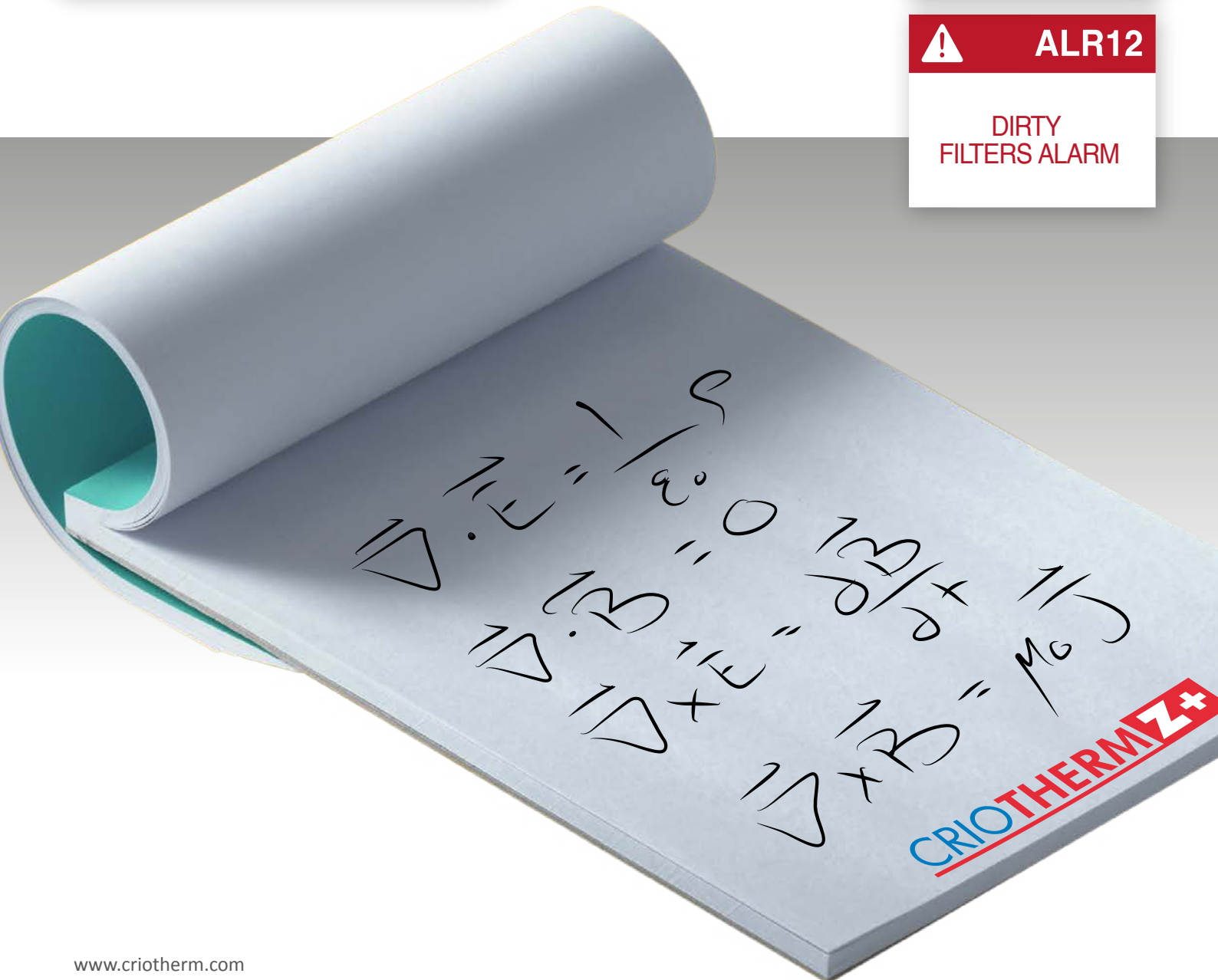
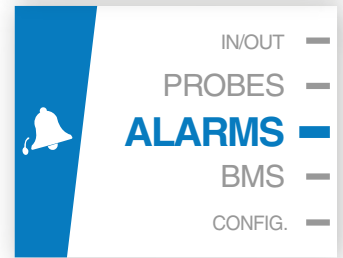
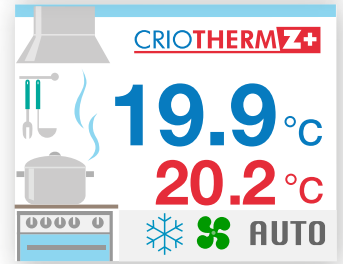
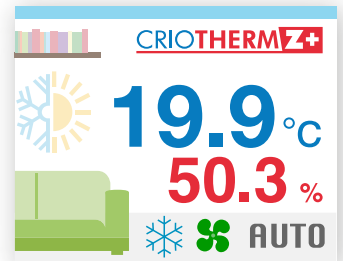


