ZONiNG

the smart decisions leads to happiness

23.5°C ☀

ID 01M

23.7 °C

MENU | UP | DOWN | FAN

AUTO

24°

20°

ZONiNG

Regulating temperature by zone

Enables independent temperature control in different rooms in your home, commercial premises or office with a single centralised production unit.

Confort and energy saving

Why control all the zones in the same way in centralized air conditioner?

By dividing the rooms into zones you can calculate the air conditioner for its maximum simultaneous power (considering occupation, orientation of facades ...), not for its maximum total power, obtaining savings in the initial investment and energy in the nominal power consumed by the air conditioner.

Applications and references

In residential and commercial buildings, where the personal comfort and the rational use of energy are a requirement.

Flats, appartments and houses, to reach the total confort in each of the rooms of your house. Also in offices and commercial buildings to allow an independent temperature control of each zone, avoiding to use the air conditioning in unoccupied zones

More than 25.000 installations and 15 years of experience endorse our system, being able to give the proper solution for any requirement from our customers.

Adaptable to all types of buildings and air conditioning systems
Direct expansion, VRV, hydronic systems...

kW
Rational use of energy, consumption adjusted to actual requirements.
Avoiding the use of air conditioning in unoccupied zones
Rational use of energy, consumption adjusted to actual requirements.
Avoiding the use of air conditioning in unoccupied zones

Complete integration With the air conditioning unit thanks to the communications interfaces

Open communication
With home and building automation systems
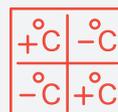
Personal comfort
For each of the different zones

- 50%
Energy saving of up to 50%
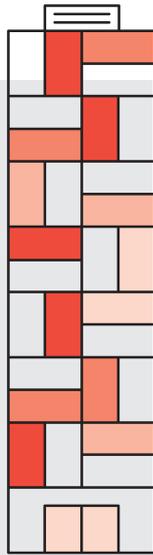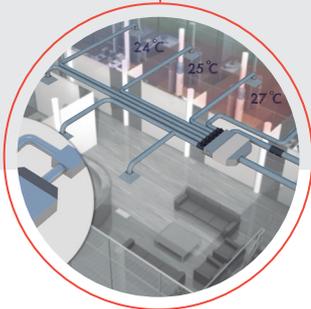Compared to conventional centralised installations

Flexible For both wired and wireless solutions

ZITY 2.0 multi-zone control platform, is the solution for any type of buildings...

Zoning in offices

Zoning in houses

Direct expansion 1x1

Control of any Direct expansion (DX) air conditioning unit, using the corresponding machine interface of each brand and model.

Complete integration of the changeover Cooling/Heating from the MADEL master thermostat., semi-automatic fan speed control and optimization of Inverter system to reduce the power consumption.

Direct expansion vrf

Control of VRF ducted direct expansion (DX) units, using the corresponding machine interface of each brand and model.

The integration of VRF protocols in a new ZITY 2.0 control unit means that the VRF equipment functionalities can be combined with all the advantages of a Zoning system.

The RS485 remote port permits communication with the BMS system using the Modbus RTU communication standard.

Ducted fan-coil units

Control of ducted fan-coil units, in individual or centralized installations and for 2 or 4 pipes configurations.

Water valve (on/off) and fan speed control (conventional or inverter). Protection Temperature sensors and auto-mode detection.

...and any centralized air-conditioning system
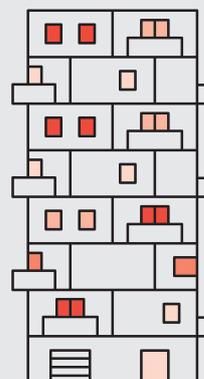
Zoning in commercial premises

Zoning in apartments

Multizone heating system

For centralized multi-zone heating installations, with radiators or underfloor heating.

Thermostatic valve and pump or heater control by the use of free contact relays. NTC protection sensor included.
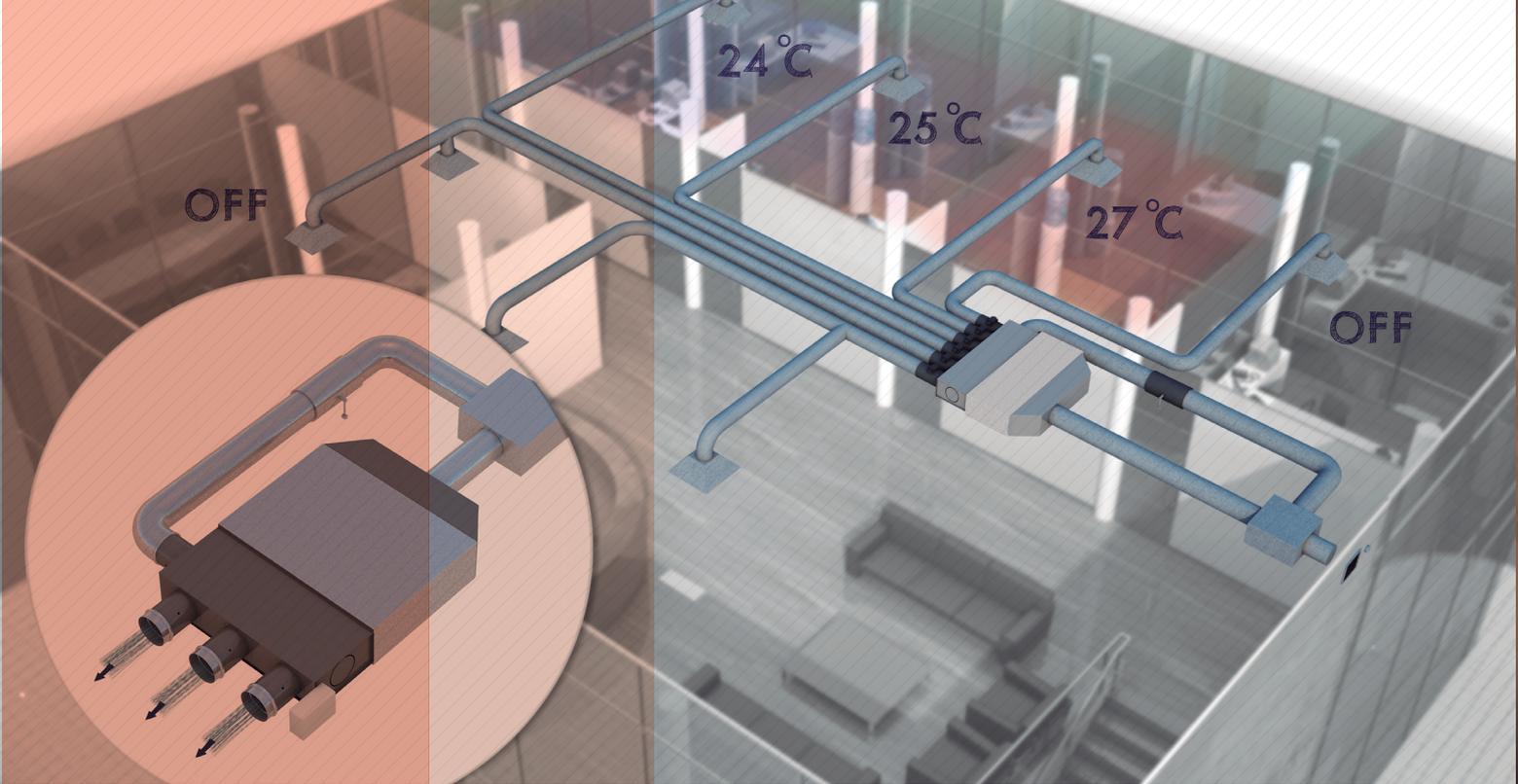
Hybrid system

