

RTC206



AIR CONDITIONING CONTROL SYSTEM



Experimental capabilities

- Study of an air conditioning installation
- Installation of a regulator
- Research and identification of components
- Wiring of inputs / outputs
- Adjustment
- Simulation of temperature inputs
- Visualization of the actions of the regulator
- Optimization of the settings

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Dans le cadre de l'amélioration permanente de nos produits, ce descriptif technique est susceptible d'être modifié sans préavis
As part of the continuous improvement of our products, this technical specification may be modified without previous notifying

Operating principle

Autonomous bench for the study of programming an air handling unit by simulation the inputs and visualization of the outputs on color synoptic representing a full installation.

Bench can be connected to an air handling unit (Ref. CRA 546) allowing to study the regulation on a real machine.

The robust design of this device makes it suitable for use in schools.

The equipment is set up on an Anodized aluminium frame on casters wheels. This gives it great strength and a flexibility of integration into your premises.

The manufacture of this equipment complies with the European standard for machinery manufacturing.

This equipment can be used alone or with other compatible equipment from our range (see last section of this document).

Technical details

Regulator

- Type Sauter with integrated web server
- Temperature control and simultaneous relative humidity
- Of the digital type
- Inputs and outputs carried over to safe type banana sockets \varnothing 4 mm

- Synoptic

- Color representing a an air handling installation of temperature - relative humidity
- The temperatures and relative humidities can be simulated by a potentiometer
- The outputs 0 – 10 V and T.O.R. are displayed on digital indicators and LED on the synoptic.

- Electrical box

- Head protection by differential circuit breaker 30mA
- Control and low voltage signaling (24 Vac)
- 2 ports RJ45 for connecting a PC (or) connection on a network, 2 USB ports to connect a keyboard, mouse, USB stick 1 video output and 230V socket

Programming

The PLC allows a gradual evolution thanks to its 8 practical works:

- Practical work 1 to 4 control on the temperature, starting with the heating battery only, and then only for the cooling battery then integrate into a third Practical work both batteries (hot and cold). The fourth Practical work adds the mixture of air register.
- In TP5 to 7 we pass over a control temperature and relative humidity.
- The TP8 allows to work on the depression or a premises overpressure by varying the speed of the air blowing fan

	Temperature control			Humidity control	
	Air mixture register	Heating battery	Three-way valve chilled water group	humidifier	Three-way valve chilled water group
TP1		*			
TP2			*		
TP3		*	*		
TP4	*	*	*		
TP5		*	*	*	
TP6	*	*	*	*	
TP7	*	*	*	*	*

Summary of different achievable practical works

You can work on two modes of operation:

- Either on a temperature setpoint and blast air humidity
- On a setpoint temperature and return air humidity

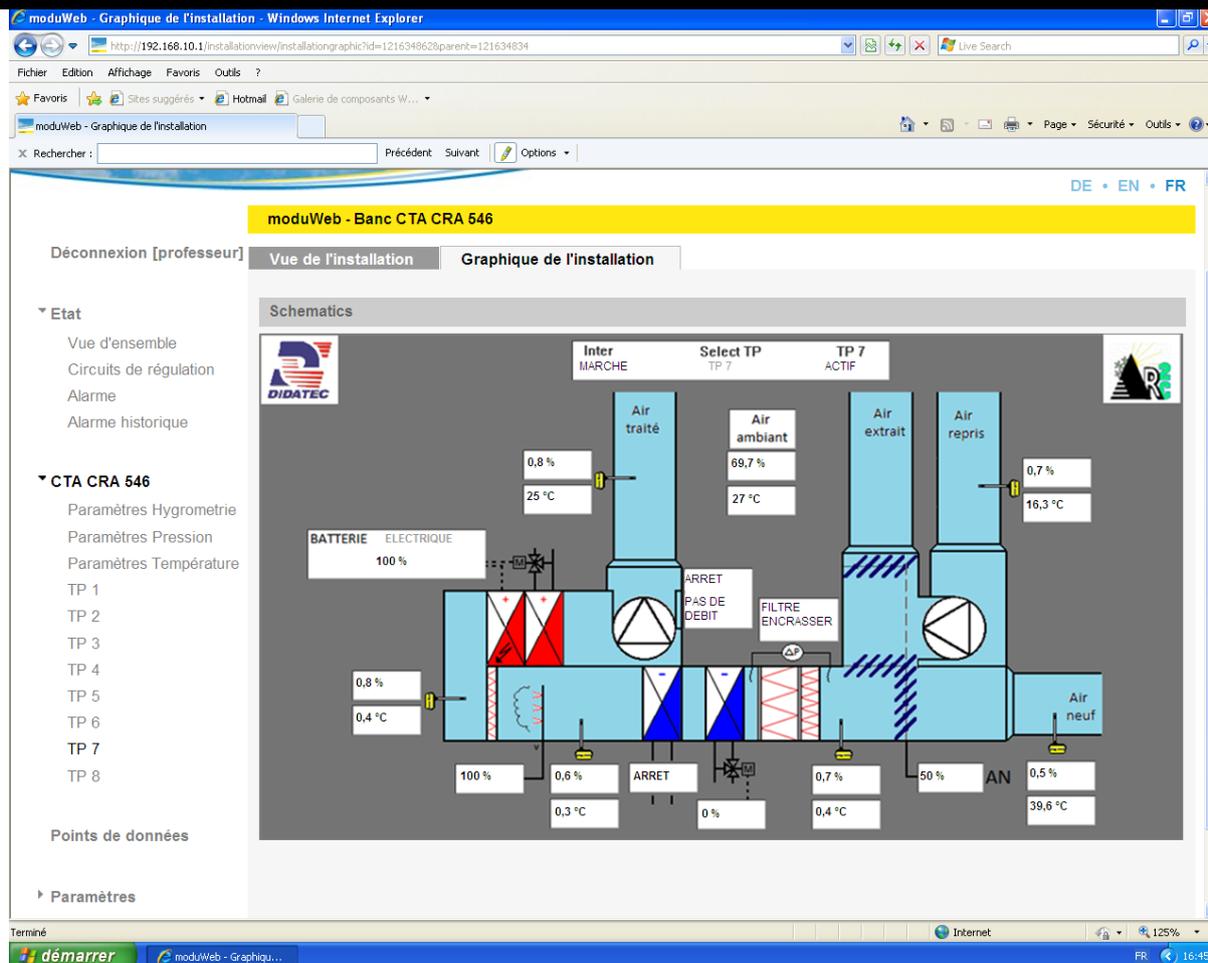


Diagram of the plant in the PLC

Services required

- Dimensions: (LxWxH mm): 1800 x 800 x 1850
- weight (Kg): 70

Note : if the equipment installation is operated by our staff, all supplies and exhaust connections required must stand at less than 2m from the machine

Documentation

- User's manual
- Pedagogical manual
- Technical documentation of the components
- Lab exercises
- Certificate of conformity CE