



ZONiNG

the smart decisions leads to happiness

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CONTROL

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PLAZ

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DMT

DFZ-R

ZUR



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, apartments 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.



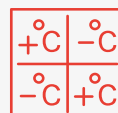
Adaptable to all types of buildings and air conditioning systems
Direct expansion, VRV, hydronic systems...



Open communication
With home and building automation systems



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



Personal comfort
For each of the different zones

- 50%

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



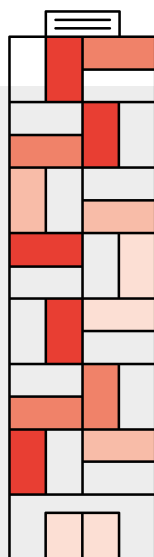
Complete integration With the air conditioning unit thanks to the communications interfaces



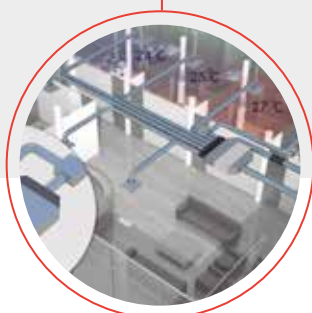
Flexible For both wired and wireless solutions



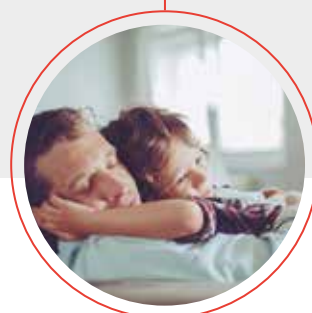
ZITY multi-zone control platform, is the solution for any type of buildings...



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 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.

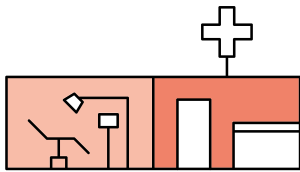
Ducted fan-coil units

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

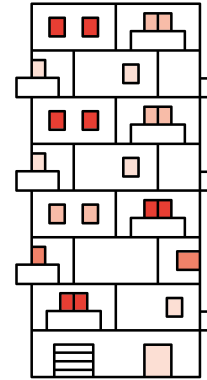
Water valve (on/off) and fan speed control (conventional or inverter). Protection Temperature sensors and auto-mode detection.



...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.

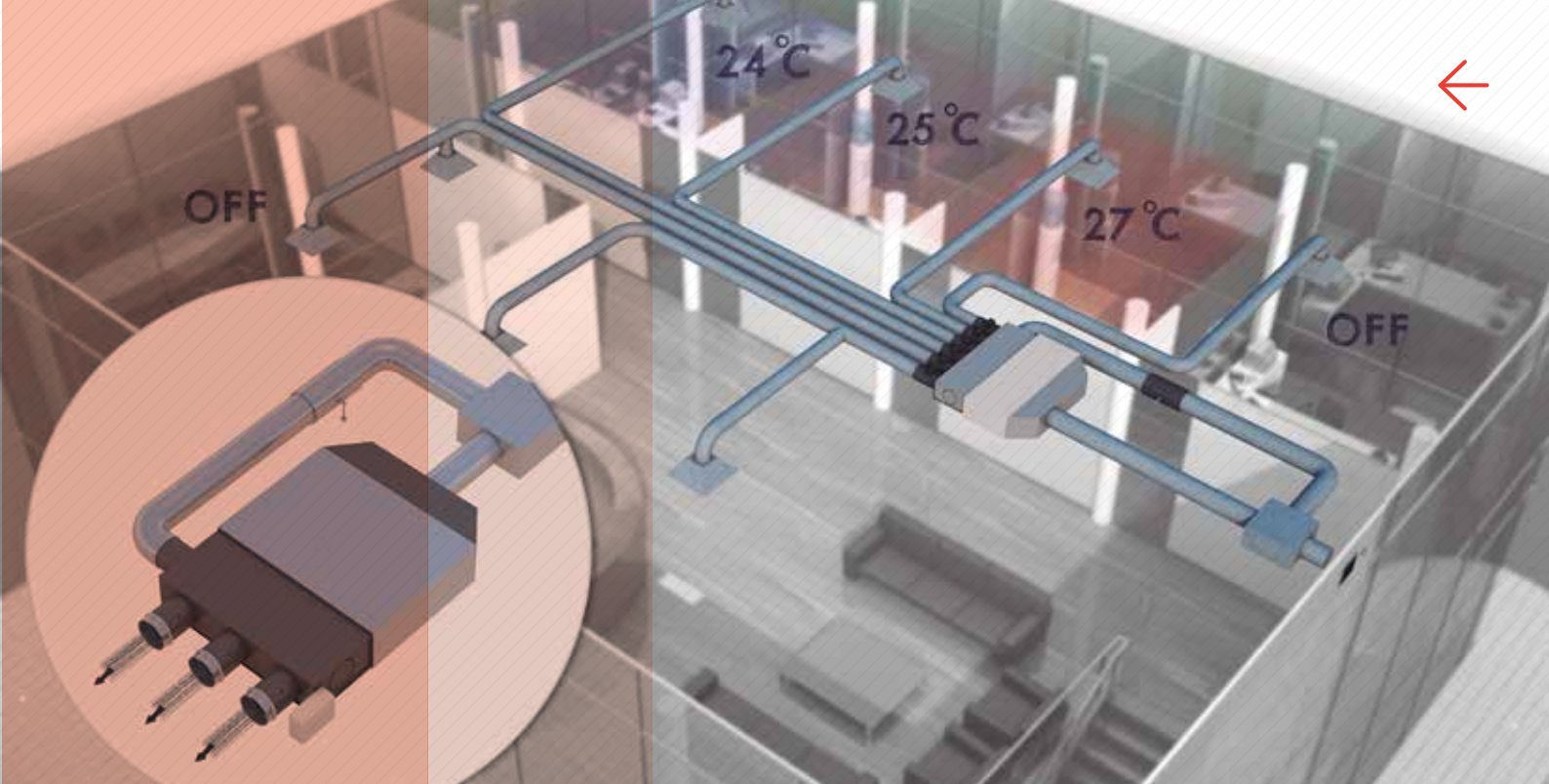
Specific control protocols for air-to-water systems.