For installations where air ducted units and radiant units are combined in the same installations.

Specific control protocols for air-to-water systems.

Integration of all the different climatization systems in the same single thermostat.

Solutions

24 °C

25 °C

27 °C

OFF

OFF

Zmartbox is the plug&play solution
For any residential or commercial
Air conditioning installation

ZmartBox is the plug&play solution for multi-zone control in ducted AC installations.

ZmartBox is formed by a Zoning control kit (control unit + thermostats + communication interface) and a motorised distributing plenum (with 2 to 6 outputs + bypass if necessary), compatible with most internal air conditioning units based on direct expansion and duct fan-coils.

The **ZmartBox** set is delivered completely cabled, configured and ready to be installed onsite **#PlugandPlay.**
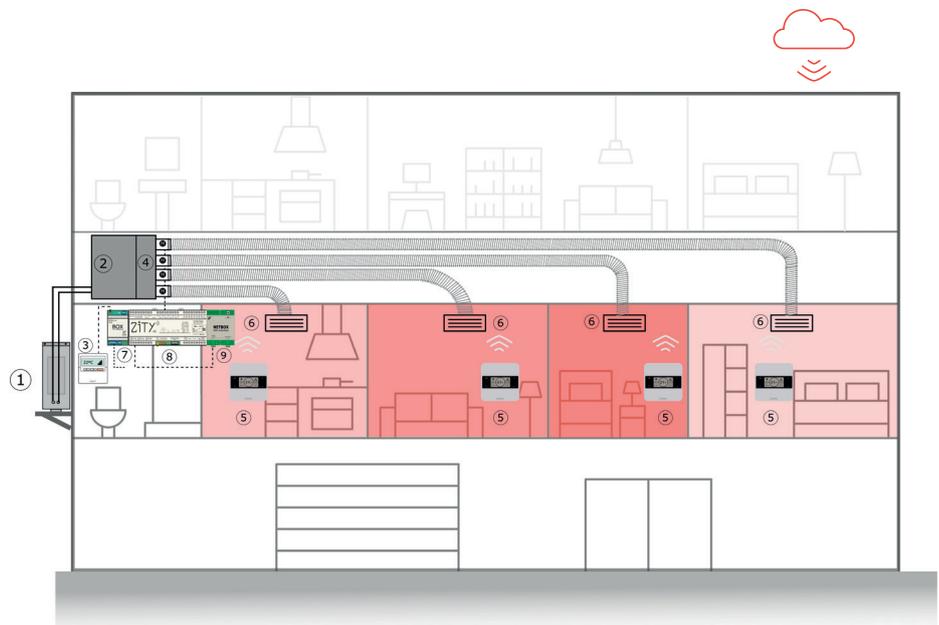
|				
1	External A/C	6	Supply Grille
2	Internal A/C	7	A/C Machine Communication Interface
3	A/C Unit Control	8	ZITY 2.0 Central Control Unit
4	ZmartBox	9	NETBOX Communication Interface
5	ZEUS Wireless Zone Thermostat		

Combined air conditioning and heating

Zoning offers the possibility of multi-zone control in hybrid air/water systems, whether by Combining direct expansion units with boilers or Air-to-water units that combine ducted fan-coils and radiators.

The **ZITY 2.0** modular control system allows to combine both type of installations (air+water) to guarantee the optimal control of both.

For any type of residential or commercial facilities, where the combined systems are usually installed. Permits adjustment of the temperature in each different room or office to the election of the occupants, as well as the deactivation of unoccupied zones.
By using a thermostat in each zone, you can increase the comfort of the occupants and reduce power consumption.
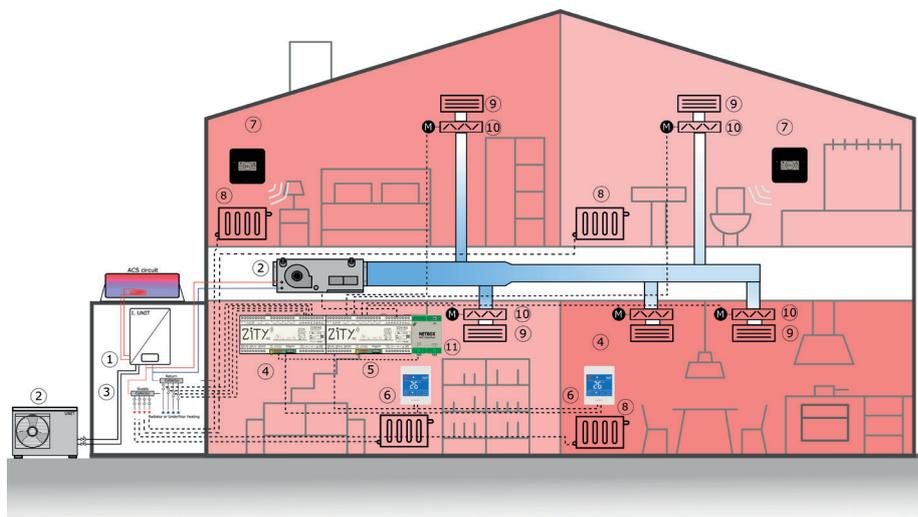
1	Interior Air-to water Unit	6	ZEBRA Wired Zone Thermostat
2	External Air-to water Unit	7	Radiators or Radiant Floor
3	Thermostatic valves manifold	8	Supply Grille
4	ZITY 2.0–W (*) Master Control Unit	9	Motorized Zone Damper
5	ZITY 2.0–W/MC (*) Slave Control Unit	10	NETBOX Communication Interface

Air conditioning with inverter or conventional ducted fan-coil units

Zoning control for central air-conditioning installations where ducted fan-coil units (FCU) are used, either Inverter 0-10V units or conventional zones.