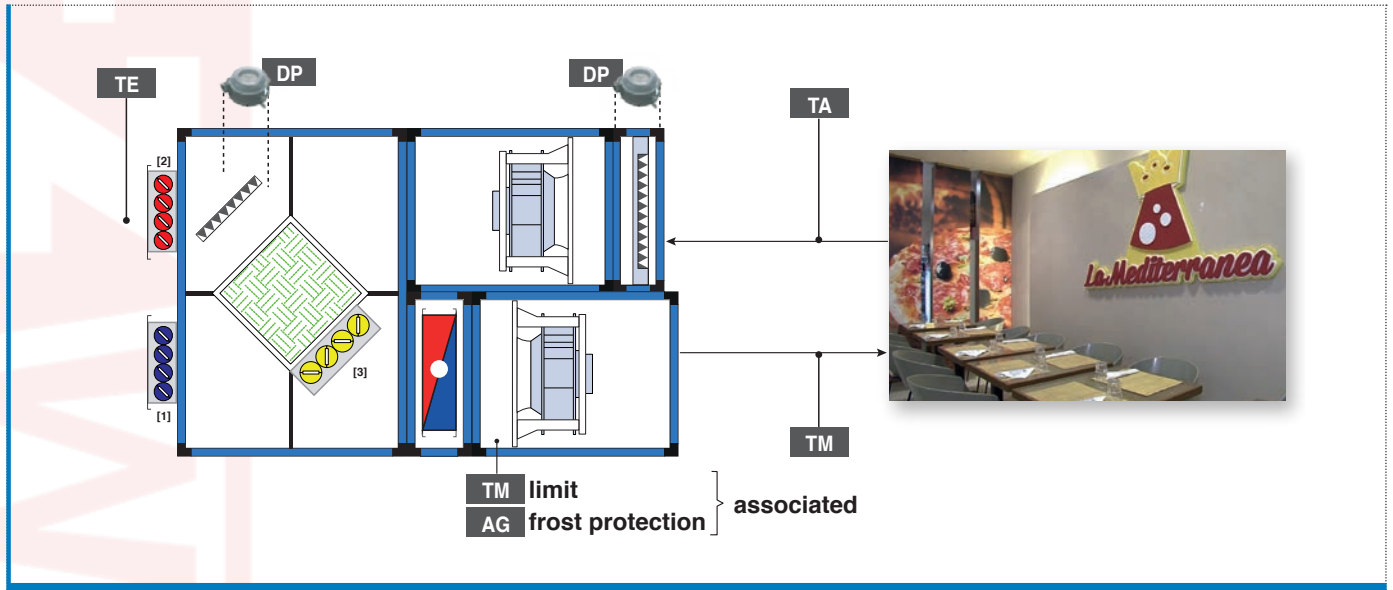
# COMPACT

## CONTROL SYSTEMS FOR AIR HANDLING EQUIPMENT

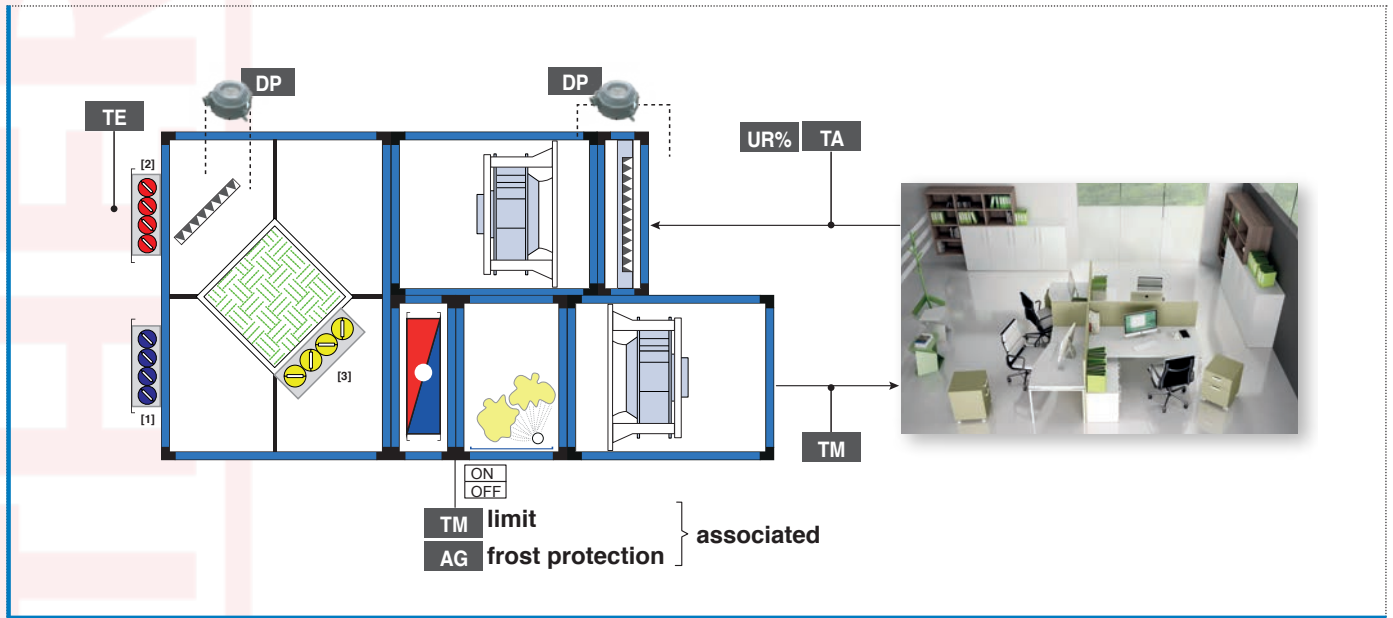


# HEAT RECOVERY UNIT

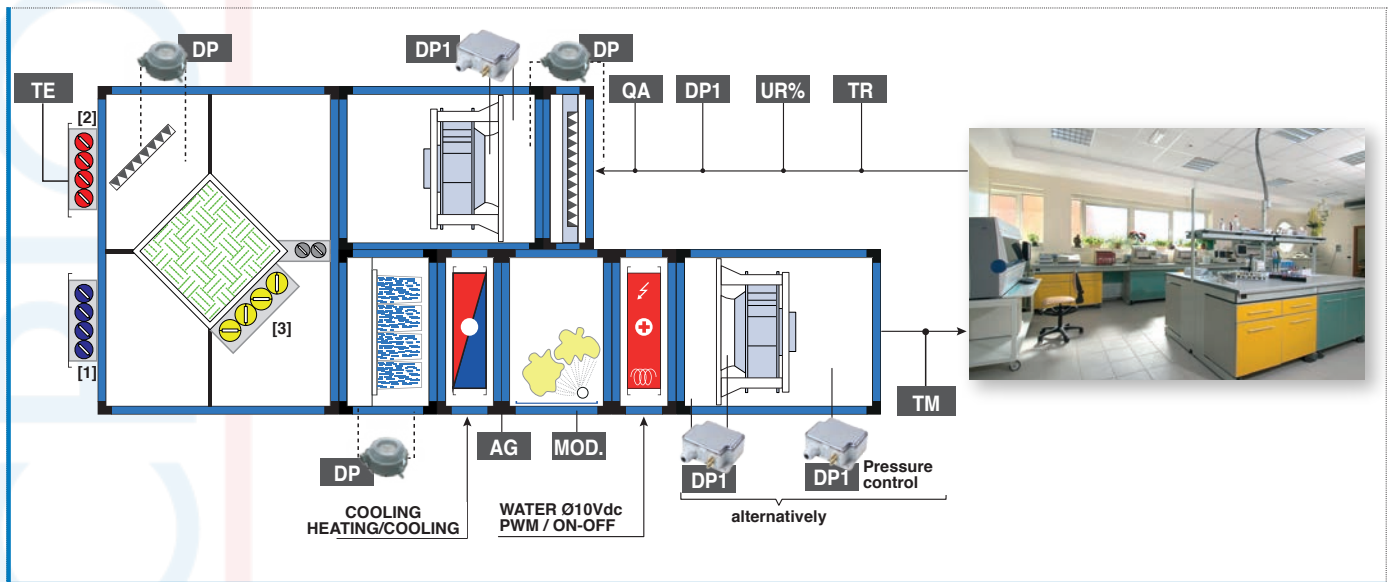
