CLEVER
ADVANCED CONTROL

USER FRIENDLY

INTELLIGENT

ENERGY **SAVING**

POWERFUL

INTELLIGENT REGULATION
for Ventilation Technology

compatible with:

BMS PC

multilanguage

airtècnics
Air Curtains Fans Ventilation Actuators

AIRTECHNIC
www.airtechnic.gr
Air-Conditioning & Ventilation Components & Systems
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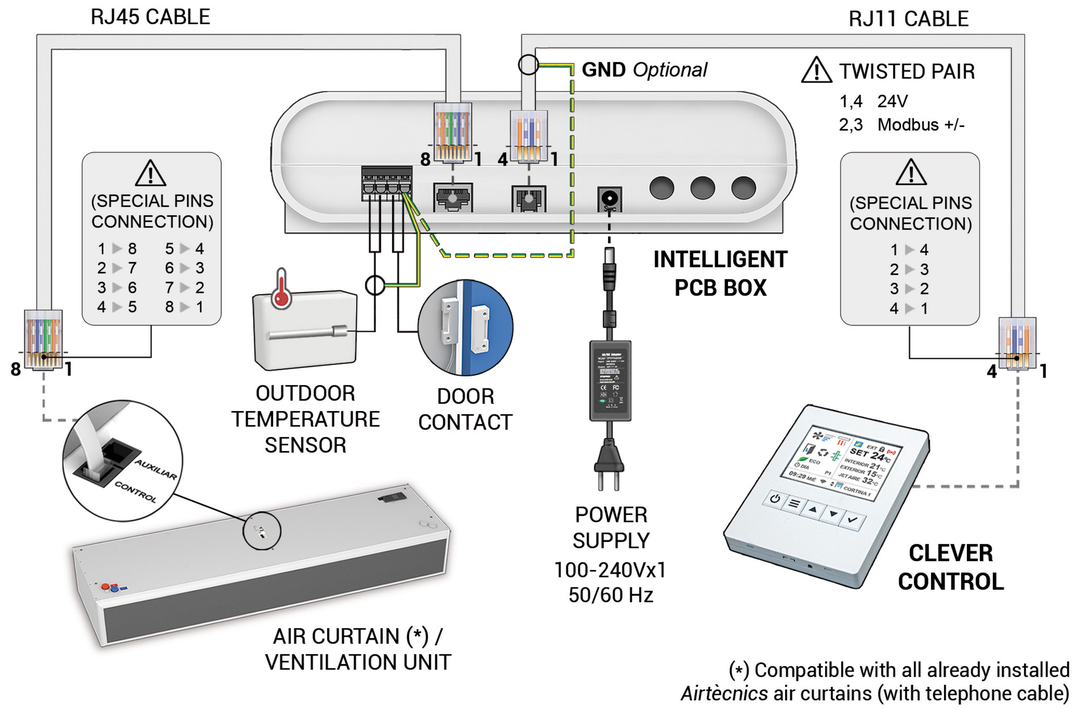
Τηλ: 211 - 70.55.500 & 210 - 21.30.051, Fax: 210 - 22.23.283

TECHNICAL FEATURES



(*) Compatible with all already installed *Airtècnics* air curtains (with telephone cable)

CLEVER KIT INCLUDES:

Clever Control
- *Color TFT screen 2.8 inch*
- *114 (h) x 85 (w) x 14 (d) mm*
- *Prepared for flush-mount installation*

Intelligent PCB Box
- *Electronic PCB Regulation*
- *Varnish Protection*
- *218 (w) x 140 (h) x 64 (d) mm*

PCB Power Supply
- *Input: 100-240Vx1 50/60Hz (AC)*
- *Output: 24V 2A (DC)*
- *EU 2 pins / BS 3 pins plugs*

RJ11 + RJ45 Cables
- *Easy Plug & Play installation*
- *RJ11 (4 Pins), 7m length*
- *RJ45 (8 Pins), 3m length*

Outdoor Temperature Sensor
- *Real-time temperature values*
- *IP65 Protection*

Door Contact
- *Monitoring Door Status*
- *Magnetic contact*

Advanced functions:

- Intelligent proactive regulation
- Manual / Automatic Functioning
- Energy saving modes: Eco, Medium and Comfort
- Different programs depending on installed temperature sensors
- Lots of functions to fulfil the client needs
- Fixed / Flexible door delay (progressive / adaptive)
- Calendar (Timer ON day/ON night/OFF)
- Alarms: general, filter, anti freezing, overheating, fans overheating, airflow, fire, external, heating locked, etc.
- Day / Night Temperatures
- Multi-Equipment management
- Multilanguage
- User / Basic / Advanced configurations
- Control lock option
- 3 Temperature sensors: inside, outside and air jet
- Unheated, electrical or water heated, heat pump (also combined)
- Modulating valve for water heated (includes 24V power supply)
- AC and EC fans