The functionalities of the Zoning control added to FCU's allow to guarantee an optimal installation, by controlling the water temperature, the duct pressure (using the **KBY** electronic pressure control) and controlling the water valves of FCU inlet..

The **ZITY 2.0** control system permits the adjustment of the temperature in each different room or office to the selection of the occupants, as well as the deactivation of unoccupied zones.

The multi-zone ducted FCU's solution is very suitable for any type of installations, from small apartments to commercial or retail buildings.
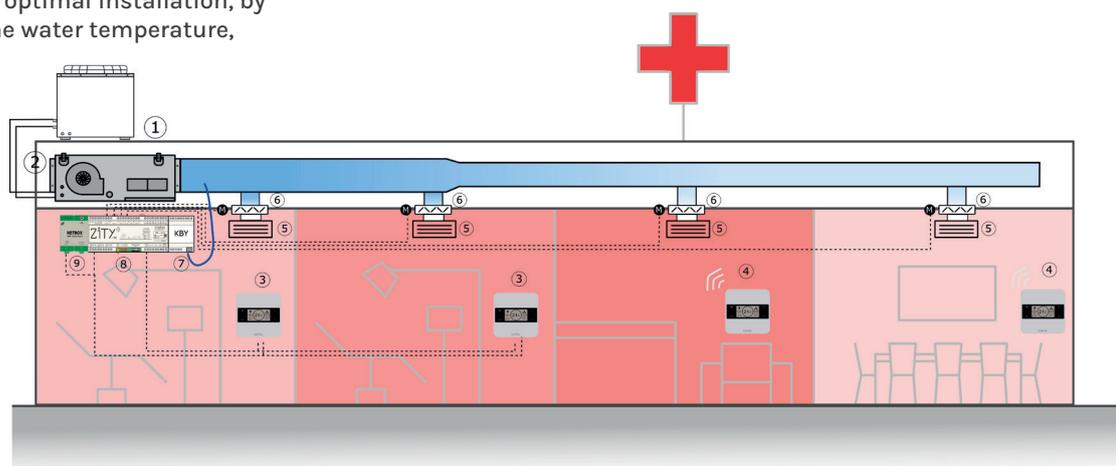
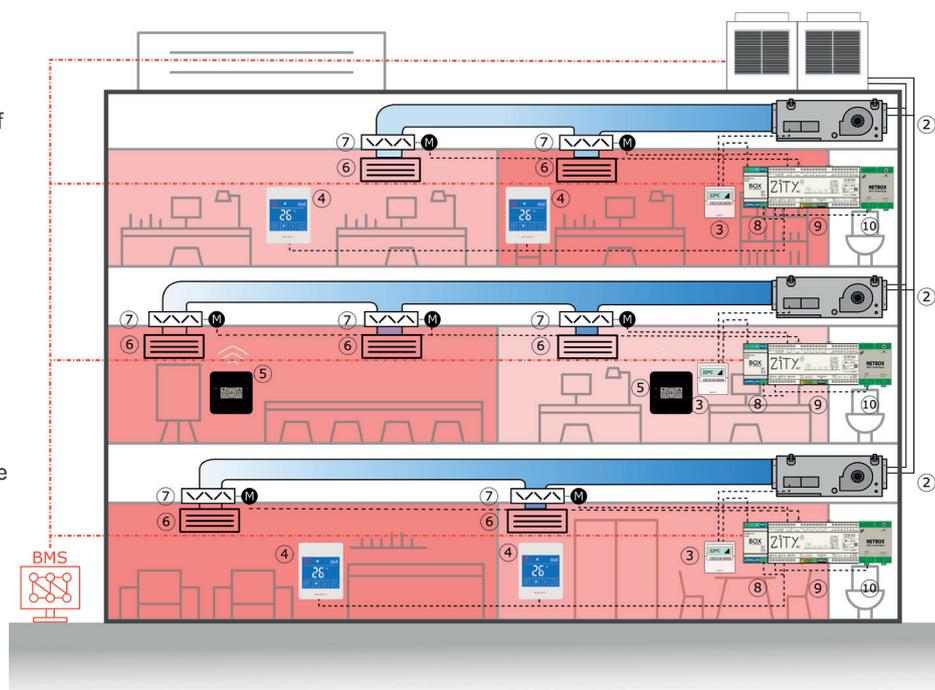| 1	Chiller	5	Motorised Zone Damper
2	Fan-coil Unit	6	KBY: Módulo de control motor EC 0-10V
3	ZEUS Wireless Zone Thermostat	7	ZITY 2.0 Central Control Unit
4	Supply grille	8	NETBOX Communication Interface

Full ducted multi-zone vrf installations, integrated in bms systems

The integration of VRF protocols in a new **ZITY 2.0** control unit means that the VRF equipment functionalities can be combined with all the advantages of the Zoning system.

The RS485 remote port permits communication with the BMS system using the Modbus RTU communication standard. This universal protocol, along with the flexibility of the **ZITY 2.0** system permits fast integration with building management systems.

Specially conceived to use in office, commercial and public buildings where the VRF systems are commonly used.

1	External VRF Unite	6	Supply Grille
2	Internal VRF Unit	7	Motorised Zone Damper
3	A/C Unit Control	8	A/C Machine Communication Interface
4	ZEBRA wired Zone Thermostat	9	ZITY 2.0 Central Control Unit
5	ZEUS Wireless Zone Thermostat	10	NETBOX Communication Interface

Products
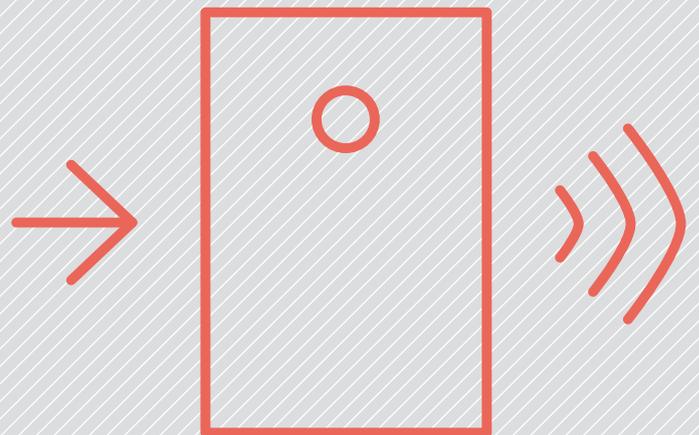
NETBOX Cloud communication gateway for controlling Zoning systems from your portable devices.

