CONTROL EQUIPMENT

Overview of the control options
provided by Mark

For more information, downloads
and videos, visit the control equip-
ment page on our website

Mark takes care of it for you!

Devices can be regulated and controlled in various ways. Each individual will have his own ideas and requirements. Mark has thus developed a range of options from standard to project-specific.

Our range includes various types of thermostats, speed controllers, packaged digital controllers and full custom made power and control panels, enabling the user to control a single unit or multiple units.

Mark has its own electrical engineering and manufacturing department and is therefore able to offer a solution for any control requirement. Our engineers would be pleased to advise you. Simply contact them to discuss the options within our range of control equipment.

Our assortment includes:

- Full range of thermostats and sensors
- Time controls
- Digital time and temperature controllers
- Speed controllers including variable speed drives (VSD)
- Custom-made power and control panels

New in our range are the thermostats and controllers controlled via Internet (web-based). This allows remote connection with the thermostat via a web browser or mobile app. For example, you can operate or change the thermostat anywhere in the world with a telephone, tablet or laptop / PC.

230V Room thermostat

Order code: 0629013

A room thermostat for 1 to 1 control of a device based on room temperature.

Specifications:
– Required temperature adjustable from 10...30°C.
– Switch contact voltage free max. 4A / 230V.

Can be used for:
– G-TYPE
– Tanner MDA (230V)
– Tanner MDE
– Tanner MDC (230V)
– MDV Blue AC
– Ecofan P
– Fohn
– 5-position controller 230V
– High/low/off controller

Clock thermostat RAMSES 811 top3

Order code: 0629039

A digital clock thermostat for 1 to 1 control of a device based on room temperature.

Specifications:
– Language can be set to English, German, Dutch, French, Italian or Spanish.
– NO contact, voltage free max. 10A(2)/250V~
– Temperature measurement range 0...50°C increments of 0.1°C.
– Temperature setting range 2...30°C in stages from 0.2°C.
– 3 control programmes, freely programmable with 40 memory points.
– Comfort, Eco/Reduction, Frost protection
– Automatic switching between summer/winter.
– Protection class IP40 in accordance with EN 60529 -1.
– 2x alkaline batteries, 1.5V, type AA.
– Power back up when battery replaced 10 minutes.
– Holiday program with a separate setpoint
– Setting various parameters using Ramses top 3 Application Communication via Bluetooth

Can be used for:
– Tanner MDA
– Tanner MDE
– Tanner MBA
– 5-position controller 230V
– High/low/off controller

Water-proof room thermostat

Order code: 0629004

Water resistant (IP65) room thermostat with adjustable differential. Measures the temperature using a sensor filled with liquid connected to the thermostat with a capillary.

Specifications:
– Bulb sensor filled with liquid.
– Adjustment range from -5...+28°C.
– Differential adjustable from 2...8K.
– Material protection class and resistant to splashing in accordance with IP65.
– Switching power 230V~, 15(8)A.

Can be used for:
– Tanner MDE
– Tanner MDA
– Tanner MDC
– Tanner MBA
– 5-position controller 230V
– High/low/off controller

Zone control infra

WEB-BASED

Order code: 3003795

Digital temperature control suitable to on/off, high/low or modulated control multiple Infra's based on room temperature. With the ability for area control and PIN security to modify settings.

Specifications:
– Delivery: Control panel with external display
– Size ext. display (WxHxD): 160x98x43mm
– Languages: English, French, German and Dutch
– Protection class: IP20
– Mounting of display: built-in / wall installation
– Number of areas: 3
– Number of Infra's per area: 6
– Temperature range: 2 / 40°C per 0,5°C.
– Operating options: Auto, continuous day, continuous night or continuous off
– Day-/night temperature monitoring with reading of the actual room temperature on the display
– Automatic switching between summer/winter time.
– Control: on/off, high/low or modulating
– High/low control: Auto 1, 2 or 3K
– Time switch with week program (7 switch blocks)
– Overtime timer: 0-180 min.
– Signaling of burner malfunction.
– Reset option to release a burner malfunction per area.
– PIN security to modify for example switching times and temperatures.
– Temperature sensor: PT1000 (black bulb) to order seperately (required per area)
– Modbus TCP/IP
– Power: 230Vac / 50Hz
– Embedded webserver

Can be used for:
– Infra on/off and high/low model.
– Infra Mono on/off and high/low model.
– Infra HT

Accessories:
– External black bulb sensor
  Order code: 0629081 or 0629082

Mark PinTherm Connect

WEB-BASED

Order code: 0629108

The PinTherm Connect is a digital week clock room thermostat. The controller is equipped with an on/off contact and a 0-10VDC output. Both signals are reversible, so the control is suitable for heating and cooling. The settings of the thermostat can be read and/or modified with Modbus or Ethernet. The thermostat can be connected to the BMS (building management system).