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



Solutions



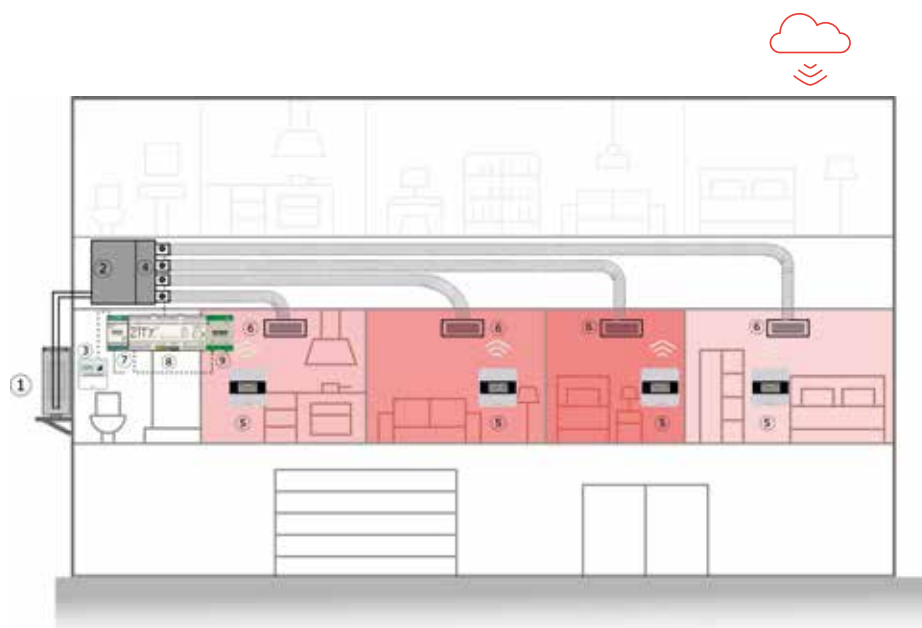


Zmartbox is the plug&play solution For any residential or commercial Air conditioning installation

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 Central Control Unit
4	ZmartBox	9	NETBOX Communication Interface
5	ZEUS Wireless Zone Thermostat		