Easy to install and to integrate through the Wi-Fi network.

Compatible with the new Zoning 2.0 APP, available from the App Store (IOS) and Google play (Android).

Simple and intuitive control interface to manage your ZONING system wherever you are.

New weekly or periodic programming by zone, with different temperature levels to optimize energy consumption at every moment of the day.

User friendly installation and connection with Wi-Fi networks.
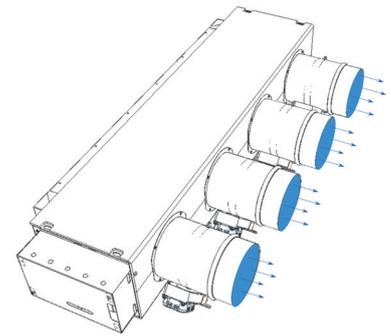
FLEXIFAN & FLEXIFLOW: Precise regulation.

Regulating the airflow arriving in each room is essential to guarantee maximum comfort and energy efficiency from air conditioning systems. The Flexiflow & flexifan systems act either directly on the motorized damper of each zone (Flexiflow) and through the speed of the indoor unit fan (Flexifan).

The new FLEXIFLOW system is designed to individually regulate the angle traveled by the motor in each of the motorized dampers per zone (circular ZC dampers or Zmartbox plenum equipped with motorized dampers). This adjustment allows you to:
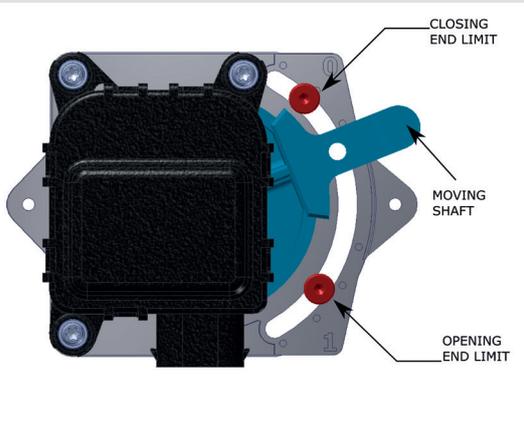
1. Leave a minimum air flow in non-active areas or compensate for the absence of By-Pass (leakage flow)

2. Limit the maximum flow of each zone and thus be able to balance the duct networks.

CLOSING END LIMIT

MOVING SHAFT

OPENING END LIMIT
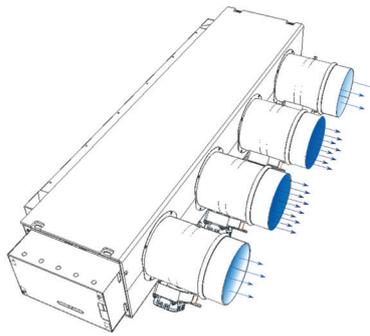
Without the Flexiflow adjustment, some areas would receive a higher airflow than others, either because of the sizing of the duct, or because of pressure drops within the duct network.

The Flexifan system changes the indoor unit fan operation patterns according to the number of zones requested. This makes it possible to adapt the zone system to the particularities of each installation:

Flexifan Auto: The fan speeds adjust proportionally to the number of active zones.

Once the start-stop and end-stop of the Flexiflow system have been adjusted, it is possible to distribute the airflow uniformly or according to the specific needs of the installation.

Flexifan 1: Low speeds have priority. Ideal solution to provide acoustic comfort.

Flexifan 2: Medium and high speeds have priority. Very suitable for periods of high demand or for rapid treatment of rooms.

Flexifan 3: High speed priority. To be used when the air conditioning must be done quickly.
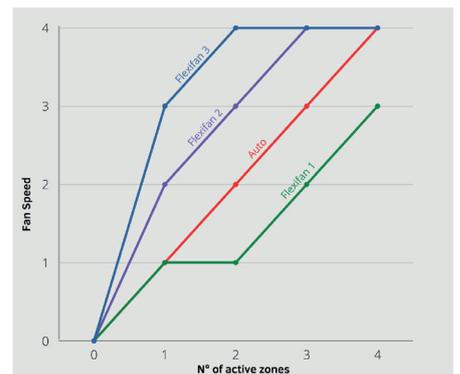
ZMARTBOX

PLZON, PLMAC Zoning kit plug & play

ZMARTBOX is a flanged motorized regulation plenum control kit (2 to 6 insulated dampers with BOSCH motor + by pass if needed), control board + zones thermostats + communication interface (for CMV) and a compatible with most of CMV units or Fan coil.
The ZmartBox set is delivered fully wired, configured and ready to be installed on site. #PluganandPlay

ZMARTBOX/DX Plug and play Zoning Kit for CMV units
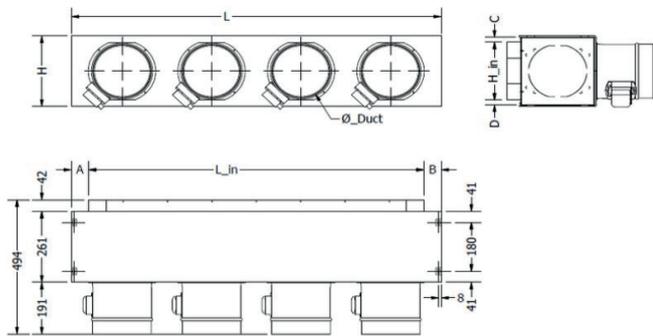**ZMARTBOX/FC** Plug and play Zoning Kit for fan-coil units

Plenum to adapt to A/C duct units:

PLZON Plenum with motorized dampers and mounted by-pass
PLMAC Plenum with circular ducts outlets
PLREP Plenum for duct unit return

Dimensions and configurations

Consult for other dimensions special configurations

* Plenums with different diameters are supplied with ZAD adapters

LxH (mm)	L1	L2	L3	L4
H1	750x200x494	1050x200x494	1250x200x494	1500x200x494
H2	750x250x494	1050x250x494	1050x250x494	1500x250x494