## MINIMUM CONFIGURATION



## CONFIGURATION WITH HUMIDIFICATION CONTROL

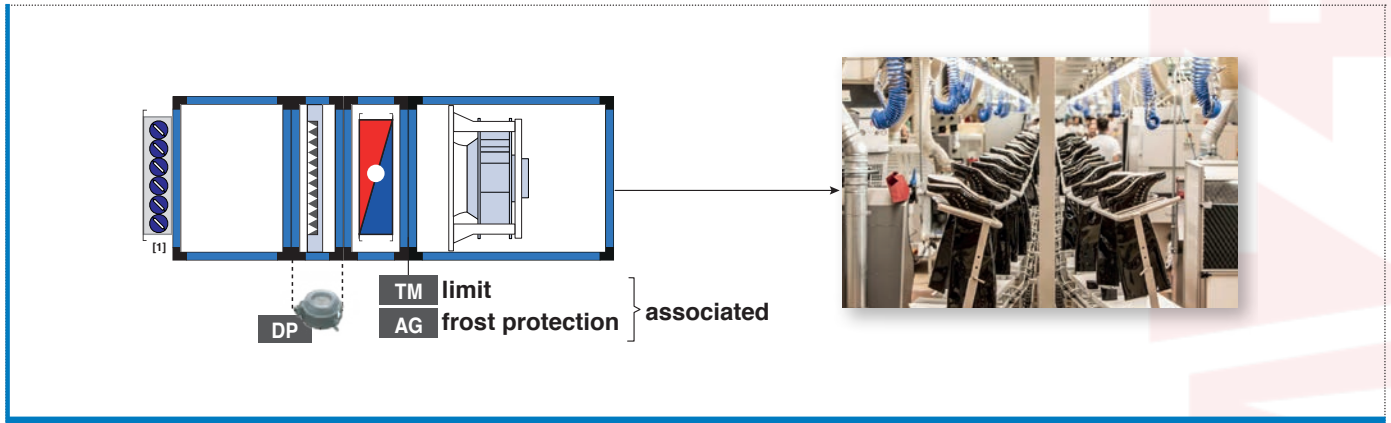


## MAXIMUM CONFIGURATION

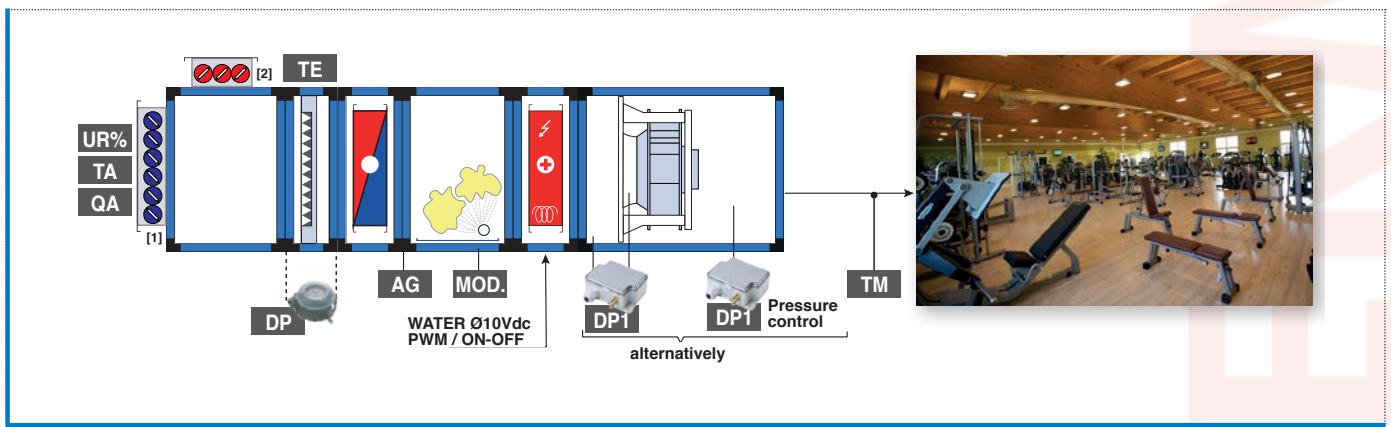


# HEATER-FAN GROUP

## HEATER-FAN MINIMUM CONFIGURATION



## HEATER-FAN MAXIMUM CONFIGURATION



### KEY

<b>AG</b>	Frost protection thermostat
<b>DP</b>	Differential pressure switch
<b>DP1</b>	Airflow control probe
<b>MOD.</b>	Modulating
<b>QA</b>	Air quality
<b>TA</b>	Room air thermostat