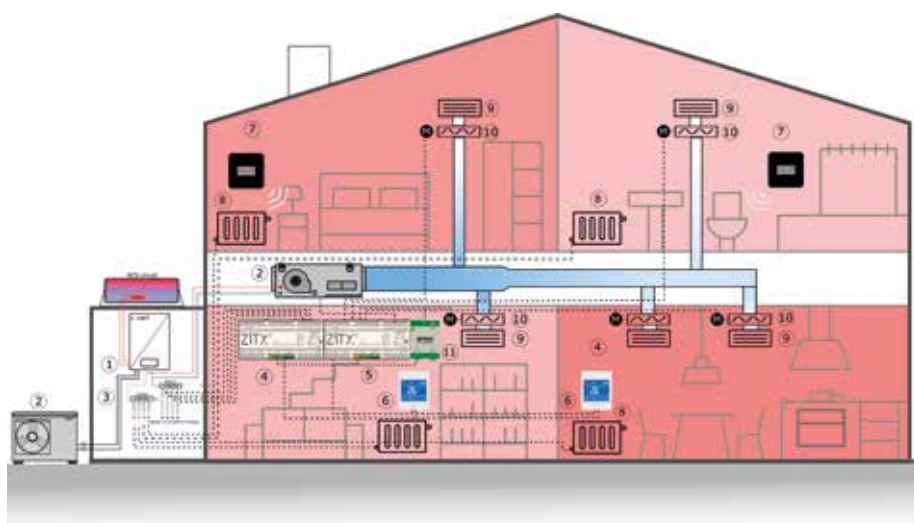


Combined air conditioning and heating

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** 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 -W (M) Master Control Unit	9	Motorized Zone Damper
5	ZITY -W/MC (M) Slave Control Unit	10	NETBOX Communication Interface

* For Wireless systems: Thermostats ZOE-RC and ZITU-RC/MC control panel



Air conditioning with inverter or conventional ducted fan-coil units

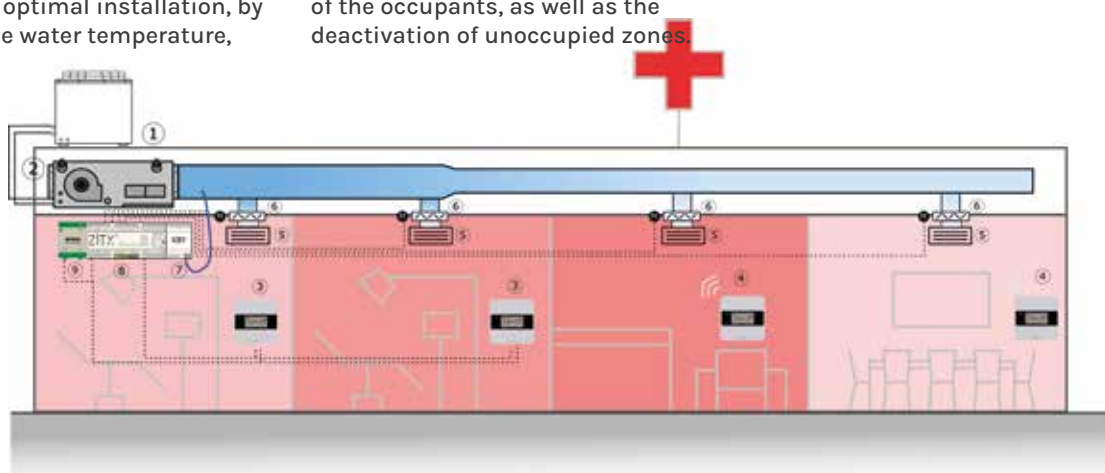
Zoning control for central air-conditioning installations where ducted fan-coil units (FCU) are used, either Inverter 0-10V units or conventional zones.

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** 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 Central Control Unit
4	Supply grille	8	NETBOX Communication Interface