Specifications:
– Power PinTherm Connect: 230Vac / 50Hz
– Own consumption: < 9W
– Clock: 24 hour clock with automatic summer/winter time switching
– Switching programs: 3 switching programs a day
– Switching differential: 0,1 - 3K
– Dimensions: 166 x 160 x 106mm (bxwxh)
– Weight: 880 grams
– Protection class: IP54
– Installation environment:
  Transport/storage: -20°C until +70°C
  Operational: -10°C until +60°C
  Relative air humidity: 0-90% not condensating
– Switch contact(s):
  Heating: 230Vac/16A (4A)
  Others: 230Vac/10A (2,5A)
– Temperature setting: 0 until 39°C per 1°C adjustable
– Overtime timer: adjustable 1, 2 or 3 hours (060, 120, 180)
– Calibration: adjustable from -3.5°C until +3.5°C
– Heating/cooling:
  Reversible contact for heating or cooling
  0-10 VDC output for heating or cooling
– Languages: NL/EN/DE/FR/PL/RO/LT
– Fuse: 6A

Can be used for:
– G-Type
– Tanner MDA / MDC / MBA
– LDA Swirl
– Ecofan W
– MDV Blue
– Fohn

Accessories:
– External room temperature sensor
  Order code: 0629086

Mark PinTherm Infra Connect

WEB-BASED

Order code: 0629109

The PinTherm Infra Connect is a digital room thermostat to switch an Infra on/off or control high/low or modulating based on room temperature. The settings of the thermostat can be read and/or modified with Modbus or Ethernet. The thermostat can be connected to the BMS (building management system).

Specifications:
– Power PinTherm Infra Connect : 230Vac / 50Hz
– Own consumption: < 9W
– Clock : 24 hour clock with automatic summer/winter time switching
– Switching programs : 3 switching programs a day
– Switching differential: 1°C
– Dimensions: 166 x 160 x 106mm (bxwxh)
– Weight: 880 grams
– Protection class: IP-54
– Installation environment :
  Transport/storage: -20°C until +70°C
  Operational: -10°C until +60°C
  Relative air humidity: 0-90% not condensating
– Switch contact(s):
  Heating: 230Vac/16A (4A)
  Others: 230Vac/10A (2,5A)
– Temperature setting : 0 until 39°C per 1°C adjustable
– Overtime timer : adjustable 1, 2 or 3 hours (060, 120, 180)
– Calibration : adjustable from -3.5°C until +3.5°C
– High/low switching: Temperature 1K, 2K, 3K or manual. PinTherm Infra Connect always starts 20 min on high a heat demand.
– Languages : NL/EN/DE/FR/PL/RO/LT
– Fuse: 6A

Can be used for:
– Infra on/off and high/low model.
– Infra Mono on/off and high/low model.
– Infra HT
– Infra Line
– Tanner MDE

Accessories:
– External black bulb sensor
  Order code: 0629087
– External room temperature sensor
  Order code: 0629086

Mark PinTherm Infra HE Connect

WEB-BASED

Order code: 3003796

The PinTherm Infra HE Connect is a digital temperature controller suitable for modulating control of one or more Infra HEs based on the room temperature. With the possibility of PIN code protection for changing the settings.

Specifications:
– Power supply: 230Vac/50Hz
– Dimensions: 376 x 300 x 120mm (lxbxh)
– Protection class: IP54
– Installation: surface / wall mounting
– Maximum number of Infra HEs: 8
– Temperature setting: 2 until 40°C per 0,5°C adjustable
– Operating mode selection: Automatic, continuous day, continuous night or continuous off
– Day/night temperature monitoring with reading of the current room temperature on the display
– Automatic summer/winter time switching
– Control: modulating
– Time switch with weekly program (7 switching blocks)
– Overtime timer: 0-180 min
– Burner fault indication
– Reset option for unlocking a burner fault
– Pin code protection to be able to change switching times and temperatures, among other things
– Languages: EN/FR/DE/NL
– Fuse: 10A
– Modbus TCP/IP
– Built-in web server

Can be used for:
– Infra HE

Accessories:
– External black bulb sensor
  Order code: 0629002

Optitherm+

Order code: 0629185

The OptiTherm+ is a digital clock thermostat with internal room sensor with which 1 or more air heaters (type GS+), up to a maximum of 8, can be controlled on the basis of the room temperature by means of a bus system.