<b>TE</b>	Outside air temperature
<b>TM</b>	Supply air temperature
<b>TR</b>	Regeneration temperature
<b>UR%</b>	Relative humidity
<b>TM</b> <b>AG</b>	Room air thermostat+ Frost protection

## INTERFACE WITH BMS WITH MODBUS RTU PROTOCOL



### INTERACTIVE NABLA USER TERMINAL INSTALLED IN A RECESSED WALLBOX WITH 3 MODULES 503

- Graphic colour capacitive TFT display with resolution 160x128 RGB 1.8"
- Touch keyboard with 6 buttons
- Electrical supply from connecting bus to COMPACT+ control unit
- Protection grade IP55

#### PRINCIPAL CHARACTERISTICS OF NABLA:

- Installation ON/OFF buttons
- Button for change in ventilation mode
- Button for rapid access to SET-POINT menu
- UP/DOWN/ESC/ENTER buttons for navigation amongst the pages of the menus and for setting the parameters
- Alarm Led
- Screen displays with extended description of the operating parameters
- Screen-save functions
- Personalisation with company logo (on specific request and for minimum lots)
- Multi-language

#### GENERAL CHARACTERISTICS

Programmable multifunction microprocessor board with resident software already set-up.

#### HARDWARE CHARACTERISTICS

- Board with 8 bit microprocessor
- 16 KB flash memory
  - 1 KB Ram, 512 bytes Eprom, with real time clock
  - 230 V AC electrical supply, max. absorbed power 15 VA
  - 3 SELV clean contact digital inputs
  - 1 SELV clean contact safety input
  - 6 power relay outputs of 250V 16A on resistive equipment
  - 1 exchange relay output 250V 10A on resistive equipment
  - 3 analogical inputs for NTC 10K probes
  - 2 analogical outputs 0..10Vdc I<sub>max</sub> 5mA
  - 1 impulsive digital output 0..10Vdc I<sub>max</sub> 5mA,

#### WHICH CAN BE EQUIPPED WITH EXTERNAL LCD DISPLAY

- with 2 row 16 characters, time visualisation and programming of time periods,
- 4 key function
- 1 analogical input for NTC 10K probe
- Equipped as a standard with n° 1 Bus gate type RS485

#### CHARACTERISTICS OF THE COMPACT APPLICATION

- 9+1 level speed control
- PI action thermal control in room space
- Adjustable set-point +/- 3°C
- Anti-freeze protection device with automatic reset
- Clock for programming of start-up and shut-down of installation with up to 5 time
- Bands for each day of the week with 2 selectable set-points
- Pre-treatment set point which foresees control of air temperature and flowrate associable with any one of the available time bands.



#### KEYPAD WITH LCD DISPLAY WITH VISUALISATION OF THE STATUS OF THE INSTALLATION

- Installation activated
- Modification of set-point
- Intervention of external safety devices
- Intervention of anti-freeze protection
- Clogged filters
- Flow detection

#### It is Compliant with the harmonised standards:

- *Standard EN 60204-1 (CEI 44-5)*  
Safety of machinery Electrical equipment of machines Part. 1: General Rules
- *Standard EN 61439-1 (CEI 17-113)*  
Equipment assemblies for protection and manoeuvre for low voltage (LV control panels) Part 1: General Rules
- *Standard EN 61439-2 (CEI 17-114)*  
Equipment assemblies for protection and manoeuvre for low voltage (LV control panels) Part 2: Electric Power Panels

#### All the electronic devices employed are compliant with the European Union directives:

- *Directive 2014/35/EU Low Voltage (LV) Directive*  
Safety Requirements and Procedures for evaluating machine compliance
- *Directive 2014/30/EU, Electromagnetic Compatibility Directive*  
Protection Requirements relating to Electromagnetic Compatibility and procedures for evaluating compliance

Criotherm is constantly working on the continual perfection of all her products: the technical and dimensional characteristics, the technical data, the equipment items and the accessories can therefore be subject to change.



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info@criotherm.com - www.criotherm.com



Analysis and drafting of the specifications, system and electrical design, development of the software.

#### Design



Electrical control panels, field equipment, humidifiers, electronics and software which can be personalised based upon the true requirements, wiring performed aboard the appliance.

#### Supply



Autonomous commissioning or customer-support commissioning and subsequent training of the personnel responsible for the plant.

#### Start-up



After-sales service over the telephone and directly through service centres present right across the country in Italy.

#### Support