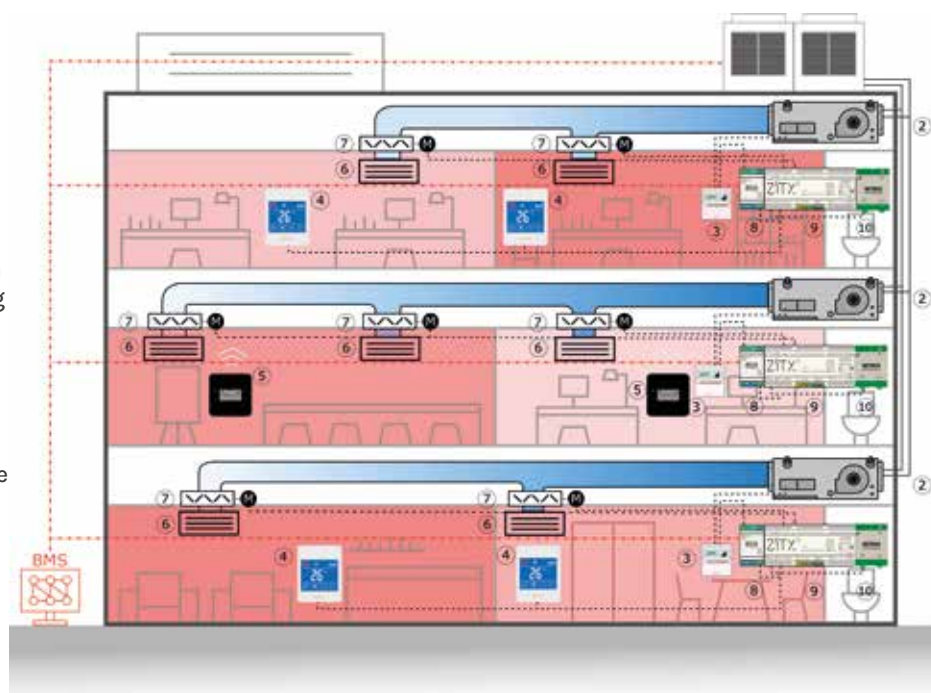


Full ducted multi-zone vrf installations, integrated in bms systems

The integration of VRF protocols in a new **ZITY** 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** system permits fast integration with building management systems.

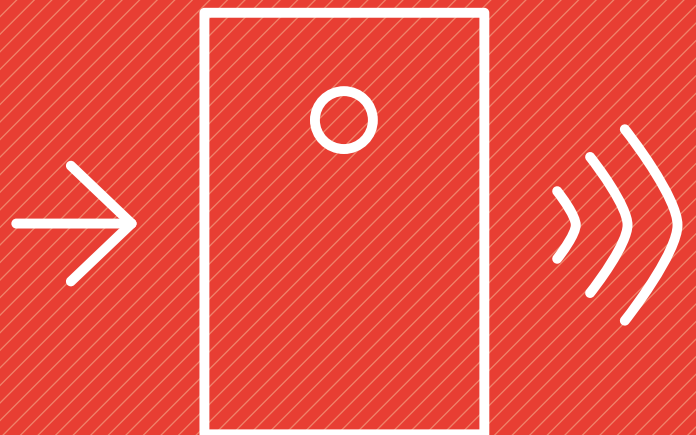
Specially conceived to use in office, commercial and public buildings where the VRF systems are commonly used.