Specifications:
– Push-button for switching the heating mode on and off.
– Push-button for switching the fan of the air heater(s) on and off.
– LED to indicate a malfunction along with notification on the display in the form of a failure code.
– Reset button to release a burner malfunction.
– An annual clock with 20 program blocks, clock program Mon-Fri, Tues-Fri, Sat-Son, daily or every day.
– Exceptional days, 20 program blocks, programmable by date, switching to daytime, eco or night-time temperature.
– 4 different operating modes (day, eco, night, frost).
– An overtime timer for switching to a different operating mode outside the switching times. Overtime timer freely adjustable from 15 min to 24 hours switching to daytime, eco or night-time temperature.
– Pin code protection to protect settings such as temperature, clock program, etc.
– Frost protection which automatically switches on the air heaters if the room temperature falls too far.

– Digital clock thermostat.
– Connection: bus system (2-wire).
– Dimensions: 129 x 129 x 20mm (lxwxh)
– Weight: 188 grams.
– Protection class: IP30.
– Ambient temperature: 0-40°C.
– Temperature setting: 0 to 40°C per 0.5°C can be set
– Time display: 24 hours
– Summer/winter: adjustable automatic/off
– Languages can be set to Dutch, English, German, French, Polish or Romanian
– External sensor: option of measuring the temperature per unit or on the basis of an average value.

Can be used for:
– GS+
– G(C)+
– GSX

Accessories:
– External room sensor to be connected to the air heater. Order code 0629194
– Data cable 12,5 meter (3000600), 25 meter (3000601), 100 meter (3000602)

Mark PinTherm Mistral

Order code: 0629110

The PinTherm Mistral is a digital week clock room thermostat. The controller is suitable for controlling the Mark Mistral MDX, but also an air/water heat pump in combination with the Mark Tanner MDA+ air heater. The controller is equipped with an on/off contact and a 0-10 VDC output. The thermostat settings can be read and/or changed using Modbus or Ethernet. The thermostat can be linked to the BMS (building management system).

Specifications:
– Power: 230Vac / 50Hz
– Clock: 24 hour clock with automatic summer/winter time switching
– Switching programs: 3 switching programs a day
– Switching differential: 0,1 - 3K
– Dimensions: 166 x 160 x 106mm (lxwxh)
– Weight: 880 grams
– Protection class: IP54
– Installation environment:
  Operational: -10°C until +60°C
  Relative air humidity: 0-90% not condensating
– Switch contact(s):
  Heating: 230Vac
  Others: 230Vac
– Temperature setting: 0 until 39°C per 1°C adjustable
– Overtime timer: adjustable 1, 2 or 3 hours (060, 120, 180)
– Calibration: adjustable from -3.5°C until +3.5°C
– Heating/cooling:
  Automatic changeover for heating or cooling.
  0-10 VDC output for heating or cooling
– Languages: NL/EN/DE/FR/PL/RO/LT
– Fuse: 6A

Can be used for:
– Mistral MDX
– Tanner MDA+

Accessories:
– External room temperature sensor
  Order code: 0629086

CHRONOTHERM TOUCH (Modulating thermostat)

Order code: 0629077

A programmable, modulating clock thermostat for modulating boilers, that control according to the OpenTherm®-communication protocol, as Mark EcoFlex, PowerFlex, MegaFlex and MaxiFlex. Operation is extremely easy through the touch screen.

Specifications:
– Display: large touch screen with backlight.
– The touch screen display can be locked in whole or in part.
– Cleaning ability for the touch screen without changing the settings.
– Clock program: week program.
– Adjustable up to 6 periods per day.
– Possibility to program multiple days simultaneously.
– Possibility to program a day off, holiday period or shiftwork.
– Overtime timer easy to program.
– Automatic switching between summer/winter.
– Temperature range -4,5...+32 ̊C
– Control: modulating. Self-learning and optimizing.
– Weather-dependant control possible.
– Fitted with a permanent memory which stores all saved settings. Only temporary settings are not memorized.
– No battery power.

Can be used for:
– EcoFlex
– PowerFlex
– MegaFlex
– MaxiFlex

Destratificatieregeling RJ402 incl. PinTherm Connect*

Order code: 3002660

Automatic energy-saving system for continuous control of ECOFAN ceiling fans depending on the temperature difference. Incl. two room temperature sensors, 1. room sensor in the lounge area, 2. room sensor in the ceiling area.