External communication:

- 2 independent Modbus RTU - BMS
- Configurable IN/OUT Digital/Analogical - BMS
- Modbus TCP Ethernet - BMS (optional)
- PC program (RS485)
- WiFi / Bluetooth (optional)
- Android application
- External monitoring (IP)

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ErP ready EC TECHNOLOGY

Total Ultimate Control for air curtains management

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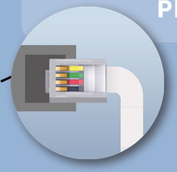
INTELLIGENT REGULATION

The future is here with the new generation *Clever* control.
Maximum control, maximum energy saving. *Clever* automatically adapts the functioning of the air curtain to the entrance conditions in order to keep the comfort saving energy.

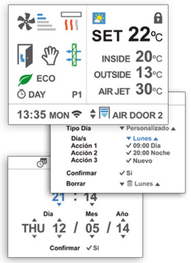
SIMPLE INSTALLATION
Plug & Play



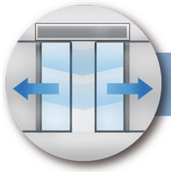
Factory adjusted control to just switch on and run

Depending on door state, how often the door is open/closed, internal/outside temperature or discharge temperature, Clever optimizes the ventilation and heating to make an efficient barrier for an optimal climate separation.
Manual or automatic functioning with many different programs depending on heating type (water, electrical, heat pump or unheated) and installed temperature sensors. Lots of extra functions to fulfill all client needs.

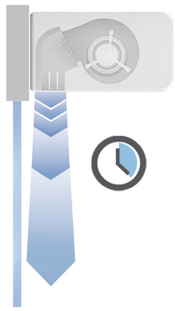
USER-FRIENDLY



Multilanguage and easy icons for fully understanding.
Main state screen indicates of the most important settings including: Ventilation speed, heating, temperatures, door state, working mode and program, filter state, day/hour, timer, etc.
Different menu configurations depending on who is managing the equipment: Simplyfied ***"User"*** mode, ***"Screen"*** to configure the TFT, ***"Basic"*** with main parameters and ***"Advanced"*** for professionals.



ADAPTIVE DOOR DELAY



When the door closes, the air curtain remains working at door open conditions for certain time to be ready if it opens again.The power of the unit during this delay time is divided into two strength stages, where the first is stronger than the second one in order to save energy.

There are two types: ***"Fixed"*** where you can select the duration of the delay, or ***"Flexible"*** which adapts automatically the time depending on how often the door is open.

FULLY PROGRAMMABLE

In Advanced configuration mode, user can set the minimum/maximum of many parameters, like ventilation speed or heating when door is open/closed, set the temperatures for day/night and air outlet, the door delay, etc.

TIMER / CALENDAR

Once programmed, the air curtain starts and turns off according to the client needs.
Calendar function to turn ON/OFF automatically the unit depending on each different day of the week or predefined groups of days.User can select between Day or Night modes with 2 different Set temperatures in order to save energy.

FILTER ALARM

Indicates when filter needs replacing/cleaning.
Clever offers 2 options: By ***"Timer"***of functioning hours or by ***"Pressure Sensor"*** switch.
Filter sign will change color depending on the state from green to orange and finally red combined with a flashing message on the screen.

MULTI-EQUIPMENT

Clever PCB can manage different types of units: Air curtains, fan heater, AHU, etc.
Once programmed, it can work by itself without any TFT control. *Clever* controller display shows the functioning and is used to program each device.
One TFT can manage up to 255 different units, each one with its own program. The system detects and shows automatically how many units are connected.
End user can customize the name of each equipment.

ENERGY SAVING

Clever Control has 3 grades of comfort and energy efficiency which can be adjusted in all manual and automatic programs.***"Eco"*** mode uses the less energy possible without compromising too much the comfort, while ***"Comfort"*** spends more ventilation/heating to maintain or achieve quicker the Set temperature. As indicates, ***"Medium"*** is in between both modes.

ECO MODE — **MEDIUM** MODE — **COMFORT** MODE

BMS CONNECTION

Clever uses Modbus RTU protocol to communicate between the PCB and TFT control, so it can be connected directly to a Modbus RTU BMS system. Available Modbus Ethernet with extra module.

The Clever PCB has several digital IN/OUT and analogical IN/OUT (0-10V) to control/monitory directly the unit (ON/OFF, fan speed, heating, temperature set, alarms, etc...).

PC / ANDROID APP

Any Windows PC, Android or IOS device can manage the air curtain with the same functions as the *Clever* TFT control. If an IP is assigned, the unit can be externally fully controlled through internet.
Extra WiFi / Bluetooth module required for *Android*.

Windows