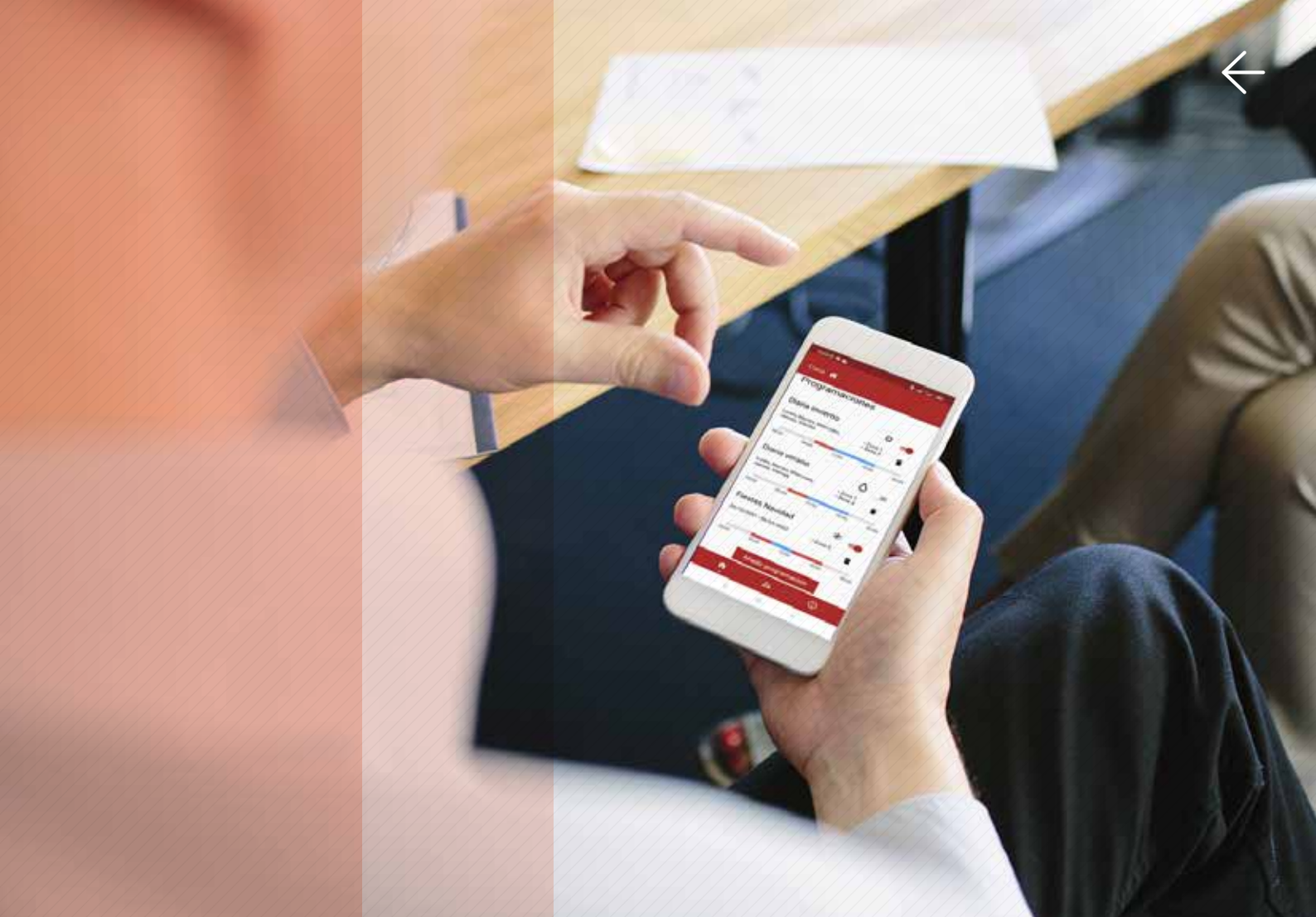


1	External VRF Unite	6	Supply Grille
2	Internal VRF Unit	7	Motorised Zone Damper
3	A/C Unit Control	8	A/C Machine Communication Interface
4	ZEBRA wired Zone Thermostat	9	ZITY Central Control Unit
5	ZEUS Wireless Zone Thermostat	10	NETBOX Communication Interface



Products





NETBOX New 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.



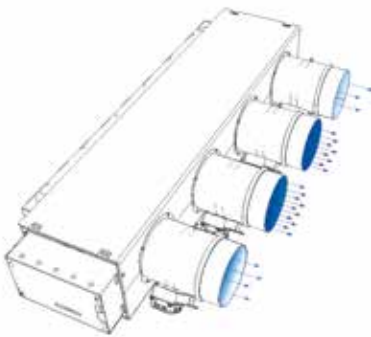
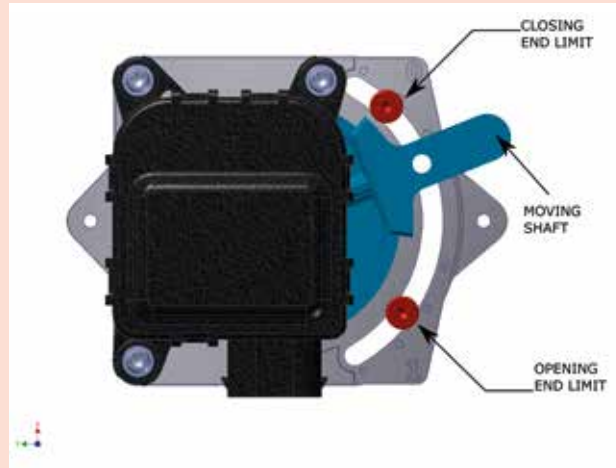


FLEXIFAN & FLEXIFLOW: Precise regulation.