Specifications:
– Power: 230Vac / 50Hz
– Own consumption: < 0,5W
– Permissible ambient temperature: 0° - 50°C
– Temperature range: 0° - 50°C
– Hysteresis: 2° - 35°C
– Output: Switch contact
– Maximum permissible continuous current: 5A AC1
– Temperature sensor: 10K S

Can be used for:
– Ecofan W (With EC and AC motor)
– Ecofan P

Room thermostat with speed control

Order code: 5997350

Programmable room thermostat for speed control of appliances with an EC motor.

Specifications:
– Power supply: 230V/50Hz, 230V/60Hz or 24V/60Hz
– Protection class: IP30.
– Room temperature adjustable from 0...40°C
– Transport / storage temperature: -10...+50°C
– Humidity limits: 20...80% RH (not condensing)
– Dimensions: 132 x 87 x 23,6 mm (wxhxd)
– Weight: 265 gram
– Plastic housing in RAL 9003
– Wall mounting

Can be used for:
– Tanner CLA
– Fan Coil

Surface contact thermostat

Order code: 0629180

Thermostat to start a water-supplied air heater, for example, when the water is at the required temperature.

Specifications:
– Temperature adjustable from 20...90°C per 5°C.
– Protection class IP40.
– Voltage free exchange contact.
– Switching power 24...230V~, 16(4)A, min. 150mA at 24V~.
– Ambient temperature -35...+65˚C.
– Maximum sensor temperature 110˚C.
– Dimensions 38 x 48 x 103mm.
– Process connection using the 220mm metal butterfly clips supplied.

Can be used for:
– Tanner MDA
– Tanner MDC
– Tanner MBA
– 5-position controller 230V
– High/low/off controller

Frost protection thermostat

Order code: 0629125

Thermostat to protect against the danger of frost. Equipped with a bulb sensor which is active over the entire length.

Specifications:
– Adjustment range from -10...+12°C.
– Switch differential 1K.
– Protection class IP40.
– Voltage free exchange contact.
– Switching power 24...230V~, 15(8)A, min. 150mA at 24V~.
– Ambient temperature -9...+55°C.
– Dimensions 105 x 112 x 55mm.
– Colour grey (RAL 7035).
– Copper capillary.
– Capillary filled with Solkane R134a.
– Capillary active across the entire length.
– Capillary length 1.8m.

Can be used for:
– Tanner MDA
– Tanner MDC
– 5-position controller 230V
– High/low/off controller

Digital time clock

Order code: 0633030

Digital time switch to switch installations on and off or to control temperature reductions for the night or over the weekend.

Specifications:
– Simple to use.
– 8 on/off cycles with 13 different day blocks, programmable by day or block of days.
– 4 different operating positions: manually on constantly, manually off constantly, adjustable countdown timer, automatic operation in accordance with timer switching programme.
– Integrated countdown timer.
– Suitable for wall installation or installation on DIN rail.
– Manual on/off.
– Rapid summer/winter time switching.
– Power reserve 72 hours.
– Dimensions 78.8 x 106 x 56mm.
– Protection degree IP20 in accordance with EN 60 529.
– Operating voltage AC 230V -15...10%, 50/60Hz, 3.0VA.
– Relay contact Q AC24...240V, DC 24V, max. 6(3)A.

OJ user interface with touch panel

Order code: 0631374

User friendly control panel for commissioning and setting the daily operation of the Mark Airstream. The control panel is very easy to use, thanks to the logical menu's, easy navigation and recognizable symbols.

Specifications:
– 3.5" color Touchscreen.
– Easy navigation through grafic interface.
– Connection and installation through Modbus.
– Mounting on the Airstream or wall is possible.
– QuickPlugTM installation.
– All system parameters are visible to each user.
– Only authorised users can change the system parameters. Access to the control system can be granted for 3 different levels:
  · User
  · Installer
  · Service
– Voltage24 V DC, ±15%
– Consumed current max 37,5 mA
– Modbus RS-485, 115 kBaud
– Modbus connection 2 x RJ12 6/6
– Max. cable length 50 m
  (in low EMC environment)
– Ambient temperature -10°C /+40°C
– Air humidity 0-95% (not condensing)
– Dimensions 80 x 121 x 42
– Modbus cable MPFK6S
– Density class IP21
– Weight 190 g

Can be used for:
– Airstream

CO2 sensor

Order code: 0629165 (muurmontage)

Sensor that detects CO_2 content in the air. The detection range of this CO_2 sensor is calibrated for standard applications such as monitoring of residential rooms or conference rooms.

Specifications:
– Power supply 24 V AC/DC.
– Several measurement ranges possible: 0...2000ppm, 0...5000 ppm, 0...10000ppm.
– Output signal 0...10V.
– Measuring accuracy: +/- 70ppm plus 5% of measured value.
– Pressure dependence: +/- 1,6% / kPa.
– Warm-up time: approximately 1 hour.
– Ambient temperature: 0...50°C
– Reaction time: approximately 1 minute.
– Electrical connection: 0,14 - 1,5 mm2.
– Plastic enclosure (RAL 9010).
– Dimensions 98 x 106 x 32 mm.

