



ENERGY MANAGEMENT SYSTEM

Step Controllers

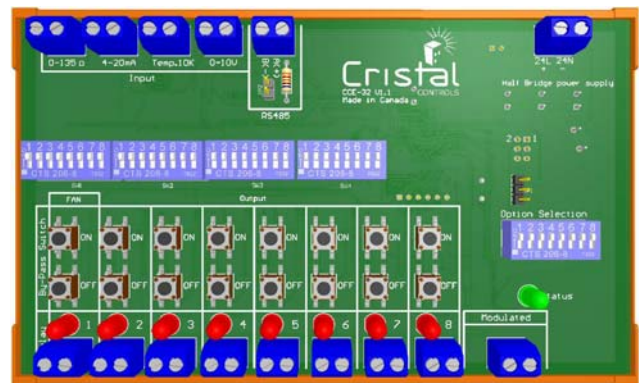
CCE-32



Description

The CCE-32 is an adjustable step controller that can control up to 32 fixed steps and one modulating step.

From the basics, the CCE-32 board offers 8 fixed steps and one modulating step. It is possible to connect up to three additional boards with the master board to obtain the 32 fixed steps. The system is autonomous and fully programmable directly on the board.



CCE-32 Step Controller

- 8 outputs (dry contact), expandable up to 32
- 1 modulating output
- Adjustable number of steps (2-32)
- RS-485 communication
- Bypass switch for every output (/ON/OFF)
- Different type of control (Cycle, sequence, LIFO, FIFO & Binary).
- 8 configurable parameters + adjustable delays
- 4 inputs control modes (10K sensor, 0-10 Vdc, 4-20 mA, 0-135 Ohms).
- Programmable directly on the board (dip-switch)
- Low power consumption Max 100mA with all steps ON
Per 8 Steps board.

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Applications

1. The number of fixed steps on the CCE-32 is very flexible, it can be configured anywhere between 2 and 32.
2. Four input control modes are available: 0-10 Vdc, 10K Temperature sensor, 4-20 mA, or 0-135 Ohms.
3. The temperature mode can be adjusted using various parameters. Options such as temperature setpoint, proportional band and offset are allowing to configure the CCE-32 as required using the Rs 485 com port.
4. The RS-485 network offers the possibility to connect up to 4 boards together in order to reach the 32 steps.
5. The « ON » and « OFF » delays between each load are also adjustable.
6. The first On-Off step can be program to activate a Fan, On and Off delay are also adjustable.
7. A jumper Is use to assigned the master slave operation mode .
8. Two dip switches (SW1-SW2) are for steps numbering.
9. A DEL is use to show each steps status
10. A DEL show the modulating step status.
11. Dip Switch (SW3) is to set up the ON –OFF of each steps. (SW4) is for the fan delay.
12. Available operating mode are: PI, LIFO, FIFO, Binary, By-Pass, Sequential and Cycle refer to the operating manual for adjustments.

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Technical specifications

Dimensions

- Enclosure 35 mm Entrelec Din Rail
- 4,0 " x 6,5"

Supply

- 24 Vac
- Consumption : less than 100mA,

Inputs

- Outdoor/Remote temperature sensor
(10K @ 25 °C, Temperature curve #1 from Dale, #12 from Mamac, #2 from Bapi, #2 from Greystone)
Operating range : -40 °C to 100 °C, resolution of 1°C
- Voltage 0 – 10Vdc
- 4-20mA
- 0-135 Ohms

Outputs

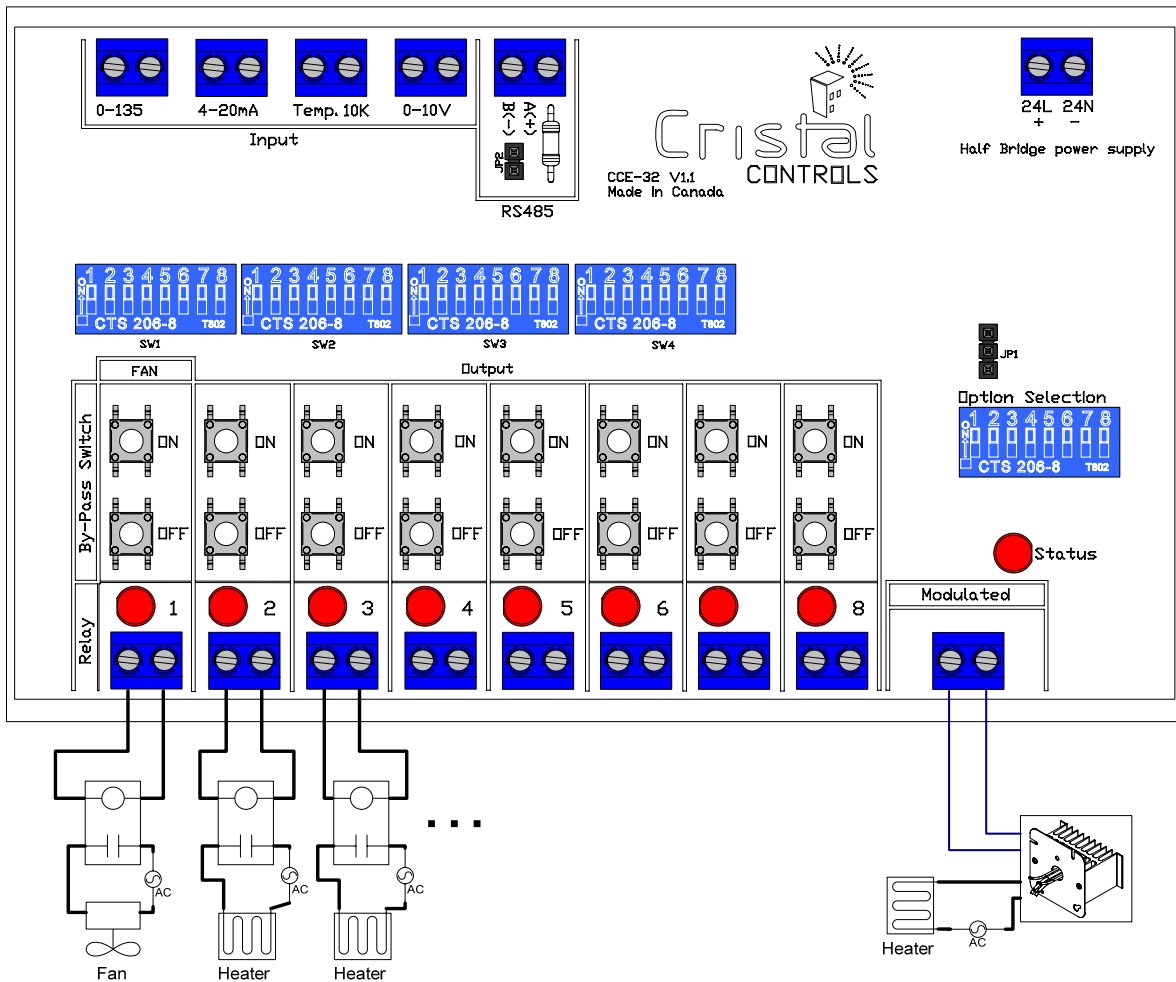
- 8 x 1A @ 24 Vac, dry contact type
- 1 x modulating output

Technical informations at :

http://cristalcontrols.com/produits_controlle_controlleur.html

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CCE-32 8 steps Typical connections

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