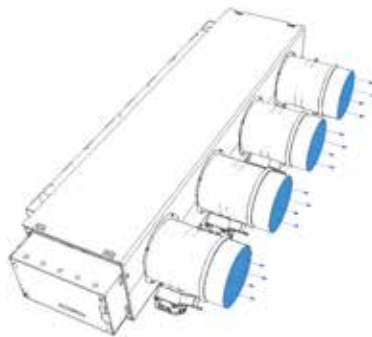
Regulating the airflow arriving in each room is essential to guarantee maximum comfort and energy efficiency from air conditioning systems. The Flexiflow & flexifan systems act either directly on the motorized damper of each zone (Flexiflow) and through the speed of the indoor unit fan (Flexifan).

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.



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.



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.

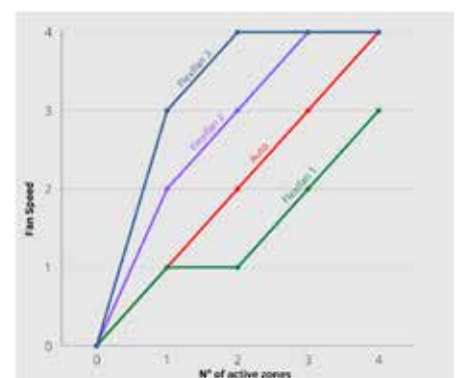
The Flexifan system changes the indoor unit fan operation patterns according to the number of zones requested. This makes it possible to adapt the zone system to the particularities of each installation:

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

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 includes a plenum PLZON, KSP central ,ZOE-RC master/slave thermostat, a communication interface with air conditioning unit (if requested) and By-pass damper if necessary.

The Zmartbox set comes fully wired, configured and ready to be installed on site. #PlugandPlay

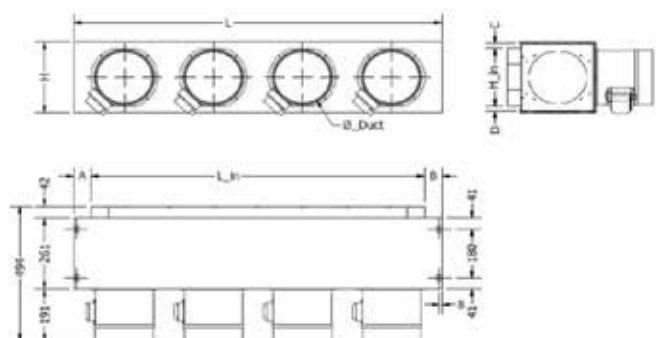
ZMARTBOX/DX Zoning Plug&play kit for direct expansion units
ZMARTBOX/FC Zoning Plug&play kit for fan-coil units

Plenum boxes to adapt to ducted units:

PLZON Plenum for ducted AHU for motorised and by pass dampers

PLMAC Plenum wit circular spigots for ducted AHU

Dimensions and configurations



Consult for other dimensions special configurations



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

Compatibilities



SKY AND VRV LINES



DOMESTIC, MR SLIM AND CITY MULTI LINES



FD AND HYPERMULTI LINES



DOMESTIC AND VRF LINES



DOMESTIC LINE



ECOI AND PACI LINES



NON-NASA VRF AND DOMESTIC



VRF
LINE



DOMESTIC AND VRF LINES



VRF LINE



COMERCIAL AND VRF LINES



DIGITAL INVERTER AND VRF LINES

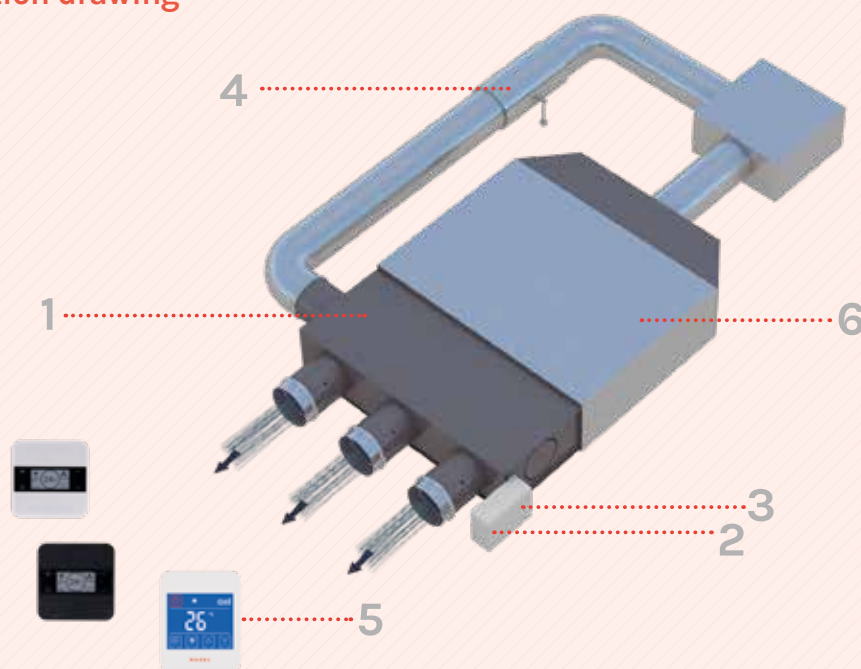


COMERCIAL AND VRF LINES





Typical installation drawing



1 PLZON



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

2 ZITY



ZITY 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 **chronothermostats**, to control the temperature in each of the zones. Weekly programming, blocking functionalities and limitation of setpoint temperatures.

6 DUCTED UNIT



Air conditioning ducted unit. Could be a direct expansion or an hydronic fan-coil unit. Consult for the compatibility of each brand and model.

* Not supplied by Madel.

ZITY

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



> Price-list p. 26

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 panels

ZITY-RC 2-6 zones radio controlled control panel

ZITY-W 2-6 zones wired control panel

Zone expansion modules

ZITY-W/ME 7-12 Expansion module from 7 to 12 zones

Control panel for combined installations

ZITY-RC/MC Wireless control panel for combined installations

ZITY-W/MC Wired control panel for combined installations

SLAVE control panels for centralized mode

(heating/cooling) installations

ZITY-RC/S Wireless control panel SLAVE configuration

ZITY-W/S Wired control panel SLAVE configuration

Implemented solutions

Direct expansion (DX)

- **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.

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

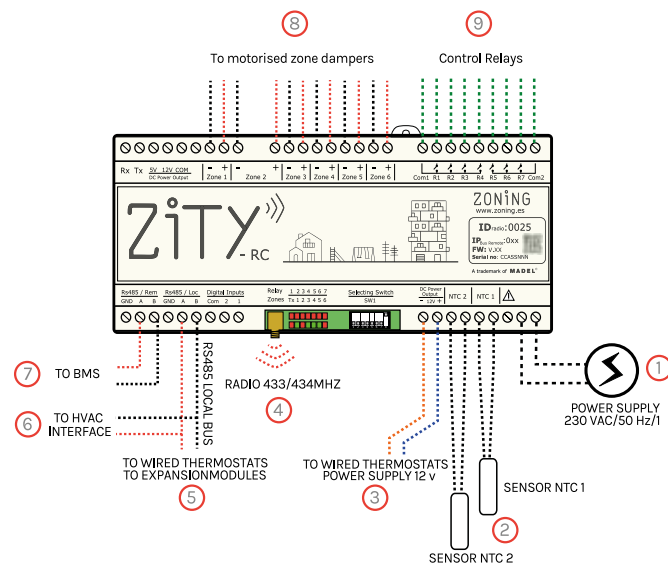
Combined

- **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.

FlexiFan

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 temperature 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 Control unit

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

ZITY/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



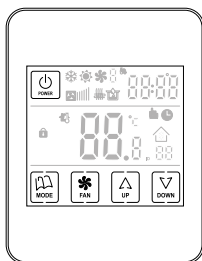
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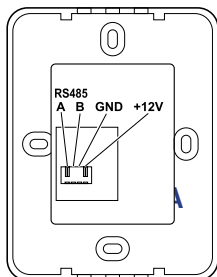
Wired (W) digital chrono-thermostat, to work in conjunction with the **ZITY** control platform. Two-way communication between the **ZITY** control unit and the thermostat. Integration of Master/Slave mode in the thermostat. No batteries required.

Features



- Individual temperature zone control
- ECO temperature mode
- ON/OFF of each zone and ON/OFF of the whole system (using Master thermostat)
- Fan-speed control
- Working mode control (Heat, cool, fan, dry)
- Weekly programming
- Blocking functionalities to avoid improper use
- Maximum and minimum set-point limits

Basic wiring diagram



- A12 VDC power supplied by the ZITY control panel.
- Modbus RTU communication with the ZITY control panel.