Can be used for:
– Airstream

5-position transformer regulator 230V	5-position transformer regulator 400V	High/low/off regulator 400V

Order code: 6A 0616186 - IP54

    6A 3003096 - IP54 (Ecofan W142)

    12A 0616188 - IP21

    12A 3003097 - IP21 (Ecofan W142)

    14A 0616189 - IP54

    14A 3003098 - IP54 (Ecofan W142)

Order code: 2A 0616162 - IP54

    4A 0616164 - IP21

    7A 0616166 - IP21

Order code: 10A 0616170

Regulator to regulate the speed of 1~230V voltage adjustable fan motors.

Regulator to regulate the speed of 3~400V voltage adjustable fan motors.

Regulator to manually switch 3~400V fan motors in Y/Δ to high/low.

Specifications:

– Option to connect several fans with the maximum connection current.
– Protection class IP54/IP21.
– Selector to switch the fan to 6 positions, including off.
– Green operating lamp.
– Option to connect a room and/or construction thermostat.
– Option to control an air valve for example via a co-switching contact (max 2A).
– Motor protection via thermo contacts (not for PTC thermister). The regulator switches off automatically in the case of overload.

Specifications:

– Option to connect several fans with the maximum connection current.
– Protection class IP54/IP21.
– Selector to switch the fan to 6 positions, including off.
– Green operating lamp.
– Option to connect a room and/or construction thermostat.
– Option to control an air valve for example via a co-switching contact (max 2A).
– Motor protection via thermo contacts (not for PTC thermister). The regulator switches off automatically in the case of overload.

Specifications:

– Option to connect several fans with the maximum connection current.
– Protection class IP54.
– A selector to switch the fan to high, low and off.
– A green operating lamp.
– The option to connect a room and/or construction thermostat.
– The option to control an air valve for example via a co-switching contact (max 2A).
– Motor protection via thermo contacts (not for PTC thermister). The regulator switches off automatically in the case of overload.

Can be used for:

– Tanner MDA (230V)
– MDV Blue (230V)
– Ecofan W
– Ecofan P (6A)

Can be used for:

– Tanner MDA (400V)
– MDV Blue (400V)
– Easyair T200

Can be used for:

– Tanner MDA (400V)
– Easyair T200

HMI-EC Controller

Order code: 0699150

The HMI-EC controller is an electronic controller with an LCD screen especially for the range of EASYAIR air curtains. The controller manages the performance of an air curtain by means of fan revolutions and control of the air heating capacity.

The HMI-EC is equipped with a Modbus RTU port that supports communication with BMS systems. The controller is suitable for all types of EASYAIR air curtains.

Specifications:
– Power supply: 1*90-240 VAC 50/60 Hz
– Type of temperature sensor NTC, 10 kΩ @ 25 °C
– Temperature setting: 0 °C...50 °C
– Precision temperature measurement: ±0.5 °C
– Relative humidity: 10-90% with no condensation
– Protection class: IP20
– Dimensions: 86 x 86 x 48 mm
– Weight: 150 gr

Can be used for:
– Easyair

3-position selector MDC 230V

Order code: 0631175

Selector to switch the fan on the MDC 230V to 3 positions.

Can be used for:
– Tanner MDC (230V)
– In combination with MDC 230V motor control
  Order code: 3003500

Speed controller

Order code: 0616040

Controller P140 for max. 9x Ecofan P140 ceiling fans.

Specifications:
– On/off button
– Selector to switch the fan to 10 different positions, from low to high.
– Power supply: 230/1 Ph/50Hz
– Max amperage: 3 A
– Up to max. 9x Ecofan P ceiling fans
– Up to max. 2x Ecofan W42 / 1x W82
– Ambient temperature: 0-40 °C
– Dimensions surface mounting: 108x108x60 (lxwxh)
– Dimensions flush mounting: 108x108x55 (lxwxh)

Can be used for:
– Ecofan P140
– Ecofan W42 / W82

WEB MODULE

WEB-BASED

Order code: 0629187 (Temporarily unavailable)

Module for remote control and reading out an Optitherm+ thermostat by means of an app for mobile phone and tablet. The Optitherm+ is suitable for GS+/GSX/GC+ air heaters.
A WiFi bridge (0629186) can be added to create a wireless connection.

