPER SELECTABLE)
23	AO-8 [COM] ANALOG OUTPUT #8 OR IO COMMON (JUMPER SELECTABLE)
24	COM INPUT AND OUTPUT COMMON



RJ45 CONNECTION TO DU-1 OR HANDHELD M2-HH

**M2-DI Installation Notes:**

- Make sure that BATT JUMPER is in place before powering unit ON with on board POWER switch.
- When unit is powered, ON LED will flash 1 second on, 1 second off continuously when controller is operating properly. This flashing serves as a heartbeat indicator and that the unit is on. It will not flash or illuminate when unit is powered off.
- When inserting or removing plug-in modules or display units such as DU-1, M2 must be powered OFF or damage will occur.
- M2-DI is internally protected from over current by a 1.1 amp self resetting fuse. This will protect the 24VAC transformer powering the M2-DI from being damaged due to the unit failing internally.
- The +8v output is used for future low power Solidyne transducers.



NOTE 1: JUMPERS DEFINE THAT TERMINALS 20-23 ARE USED AS ANALOG OUTPUT OR ADDITIONAL INPUT OR OUTPUT COMMON (EX. AO8 JUMPER SET TO AO, AO5 JUMPER SET TO COMMON).

NOTE 2: JUMPERS DEFINE THAT INPUT IS DIGITAL, 4-20MA, 0-10V OR THERMISTOR. (EX. INPUT 4 JUMPER SET TO 0-10VDC, INPUT 6 JUMPER SET TO 4-20MA, INPUT 8 JUMPER SET TO DIGITAL). NO JUMPER NEEDED TO DEFINE INPUT AS THERMISTOR.

NOTE 3: DIGITAL INPUT LED'S WILL ONLY ILLUMINATE WHEN INPUT IS SHORTED TO COM.