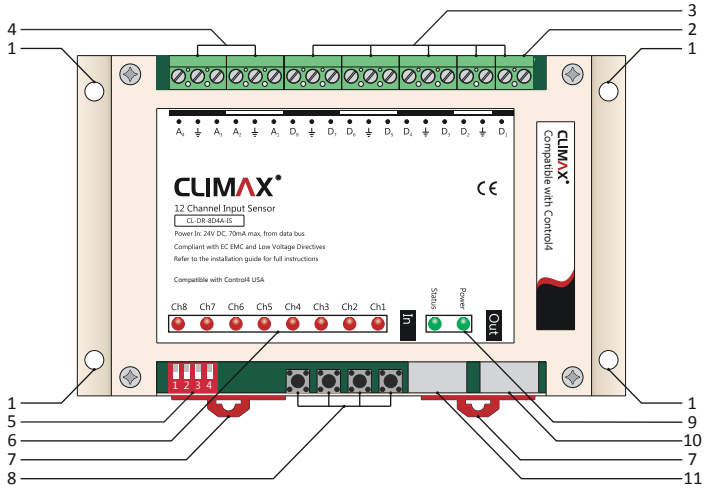
PART DESCRIPTION



1. Screw holes
2. +5V DC output (200mA)
3. Digital inputs
4. Analog inputs
5. Pull-up switch
6. Channel LEDs
7. Rail mounting clips
8. Control buttons
9. Status LEDs
10. RS-485 jack
11. RS-232 jack

CLIMAX®

Live in Harmony

INSTALLATION GUIDE version 1.0.5

12 Channel Input Sensor (CL-DR-8D4A-IS)

Product Specification	Input Voltage		7V-24V DC (24V DC is recommended)
	Input Current		60mA (for 24V DC)
	I/O Connections	C-Bus	2 X RJ45
		RS-232 (Direct Mode)	1 X RJ45
		Input	8 X digital dry contact input (rising-cage 5mm screw terminals)
			4 X analog input (0-5V DC) (rising-cage 5mm screw terminals)

SETUP & PROGRAMMING

Change Module Address

In order to change the module address follow steps below consecutively and uninterruptedly:

1. Disconnect the main power. Hold button #1 & #2 simultaneously (button's and LED's number sequence is considered from right to left as shown in following picture).

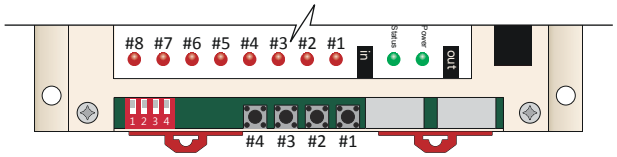
2. Reconnect the main power. Release button #2 after LEDs #1 to #4 flashed. Then release button #1 after LEDs #1 and #2 flashed. Power LED will start flashing quickly.

3. Press button #1, 4 times. Then the module address will be displayed by LEDs in binary.

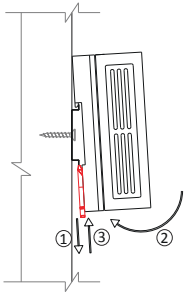
4. Press button #1 to increase the module address and button #2 to decrease it.

5. Press button #3 to save the module address and button #4 to cancel. After saving the new module address or canceling the process, the module will reset.

⚠ **The devices which are connected from a common interface cannot have same module address.**



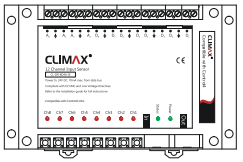
MOUNTING



Rail Mounting

12 Channel Input Sensor is designed to be installed on a standard 35 mm wide DIN rail (EN 50022, BS 5584).

Hook the module from the top, pull down the rail mounting clips, push the module to the rail and release the rail mounting clips.