You need a separate Optitherm+ and Web module for each unit that you want to read out via the app. When using one Web module, only the fault messages and history of the first unit can be read via the app. It is possible to control multiple unit with one Web module via the app.

Can be used for:
– Optitherm+ (0629185)
– GS+
– GSX
– GC+

INTERFACE+

Order code: 3002866

An Interface+ can be used in two ways.

1. Power control: An externally supplied 0-10VDC signal is converted into a power control of the burner. With an Interface+ module, one G(S)+ can be controlled.
Potential free entry: Reset
Potential free exits: Malfunction
                            Operation

2. Connection BMS (building management system): Settings, actual temperatures and fault codes can be read using Modbus. Settings of the OptiTherm+ can be modified.

Specifications:
– Wiring: Shielded data cable (between Interface+ and air heater)
– Dimensions: 109x154x49 mm (lxwxh)
– Weight: 498 grams
– Degree of protection: IP20
– Ambient temperature: 0-40°C

Can be used for:
– GS+
– G(C)+
– GSX

Pressure sensor	Potentiometer with on/off contact	Multi-functional controller 230V with integrated display

Order code: 3004561 (230V)
3004560 (400V)

Order code: 0631390

Order code: 0629400

To control an EC-fan based on pressure.	To variable control the MDV Blue EC fan through a 0-10V signal.	Controller to control MDV Blue fans on the basis of temperature and CO2, constant flow, constant pressure, constant humidity, constant CO2, CO2 and temperature.

Specifications:

– Measuring range: 0-2500Pa
– Accuracy: 0,5% * measured value ±2,5Pa
– Maximum pressure: 20kPA
– Dimensions: 91x75x38mm (wxhxd)
– Ambient temperature:
 -20 / +40°C (operation)
 0 / +50°C (display)
– Humidity environment: 10-95 %RH
– Protection class: IP54
– Weight: 110 grams
– Output: 0-10Vdc, 2-10Vdc, 0-20mA, 4-20mA"

Specifications:

– Type: 10K
– Resistance: 10kOhm (-20% / +20%)
– Contact load: 1A 230Vac
– Ambient temperature: 35°C
– Protection class: IP54 built-on, IP44 built-in
– Weight: 145 grams
– Color: RAL 9010
– Housing: Plastic ASA
– Mounting: built-in or built-on

Specifications:

– Power supply: 230Vac ±10%
– Protection class: IP40
– Dimensions (wxhxd): 87x87x42mm
– Modbus: RS485 connection (slave)
– Temperature range: 0-50°C
– Languages: English, German, Danish and Swedish
– Easy to operate
– Contrast adjustable
– Menu password protection is possible
– Output: 0-10V
– Relay contact: NO 250Vac 5.0A-AC1
– With overtime timer adjustable 0-240min
– Suitable to connect a presence sensor, temperature sensor, CO2 sensor, humidity sensor and pressure sensor.
– Equipped with a switch with weekly program up to 10 blocks per day
– Weight: 160 grams

Can be used for:

– MDV Blue EC

Can be used for:

– MDV Blue EC
– Tanner MDA EC
– LDA Swirl
– Ecofan W EC

Can be used for:

– MDV Blue AC
– MDV Blue EC

Room presence sensor for multi-functional controller

Order code: 0629414

PIR presence sensor for mounting on the wall.

Specifications:
– Dimensions (wxhxd): 85x85x33mm
– Angle: 90°
– Distance: 5 meter
– Switch-off delay: 15 sec. not adjustable
– Protection class: IP20
– Temperature range: +10 / +30°C
– The sensor measures the temperature changes to a limited distance from the front of the sensor.
– Weight: 74 grams

Can be used for:
– MDV Blue AC
– MDV Blue EC

Room temperature sensor ip20 for the multi-functional controller

Order code: 0629410

22K ohm NTC room temperature sensor for wall mounting in IP20 housing.

Specifications:
– Dimensions (wxhxd): 85x85x33mm
– Temperature range: -20 / +40°C
– Accuracy: ±1°C
– Protection class: IP20, humid rooms area 3
– Sensor type: NTC 22K 2%
– Mounting: Wall mounting
– Weight: 88 grams

Can be used for:
– MDV Blue AC
– MDV Blue EC

Temperature sensor IP54 for the multi-functional controller

Order code: 0629411

22K ohm NTC external room temperature sensor in IP54 housing.

Specifications:
– Dimensions (wxhxd): 80x80x55mm
– Temperature range: -40 / +60°C
– Accuracy: 2°C full range
– Protection class: IP54
– Sensor type: NTC 22K 2%
– Mounting: Wall mounting
– Weight: 152 grams
– Storage temperature: -40 / +80°C

Can be used for:
– MDV Blue AC
– MDV Blue EC

Room co2 sensor for the multi-functional controller

Order code: 0629412

To measure the CO2 in a room.

