

Programmable control unit
Clear language text
Modbus/LON/Backnet
communication protocols



pCO₃ control unit

Carel pCO₃ is a programmable controller used on CIATRONIC precision air-handling units.
CIAT offers the software needed to adapt its programs to specific customer requirements.

- a hot water coil or 1 to 2 electrical heating stages.
- a humidifier,
- dehumidification.
- condenser fan.

DISPLAY INTERFACE

The following information is displayed in clear print on the pCO₃ screen:

- ambient and return air temperature and humidity,
- faults,
- clock and external contact status,
- unit component status.

The following information are displayed by leds on the pCO₃ interface:

- power on,
- fault appearance,
- operational unit.

The pCO₃ interface keys:

- start or stop the unit,
- acknowledge faults,
- adjust set-points and unit parameters.

OPERATION CONTROL

The pCO₃ controls the following functions:

- monitoring of temperature and relative humidity,
- energy savings using free-cooling or compensation,
- fan on/off or variable rotation speed control,
- one to two compressors or one chilled water bank,

FAULT MANAGEMENT

The pCO₃ handles the following faults:

- temperature sensor, relative humidity, pressure,
- high and low pressure in two cooling circuits,
- filter fouling,
- air flow rate and thermal flow on discharge fan,
- electric heater element, humidifier,
- high ambient or discharge air temperatures and relative humidity,
- supply air fan, discharge fan counter limits, compressor, filter.

ROTATION OF UNITS

When used with an external connection, the pCO₃ can manage the automatic rotation of AHU cabinets.

CONNECTION TO BMSs

The pCO₃ features a specific board for Modbus/Jbus/LON/Backnet communications.