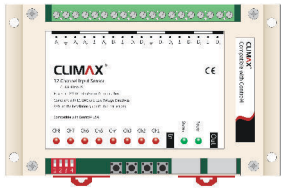
Screw Mounting

Screw the module to any surface through 4 corner screw holes.

WIRING 1

⚠ ***Before wiring the device, always unplug the main power.***

Follow this wiring for direct or network use of module.



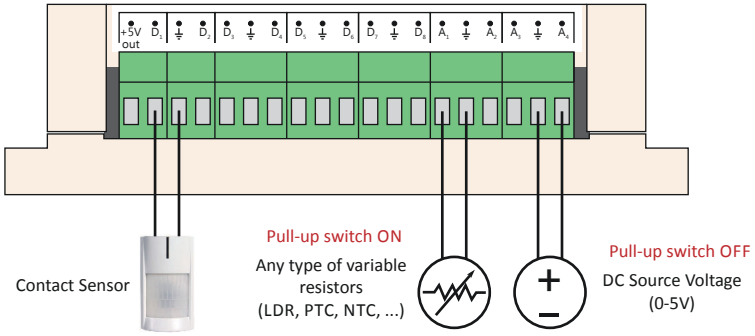
From:
Control4 home controller (direct mode) or previous module (network mode)

From: Main Power 12V-24V DC (direct mode)
To: Next Module (network mode)

⚠ **Use the terminator socket for the last module in C-Bus network.**

WIRING 2

Follow the diagram below to connect module to digital & analog inputs.



⚠ **Only voltage free connection must be applied for digital inputs.**
⚠ **The voltage for analog inputs must be between 0-5V DC.**
⚠ **Consider right polarity.**

SETUP & PROGRAMMING

Pull-up Switch function

"Pull-up switch" is designed to determine working mode of 4 analog inputs.
For each input when "Pull-up switch" is "off" corresponding input sensor is floated. In this mode a DC source voltage is needed to ensure proper functionality of channel.
When pull-up switch is "on", the channel will be connected to VCC through a pull-up resistor (10kΩ). This mode is recommended because the channel will be more stable when floated or disconnected from any source voltage. In this mode by adding only variable resistor such as LDR, PTC, NTC, etc. The variation would be sensed and its sensitivity depends on type of variable resistor.

Sensitivity modes (Low/high resolution)

There are two modes of sensitivity. In low resolution mode 0-5V range will be reflected in a 0-100 range. Each step would be 0.05V in low resolution mode. In high resolution mode 0-5V range will be reflected in a 0-1023 (10bit) range and each step would be 0.0048V which is more sensitive.
Changing sensitivity mode is possible through software settings.

SETUP & PROGRAMMING

Module's LEDs

- *Power:* When the module is connected to main power, "Power LED" will flash smoothly.
- *Status:* When the module is connected to C-Bus network and receives valid data packets, "Status LED" flashes quickly. "Status LED" is "off" when the module doesn't receive any data. In direct mode, "Status LED" will flash once when the module receives a valid data packet from Home Controller. When the module is receiving invalid data packet ,"Status LED" will remain "on" for 5 seconds.
  In some cases, when a new module is added to C-Bus network, "Status LED" might remain "on" for 5 seconds. This situation must not be considered as an error.
- *Ch1 to Ch8:* Shows the status of module's inputs. Also when the module is connected to main power, The channel LEDs will display the module address in binary for 2 seconds.

Switching between Direct Mode and Network Mode

1. Disconnect the main power. Hold button #1 & #2 simultaneously (button's and LED's number sequence is considered from right to left as shown in page 4).
2. Reconnect the main power. Release button #2 after LEDs #1 to #4 flashed. Then release button #1 after LEDs #1 and #2 flashed.
3. Press button #2, 4 times.
4. To switch between direct and network mode, press button #2. LED #2 will display whether the device is used in direct or network mode. If it is "on", the device is in direct mode and if it is not the device is working in network mode.
5. Press button #3 to save the changes and button #4 to cancel.