Intelligent Building Solutions

Installation Manual

CDM 2030 D
Analog Driver

0-10v analog output, DIN-rail mounting

CIB-tech

Introduction

The CDM 2030 D is an analog control device with an industry standard analog 0-10V DC output, part of the CIB-tech automation system.

Additional equipment required

1. **Functional CIB-tech system**
   A minimal number of essential CIB-tech components to make a functional CIB-tech system[1]

2. **Command button (optional)**
   Simple normally-open type (contact is closed when button is pressed) push button. Most types of flush mounted or DIN-rail mounted simple push buttons are suitable[2]

Technical Specifications

Electrical characteristics

- **Power Supply**
  The CDM 2030 D functions as a node in a CIB-tech system, being powered from the CIB-tech system's power supply via the CIB-tech connectors.
  - Operating voltage range: 20 to 28V DC (nominal 24V DC)
  - Supply current
    - Standby current : 48mA
    - Maximum current: 58mA

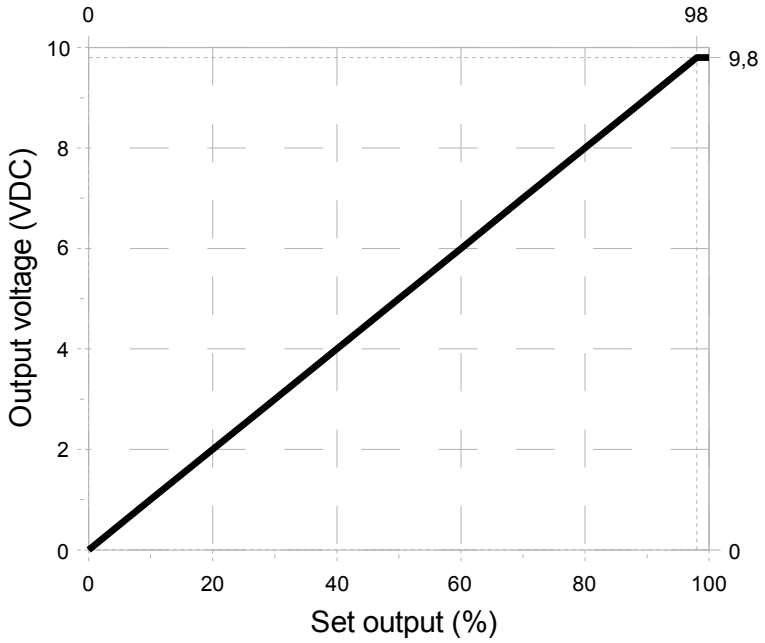
- **Analog output:**
  - Output voltage range (see output characteristics below): 0-10V DC
  - Maximum current: 1mA
  - Output accuracy: 1%
  - Output resolution: 0.1V

- **I/O isolation**
  The CDM 2030 D device has an internal galvanic isolation, that separates the CIB-tech system from the 0-10V analog output and as result, from the controlled device.
  NOTE: The command button input is on the CIB-tech system side of the isolation.

- **Signal Input**
  - Command button: N.O. with voltage free contacts

1 See "CIB-tech installation manual" for details.
2 For din-rail type push-button, IBS product BSS 10 DM or BSD 10 DM might be used.