Compatibilities

DAIKIN
SKY AND VRV LINES

MITSUBISHI ELECTRIC
DOMESTIC, MR SLIM AND CITY MULTI LINES

MITSUBISHI HEAVY INDUSTRIES, LTD.
FD AND HYPERMULTI LINES

GENERAL
DOMESTIC AND VRF LINES

AUX AIR CONDITIONER

FUJITSU

HIYASU

Fuji Electric
DOMESTIC LINE

Panasonic
ECOI AND PACI LINES

SAMSUNG
NON-NASA VRF AND DOMESTIC

BAXI

Kaysun
VRF LINE

LG
DOMESTIC AND VRF LINES

Midea
VRF LINE

MUNDOCLIMA

Haier

Hisense
COMERCIAL AND VRF LINES

TOSHIBA
DIGITAL INVERTER AND VRF LINES

HITACHI
COMERCIAL AND VRF LINES

GREE

Typical installation drawing
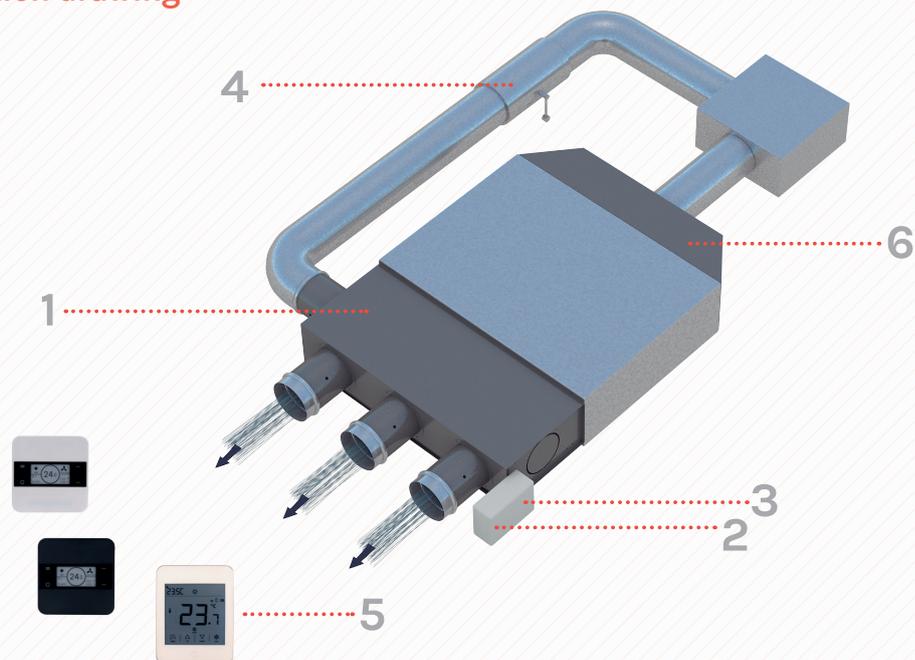
1 PLZON

Splitter plenum box and motorised dampers: Adaptable directly to the indoor ducted AHU. Thermo-acoustically isolated.

2 ZITY 2.0

ZITY 2.0 control panel: Comes wiring, configured and mounted.

3 INTERFACE

Communication **interfaces** between **Zoning** and ducted direct expansion units. Allows the changeover cooling/heating from the **Zoning** master thermostat, the automatic fan speed adjustment and an increase of the efficiency due to the modulation of the set-point.

4 BYPASS*

Mechanical or electronic by-pass dampers: to adjust the pressure variations due to the closure of the zone dampers.

*They should be installed when the modulation of the ventilation speeds controlled by the interfaces is not sufficient to compensate the excess pressure in the installation.

5 THERMOSTATS

Wired (W) or radio (RC), digital **chrono-thermostats**, to control the temperature in eacho of the zones. Weekly programming, blocking functionalities and limitation of setpoint temperatures.

6 PLREP

Duct unit return plenum with circular or oval pre-cut according to unit dimension

ZITY 2.0

Multi-zone system for centralized air conditioning and heating installations

From 2 to 12 zones
> COMMUNICATION
  Wireless or wired
> APPLICATION
  For Direct expansion, fan-coil or radiant units
> INTEGRATION
  into BMS Modbus RTU

Control platform for air conditioning and heating equipment for 2 to 12 zones. Control of direct expansion units, hydronic fan coil units and underfloor heating systems or radiators. Communication with the thermostats in the zone via Radio or wired. Comes with 2 Rs485 communications ports for integration into building management systems.

Control board:
ZITY 2.0-RC Universal radio control board.
ZITY 2.0-W Universal cable control board.

Expansion modules and combined equipment
The **ZITY 2.0** universal control board allows on-site configuration to convert any 2.0 control board into a zone expansion, combined or Slave module.
It is recommended to use ZITY 2.0-W control board for this purpose.
 Examples:
Radio control board + zone expansion: **ZITY 2.0-RC + ZITY 2.0-W** (configured on site as an expansion module)
 Cable control board + combined module: **ZITY 2.0-W + ZITY 2.0-W** (configured on site as a combined module)

Implemented solutions

• **1x1:** Split 1x1 units control by using the machine communication interfaces.

• **VRF:** VRF units control by using the machine communication interfaces and specific protocols and functionalities for this kind of installations.

Hydronic

• **2-4 Pipe Fan-coil Units:** Fan speed and water valve control. Optionally remote mode (heat-cool) setting.

• **Mutli-zone heating:** By controlling up to 18 thermostatic zone valves. For radiators or under-floor heating installations.

Combined

• **Air-to-water:** Specific protocols for this type of installations.

• **DX+multi-zone heating:** To integrate both systems, direct expansion and radiators or under-floor heating, in each single zone thermostat.

• **Fan-coil +multi-zone heating:** To integrate both systems, Fan-coil and radiators or under-floor heating in each single zone thermostat.

Fle⊗iFan

Adaptive fan-speed control of the ducted unit, in function of the number of zone and the typology of the installation.