Specifications:
- Dimensions (wxhxd): 85x85x33mm
- Measuring range: 0-2000 ppm
- Accuracy: ±50ppm per 500ppm
- Protection class: IP21
- Mounting: Wall mounting
- Weight: 94 grams
- Operating temperature: +10 / +60°C
- Output: proportional 0-10V 15mA

Can be used for:
- MDV Blue AC
- MDV Blue EC

Room humidity sensor for the multi-functional controller

Order code: 0629413

To measure the temperature and/or the relative humidity in a room.

Specifications:
- Dimensions (wxhxd): 85x85x33mm
- Room temperature: 0 / +60°C
- Accuracy temp.: 0-10V = 0-50°C (max5mA)
- Accuracy temp.: ±1°C
- Humidity output: 0-10V = 0-100%RH (max 5mA)
- Accuracy humidity: ±5% RH (10-90% RH)
- Protection class: IP20, humid rooms area 3
- Sensor type: NTC 22K 2%
- Mounting type: Wall mounting
- Weight: 88 grams

Can be used for:
- MDV Blue AC
- MDV Blue EC

Active pressure & flow sensor with display

Order code: 3004506

Pressure sensor to monitor and control based on pressure difference or flow.

Specifications:
- Measuring range: 0-2500Pa
- Accuracy: -20/+40°C ±3 % (> 350 Pa), ±10 Pa (< 350 Pa)
- Maximum pressure: 20kPA
- Dimensions: 91x75x36mm (wxhxd)
- Room temperature:
  -20 / +40°C (operation)
  0 / +50°C (display)
- Protection class: IP54
- Weight: 110g
- Output: 0-10Vdc, 2-10Vdc, 0-20mA, 4-20mA
- K-factor: 0.1 to 9999 m3/h can be modified to l/s.
- Supply   24Vac ±15%, 50/60 Hz, 3.5-28Vdc
- Setting pressure range: -50/+50 Pa, 0/100 Pa, 0/150 Pa, 0/300Pa, 0/500 Pa, 0/1000 Pa, 0/1600 Pa, 0/2500 Pa
- Setting flow range: 100 m3/h, 300 m3/h, 500 m3/h, 1000 m3/h, 3000 m3/h, 5000 m3/h, 9999 m3/h, 30.00 m3/h x 1000, 50.00 m3/h x 1000, 99.99 m3/h x 1000

Can be used for:
- MDV Blue EC
- Airstream

W9 G+	**C10**	**C12**

Order code:	W9-1	GS+	3004401
	W9-2	GS+	3004402
	W9-3	GS+	3004403
	W9-4	GS+	3004404
	W9-5	GS+	3004405
	W9-6	GS+	3004406

Order code: 3004231

Order code: 3004233

W9 G+

Switchbox for modulating regulation of 1 or more modulating air heaters based on room temperature.

Specifications:
- Steel box with cylinder lock
- One 230V power supply group per device with a switchbox for several devices.
- Digital time switch with weekly programme.
- Day and night temperature regulator.
- Holiday switch to operate devices at the night-time temperature over longer periods.
- Overtime timer adjustable from midnight to 6.0 a.m.
- Selector per device for "heat / off / ventilate".
- Illuminated reset button per device to indicate and reset a burner trip
- A room temperature sensor supplied separately.

Can be used for:
- GS+
- GC+

C10

Switchbox for controlling a Calflo with on/off fan based on room temperature with minimum inlet temperature restriction.

Specifications:
- Steel box with cylinder lock
- Regulator for the room temperature and minimum inlet temperature restriction using 2-10Vdc control signal.
- Selector for heat/off/ventilate.
- Failure lamps for:
    - Burner failure
    - Intake air failure
    - Burner fan thermally off
    - Maximum failure
    - Dirty filter
- Operating lamps for:
    - Burner on
    - Burner in operation
    - Release of control
- Reset button to reset a burner failure.
- Voltage free contact to operate extraction (24Vmax).
- Voltage free contact (supply to third parties) to check whether extraction is operating.
- A room temperature sensor supplied separately.
- A duct temperature sensor supplied separately for the minimum inlet temperature restiction.

Can be used for:
- Calfo on/off model

C12

Switchbox for controlling a Calflo with on/off fan based on room temperature with minimum inlet temperature restriction.