- **Output characteristics**



Mechanical characteristics

The CDM 2030 D has a standard 2-module wide enclosure for M36 type DIN-Rail

- Dimensions: 102mm W x 35mm L x 60mm D
- Weight: 85g

Environmental characteristics

- Operating temperature: -10ºC to 85ºC
- Storage temperature: -25ºC to 100ºC

Key Features

- Digitally controls analog actuators in 100 steps via industry standard 0-10VDC interface;
- Single push button is required to change output value (up / down) and switch on / off;
- Maintains previously set output level when switched off;
- Soft on / off and output change transitions
- Output state and level remotely controllable via the CIB-tech system
- Internal bi-color LED, indicating the output state (green: off / red: on)
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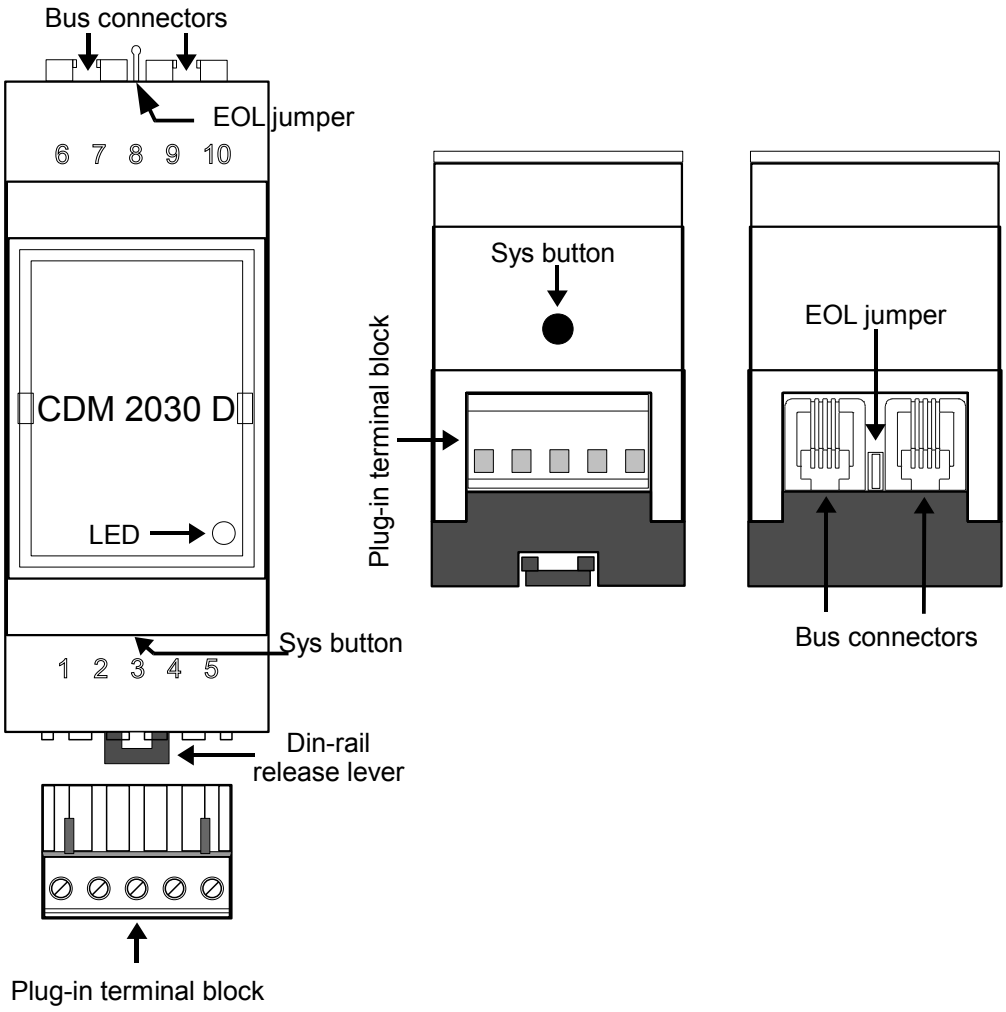
NOTE: Output is considered OFF when output value is 0VDC, output is considered ON when output value is greater than 0VDC. Switching ON is considered setting the output to the last value that was set before the last switching OFF condition. Switching ON after a power on or reset condition, the output will go to 100%. Switching ON/OFF using the push button is done by pushing (for a short time) the push-button. Changing the output value is done by keeping the push-button pressed until desired value is reached (if the change direction is the desired one). The direction of output change toggles each time the push-button pressed.

The CDM 2030 D is meant to be installed on a standard M36 type DIN-Rail.