Basic wiring diagram
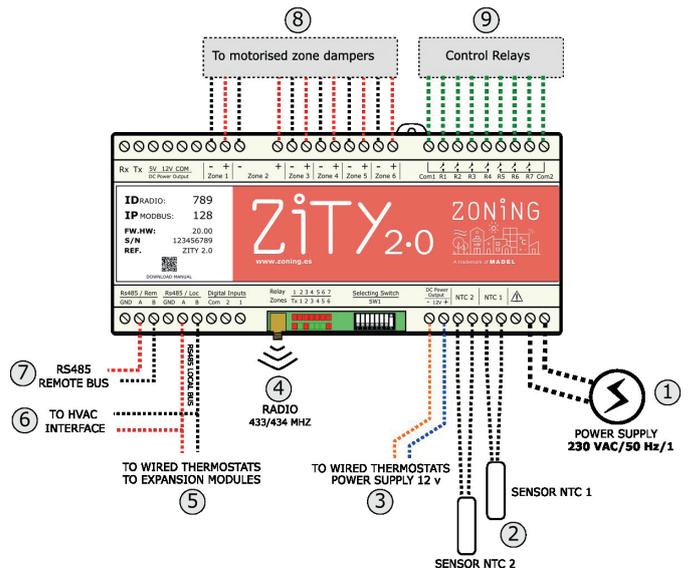
1 Power Supply: 230 VAC/50 Hz/1

2 NTC temperatura Sensors. Ask for locating it in function of machine type.

3 Power Output 12 VCC for wired thermostats.

4 Radio Antenna 433/434 MHz (only for ZITY-RC).

5 Local communication bus Rs485. For wired thermostats and expansion modules.

6 Local communication bus Rs485. To communicate with machine interfaces. Parallel connection with the previous bus.

7 Remote communication bus Rs485. To communicate with external BMS modbus RTU systems.

8 Power Output 24 VCC for motorized dampers. Maximum 2 dampers for zone.

9 Output relays. Ask for specific wiring of each unit.

Technical characteristics

ZITY 2.0 Control unit
• Power 230 VAC/50-60 Hz. ZITY consumption: 6 VA.
• 230 VAC/5A relay outputs (maximum load: 5A. Cos Φ=1)
• Protection grade: IP 20
• Electrical insulation protection, Class II
• Operating temperature: 0 ºC a 55 ºC
• Storage temperature: -10 ºC a 60 ºC
• Dimensions (LxHxZ) 160x90x65 mm
• Weight 0.5 kg

ZITY 2.0/RC
• Mean range Radio: 50 m in open field, 20 m in habitat Adjustable external antenna
• Frequency 434.33 MHz (Optional: 433.92 MHz). Work cycle <10%
• For installation up to 2000 m above sea level. Receiver, CAT III

ZEBRA

**Touch screen wired chrono-thermostat**

Wired digital thermostat (W). Designed to operate in conjunction with the **ZITY2.0** control unit. Bidirectional communication between the control unit and the thermostat. Integration of Master/Slave mode within the same thermostat. Powered directly by the **ZITY2.0** control unit. No batteries required.

Functions

- Individual temperature control by zones
- Temperature control in ECO mode
- ON/OFF control by zone and system ON/OFF (Master thermostat)
- Fan speed control
- Operating mode control (Master)
- Configuration of active operating modes per zone
- Sleep function (OFF timer)
- Anti-frost protection (< 7 oC)
- Locking functions to prevent improper use
- Maximum and minimum temperature limitation

Basic wiring diagram
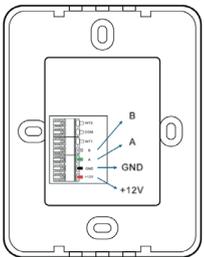
- 12 VDC power supply, provided by the ZITY2.0 control unit
- Communication with the ZITY2.0 control unit via RS485.

The connector is located on the rear side, as shown in the figure below.

Technical specifications

- Power supply: 12 VDC
- Consumption: < 0.3 VA
- Control output: Modbus RTU Rs485
- Wiring S<1.5 mm^2
- Operating temperature: 0 ºC to 50 ºC
- Storage temperature: -20 ºC to 60 ºC
- Humidity Range: 10-90% (non-condensing)
- Wall mount with screws (supplied)
- Protection grade: IP 20
- Temperature sensor NTC10K, accuracy 0.1 ºC
- Adjustable control hysteresis: +/-0.2 to 0.5 ºC
- ECO mode (setpoint variation ±3 ºC)
- Anti-frost protection for T<7 ºC+/-3 ºC
- Dimensions (LxHxD) 85x108x13 mm
- Weight 0.11 kg

ZEUS

Digital Hybrid communication thermostat

Digital electronic ink thermostat with hybrid communication (via Radio or wiring), to work together with the ZITY and ZITY 2.0 control board.
Bidirectional wireless communication via 433/434 Mhz radio or wired bus (Rs485). Communication configuration via menu. Integration of Master/Slave mode in the same thermostat.

Features

- Individual temperature control per zone
- Temperature control in ECO mode
- ON/OFF control by zone and ON/OFF control of the whole system (master thermostat)
- Fan speed control
  Work mode control.
- Bi-directional communication for integration with NETBOX Cloud Gateway
- Blocking functions in case of misuse
- Selection of active modes independently per zone
- Programming of the regulation hysteresis

Technical characteristics

- Power supply 2 x 1.5 V LR06 AA batteries (alkaline)
- Average autonomy 1 year (or more) The batteries are provided / Battery wear indicator.
- Carrier frequency (ISM band, I-ETS 300-220 standard): 433.34 MHz (optional: 434.92 MHz).
- Bi-directional radio communication (average response time 120s)
- Average range: 50 m in free field, 20 m in habitat
- Operating temperature: From 0 oC to 55 oC
- Storage temperature: From -10 oC to 60 oC
- Humidity range 10-90% (non-condensing)
- Wall mounting with screws (included)
- Protection indice IP 20
- NTC10K temperature probe. Accuracy 0.1oC
- Control hysteresis +/-0.5oC
- Economical ECO mode (variation of the setpoint temperature by ±3 oC))
- Antifreeze protection for T<7 oC+/-3 oC
- Dimensions (LxHxZ): 90x90x18 mm
- Weight 0.13 kg (with batteries)

XXXBOX

Direct Expansion (DX) ducted units communication interface

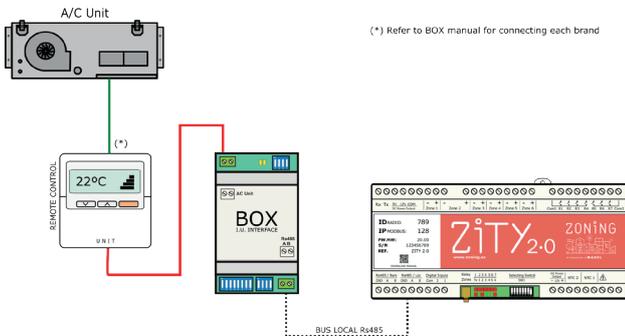# NETBOX

WIFI communication gateway

Communication interface between Zoning control panels and ducted direct expansion air conditioning units (1x1 or VRF). The bidirectional MODBUS communication allows to optimize the operation of both the Zoning system and the air handling unit, allowing an improve of the comfort and of the power consumption.