Specifications:
- Steel box with cylinder lock
- Regulator for the room temperature and minimum inlet temperature restriction using 2-10Vdc control signal.
- Selector for heat / off / ventilate.
- Digital time switch with weekly programme.
- Holiday switch to allow devices to operate at the night-time temperature over longer periods.
- Overtime timer adjustable from midnight to 6.00 a.m.
- Failure lamps for:
    - Burner failure
    - Intake air failure
    - Burner fan thermally off
    - Maximum/gas pressure failure
    - Dirty filter failure
- Operating lamps for:
    - Burner on
    - Burner in operation
    - Supply fan on
    - Release control
- Reset button to reset a burner failure.
- Voltage free contact to operate extraction (24Vmax).
- Voltage free contact (supply to third parties) to check whether extraction is operating.
- A room temperature sensor supplied separately.
- A duct temperature sensor supplied separately for the minimum inlet temperature restiction.

Can be used for:
- Calfo on/off model

C20	C22	SLR on/off

Order code: 3004241

Switchbox for controlling a Calflo with high/low fan based on room temperature with minimum inlet temperature restriction.

Specifications:
– Steel box with cylinder lock
– Regulator for the room temperature and minimum inlet temperature restriction using 2-10Vdc control signal.
– Selector for heat / off / ventilate.
– High/low selector supply fan selector.
– Failure lamps for:
    – Burner failure
    – Intake air failure
    – Burner fan thermally off
    – Maximum/gas pressure failure
    – Dirty filter
– Operating lamps for:
    – Burner on
    – Burner in operation
    – Supply fan low
    – Supply fan high
    – Release control
– Reset button to reset a burner failure.
– Voltage free contact to start extraction (24V max).
– Voltage free contact to switch extraction to high (24V max).
– Voltage free contact (supply to third parties) to check whether extraction is operating at low.
– Voltage free contact (supply to third parties) to check whether extraction is operating at high.
– A room temperature sensor supplied separately.
– A duct temperature sensor supplied separately for the minimum inlet temperature restiction.

Can be used for:
– Calflo high/low model

Order code: 3004243

Switchbox for controlling a Calflo with high/low fan based on room temperature with minimum inlet temperature restriction. With day/night temperature monitoring.

Specifications:
– Steel box with cylinder lock.
– Regulator for the room temperature and minimum inlet temperature restriction using 2-10Vdc control signal.
– Selector for heat / off / ventilate.
– High/low selector supply fan selector.
– Digital time switch with weekly programme.
– A holiday switch to allow the device to be operated at the night-time temperature over longer periods.
– A digital timer (0-6 hours) to switch to the daytime mode temporarily outside the clock programme.
– Failure lamps to indicate:
    – Burner failure
    – Intake air failure
    – Burner fan thermally off
    – Maximum failure
    – Dirty filter
– Operating lamps to indicate:
    – Burner on
    – Burner in operation
    – Supply fan low
    – Supply fan high
    – Release control
– Reset button to reset a burner failure.
– Voltage free contact to start extraction (24V max).
– Voltage free contact to switch extraction to high (24V max).
– Voltage free contact (supply to third parties) to check whether extraction is operating at low.
– Voltage free contact (supply to third parties) to check whether extraction is operating at high.
– A room temperature sensor supplied separately.
– A duct temperature sensor supplied separately for the minimum inlet temperature restiction.

Can be used for:
– Calflo high/low model

Order code:

Switchbox for turning 1 or more Infra Lines on/off based on room temperature, with day/night temperature setting.

Specifications:
– Steel box with cylinder lock.
– 230V supply group per device.
– Digital time switch with weekly programme.
– Day and night temperature control.
– Holiday switch to allow devices to operate at the night-time temperature over longer periods.
– Overtime timer from 0-6 hours.
– Infra Line on/off selector per device.
– Illuminated reset button per device to indicate and reset a burner trip.
– A black bulb temperature sensor supplied separately.

Can be used for:
– Infra Line on/off model

307

MDC 230V motor control up to 3.0kW

Order code: 3003500

To be able to switch the 1~230V fan on the MDC. Plus the option to connect an external room thermostat and a 3-position selector for the fan.

Specifications:
– Steel box.
– Solenoid switch to control the fan.
– Connecting terminals for external room thermostat.
– Connecting terminals for external 3-position selector.

Can be used for:
– Tanner MDC (230V)

MDC 400V motor control

Order code: 3003502 (1,1 kW)
3003503 (1,5 kW)
3003504 (2,2 kW)
3003505 (3,0 kW)

To control the 3~400V fan on the MDC. Plus the option to connect an external room thermostat.

Specifications:
– Steel box.
– Solenoid switch to control the fan.
– Connecting terminals for an external room thermostat.

Can be used for:
– Tanner MDC (400V)