Part description

- **Bus connectors:**
  - 4P4C modular jack connectors for CIB-tech connection[1]
- **Sys button:**
  - push-button for CIB-tech system configuration
- **EOL jumper:**
  - CIB-tech system's End Of Line jumper[1];
- **LED:**
  - indicator LED for output state (green: off / red: on);
- **Din-rail release lever:**
  - lever for removing the device from the M36 DIN-Rail
- **Connector type terminal block:** terminals for connecting external devices
  1. Push button – Common contact
  2. Push button – Normally open contact
  3. Do not connect
  4. Analog output - GND
  5. Analog output - 0-10VDC

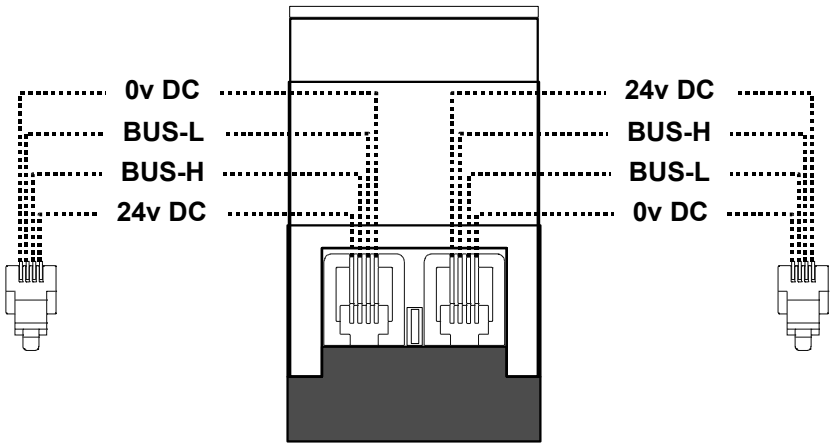


1 See "CIB-tech installation manual" for details.

Wiring diagrams

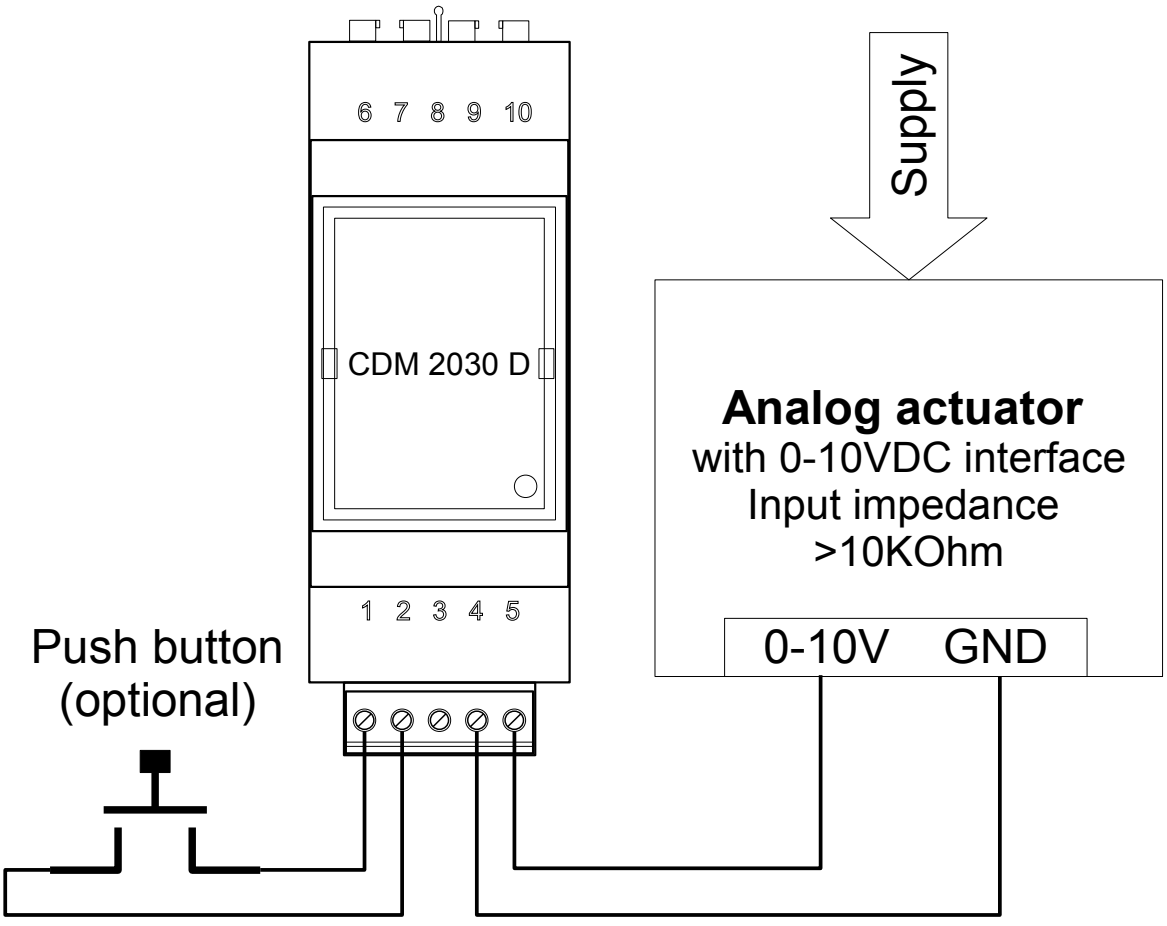
Connection to CIB-tech system:

Use the CDM 2030 D device's two 4P4C modular jack connectors to connect it to the CIB-tech systems (chain like) bus. Do not forget to remove the EOL jumper if the device is not the last element of the chain[1]



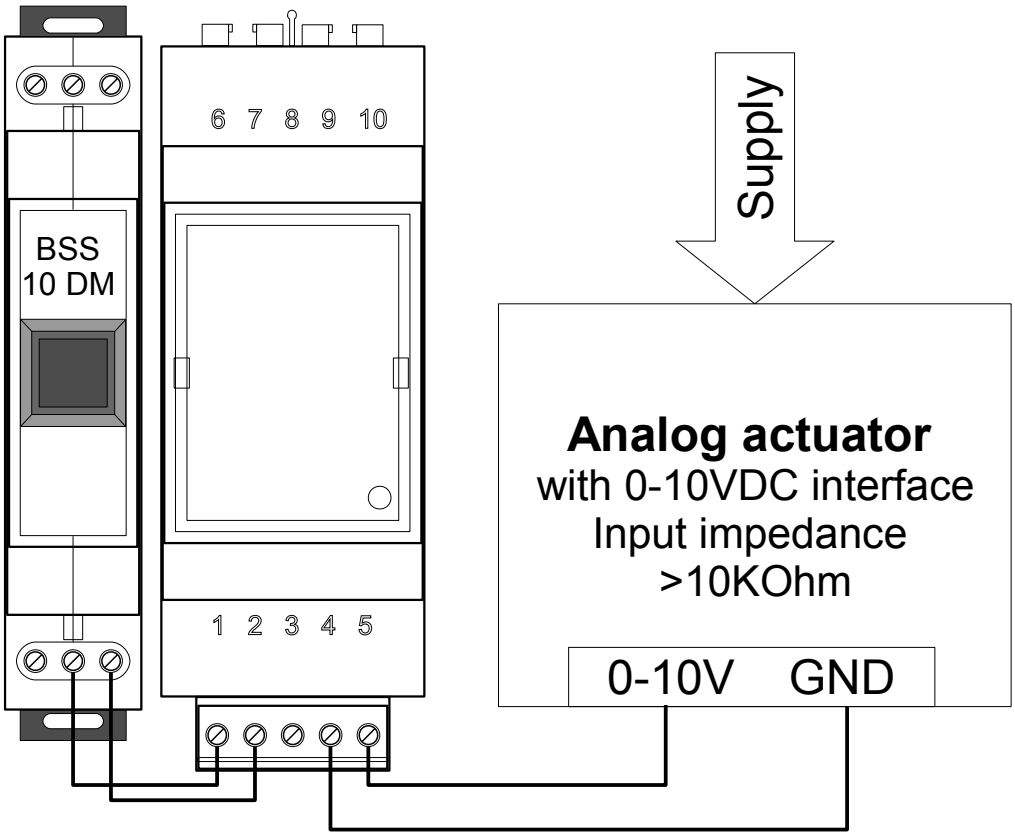
Connecting the input devices

Typical connection:



1 See “CIB-tech installation manual” for details.

Connection example with local, DIN-Rail mounted, push button :



NOTE: If two CDM 2030 D are connected to a double push button, always the terminal block contact 1 of each CDM 2030 D shall be connected together (to the common contact of the double push button), and never the terminal block contact 2.

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Technical Support:
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