Communication gateway between the ZITY 2.0 control unit and the CLOUD application " Zoning 2.0". Compatible with the new Zoning 2.0 application, available from the App Store (IOS) and Google play (Android). Simple and intuitive control interface to manage your ZONING system wherever you are. Weekly or periodic programming by zone, including different temperature levels in order to optimize energy consumption at every moment of the day. User friendly installation and connection with Wi-Fi networks

Functionalities

- Allows the complete integration between Zoning System and the air handling unit.
- Allows the changeover Cooling/Heating from the Zoning master thermostat.
- Increases the Inverter system efficiency and reduces the power consumption.
- Allows the automatic fan speed adjustment of the unit improving the comfort and the acoustic level

Basic wiring diagram

Features

- Simple and intuitive APP interface to control your ZONING system wherever you •are.

- Switching on and off each zone separately or of the entire system.

- Remote management of Work mode and Modification of the ventilation speed.

- Weekly or periodical programming zone by zone, with different temperature levels to optimize energy consumption at each moment of the day.

- Easy installation and registration in Wi-Fi networks via Bluetooth.

Technical characteristics

- Enclosure Plastic, type PC (UL 94 V-0) Color: Light Grey
- Mounting Wall DIN rail EN60715 TH35
- Port 1 x Serial EIA485 Plug-in screw terminal block (2 poles)
- Compatible with Modbus RTU EIA-485 networks
- Operating Temperature: 0 ºC to 60 ºC
- Storage Temperature: -20 ºC to 85 ºC
- Storage Humidity: <95% RH, non-condensing
- Isolation voltage 1500 VDC
- Isolation resistance 1000 MΩ
- IP 20 isolation
- Net dimensions (DxWxH) 93x53x58mm
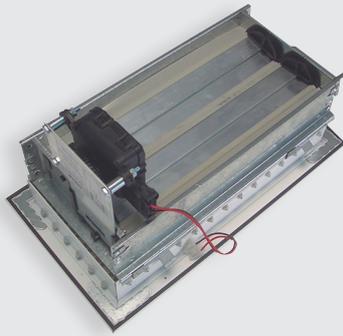- Weight 85 g.

Technical characteristics

- 12 Vdc power supply. (Recommended cable S=2x0.5mm2) Consumption: 8 VA
- RS485/Rem bus: Modbus RTU 9600/8/N/1 protocol
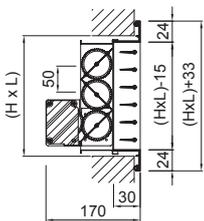- Dimensions (mm): 90 x 90 x 25
- Weight: 0.15kg
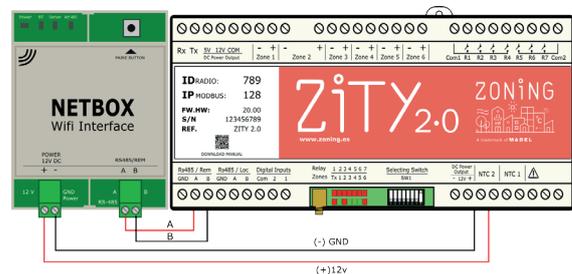
ZP-AZ

Motorized damper for grilles

ZC/ZR/ZQ

Duct motorized damper

Motorized opposed blades volume damper (24 Vdc), suitable for **Zoning** grilles. Blades incorporates a PVC airtight joint. Constructed from aluminum, galvanized steel and gears from polyamide.
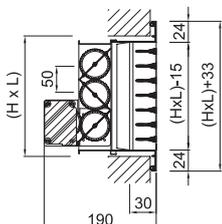
AMT-AN+ZP-AZ Damper with air supply single deflection grille from aluminium. Individually adjustable blades parallels to the largest side (L size).
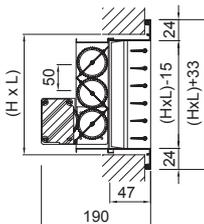
CTM-AN+ZP-AZ Damper with air supply double deflection grille from aluminum. Individually adjustable blades, parallels to the largest side (L size) in the first row.
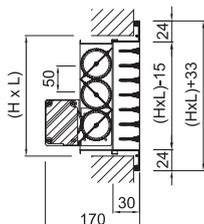
LMT+ZP-AZ Damper with air supply/ return linear grille from aluminum. Fixed bars parallels to the largest side (L size).
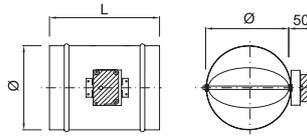
LMT-DD+ZP-AZ Damper with air supply linear grille from aluminum. Front bars parallels to the largest side (L size) and second row of individually adjustable blades parallels to the to the shortest side (H size).
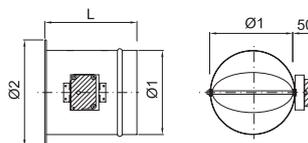
Motorized volume dampers (24 Vdc) suitable to control the air volume in ducts in Zoning.
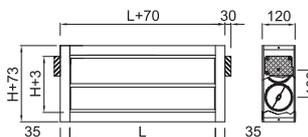
ZC Motorized circular damper. Constructed from galvanized steel and air tightness joint and bearings from rubber. Circular duct mounting.

Ø		L
100	98	295
125	123	295
150	148	295
160	158	295
200	198	295
250	248	335
315	313	335

ZR Motorized circular damper. Constructed from galvanized steel and air tightness joint and bearings from rubber. Incorporated in any plenum box.

Ø1	Ø2	L
100	98	118	195
125	123	143	195
150	148	168	195
160	158	178	195
200	198	218	195
250	248	268	195

ZQ Motorized square damper with blades of 100 mm, parallels to the largest side (L size). Constructed from aluminum and gears from polyamide. Rectangular duct mounting.

Technical characteristics ZP-AZ–ZC–ZR–ZQ

- Power supply 24 VDC
- Nominal Power 0. 22W
- Nominal current intensity 55 mA
- Max current intensity 250 mA
- Protection class IP54

Basic wiring diagram

Control protocol

To avoid damaging the actuator, the open and closing of the dampers is controlled by time (that is done by default in the Zoning control panels)

OPEN: 5 sec + 24 VCC
CLOSE: 5 sec - 24 VCC

KBY

**ZP-AZ, ZC, ZR, ZQ**


ZS/ZG/ZK

Mechanical by-pass dampers

KBY pressure control module enables to set and maintain a constant pressure in a low and medium pressure duct network (20 to 300 Pa). The unit can act on a bypass damper (ZP-AZ, ZC/ZR/ZQ) by means of a 24 Vdc output or directly with a 0-10V output on an EC/DC fan, a frequency variator or a damper with a proportional motor.

The KBY unit includes a pressure sensor, a selection switch and a rotary switch, which enable you to easily set the pressure to be maintained.
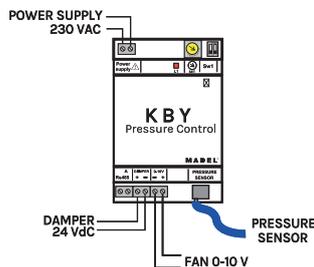
Pressure control on bypass damper
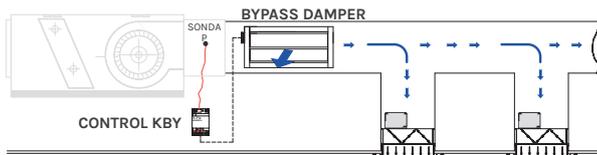
## Pressure control on ec/dc fan
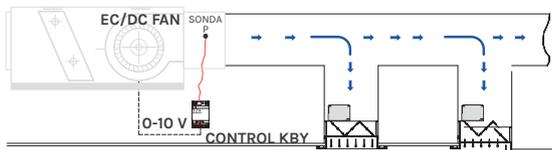
Basic wiring diagram


Technical caractheristics

- Power supply 230 Vca ± 10%, 50/60 Hz. Consumption: 4 VA
- 1 output 24 Vcc, for ZQ / ZC /ZR damper control
- 1 output 0-10 VDC , for EC motor control or proportional damper motor
- Pressure sensor
  - > Nominal measurement range 20 to 300 Pa
  - > Average precision ±5% with respect to set-point
- RS-485 communications bus
- Protection rating: IP 20

Adjustable pressure dampers by means of a counterbalance to maintain the pressure balance in the ductwork for Zoning System Constructed from aluminium and galvanised steel.
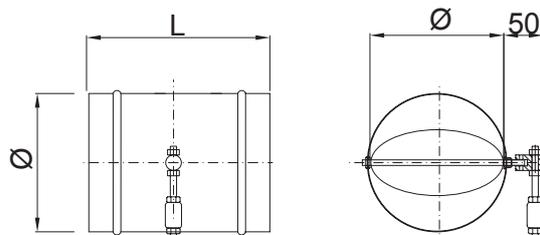
ZS Pressure damper for wall mounting by means of visible screws.
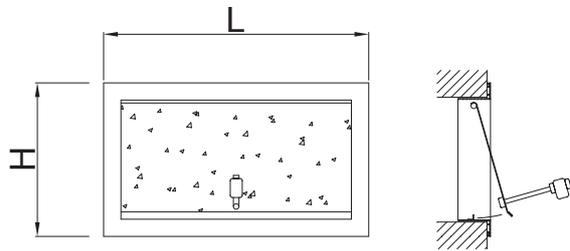
ZG Pressure damper for rectangular duct mounting.
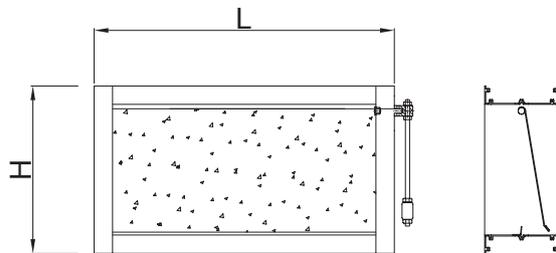
**ZK** Pressure damper for circular duct mounting.

	Ø	L
200	198	295
250	248	335
315	313	335
355	353	335

ZUR

Return unit

Kit consisting of a return grille accessible from the front with filter and a multi-connection plenum (circular and/or elliptical connectors), and thermo-acoustic insulation. The supply of the connectors is separately.
Grilles made of Aluminum and plenum of galvanized steel.
Kit designed to be mounted on a false ceiling.
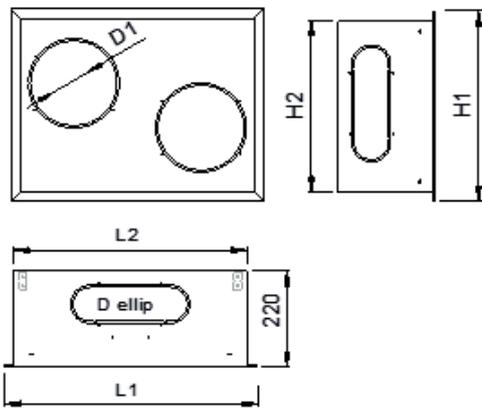
RMT-45-ZUR-PFT Return grille with 45º reticle and G3 filter.

DMT-ZUR-PFT Return grille with 45º inclined fins and G3 filter.

BOXZING Multi-connection plenum with interior thermal insulation.

CD200 Circular connection flange D200
CD250 Circular connection flange D250
CE200 Elliptical connection flange D200
CE250 Elliptical connection flange D250

LxHL	1L	2H	31H	2
500 x 300	533	516	333	290
500 x 400	533	516	433	390
600 x 400	633	616	433	390
MOD 600 x 300	595	579	295	243
MOD 600 x 600	595	579	595	553

LxH	D1 top entry	D Elliptical side entry
500 x 300	2/D198	2/E198 + 2/E(198-248)
500 x 400	1/D198+ 1/D(198-248)	2/E198 + 2/E(198-248)
600 x 400	2/D(198-248)	2/E198 + 2/E(198-248)
MOD 600 x 300	2/D198	2/E(198-248)
MOD 600 x 600	2/D(198-248)	2/E198 + 2/E(198-248)

* Note: D (circular connection). E (Elliptical connection)

Conditions of sale available at: www.zoning.es

The nominal size of the grilles (L x H) indicates the opening sizes for their installation.

When the installation is planned with CM mounting frames, the opening size would be 8 mm bigger (L+8 x H+8) according sizes of the catalogue in mm. General tolerances to norm ISO 2768-1.

RAL finishes

Select the wished colour in the RAL card considering the gloss level:

RAL... Shiny RAL, 85-95% gloss (standard)

RAL...S Semi -gloss RAL, 60-70% gloss
RAL...M Matt RAL, 20-30% gloss (standard supply for RAL 9006)

(*)
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ZONING

the smart decisions leads to happiness