The connector is located in the rear part of the thermostat. See attached drawing.

Technical characteristics

- Power supply: 12 VDC
- Consumption: < 0.3 VA
- Control output: Modbus RTU Rs485
- Wiring S<1.5 mm²
- Operating temperature: 0 °C to 50 °C
- Storage temperature: -20 °C to 60 °C
- Humidity Range: 10-90% (no condensation)
- Wall mount with bolts (supplied)
- Protection grade: IP 20
- NTC10K Temperature sensor. Accuracy 0.1 °C
- Configurable control hysteresis +/-0.2 to 0.5 °C
- CA control accuracy according to Standard EN15500. CA=0.4 (Test report CLMS17-742. CSTB)
- Economy ECO mode (±3 °C setpoint temperature variation)
- Frost protection for T<7 °C+/-3 °C
- Dimensions (LxHxZ) 85x108x13 mm
- Weight 0.11 k

ZEUS

Digital Radio Thermostat
(RC)



> Price-list p. 26

ZEUS Digital Radio Thermostat (RC)

Digital chrono-thermostat via radio (RC), working with ZITY-RC control systems. Bi-directional Radio frequency communication via 433/434 Mhz. 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



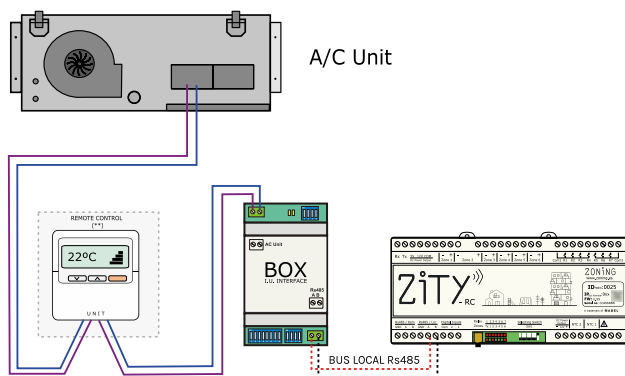
> Price-list p. 26

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.

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



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 °C to 60 °C
- Storage Temperature: -20 °C to 85 °C
- Storage Humidity: <95% RH, non-condensing
- Isolation voltage 1500 VDC
- Isolation resistance 1000 MΩ
- IP 20 isolation
- Net dimensions (DxWxH) 93x53x58mm
- Weight 85 g.

> 19

NETBOX

CLOUD communication gateways



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Communication gateway between the ZITY 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

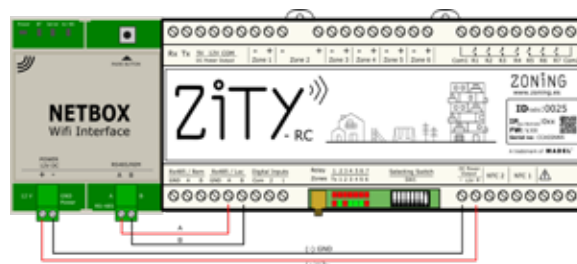


Features

- 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

- 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



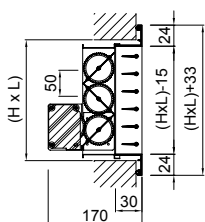
ZP-AZ

Motorized damper
for grilles

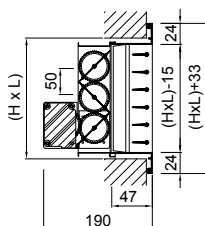


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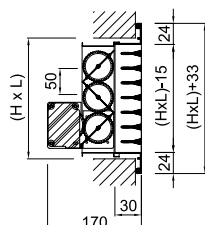
Motorized opposed blades volume damper (24 Vdc), suitable for **Zoning** grilles. Blades incorporates a PVC airtight joint. Constructed from aluminum, galvanized steel and gears from polyamide.



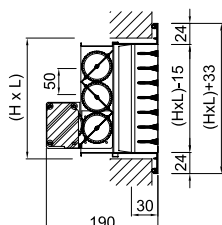
AMT-AN+ZP-AZ Damper with air supply single deflection grille from aluminium. Individually adjustable blades parallels to the largest side (L size).



CTM-AN+ZP-AZ Damper with air supply double deflection grille from aluminium. 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 aluminium. Fixed bars parallels to the largest side (L size).



LMT-DD+ZP-AZ Damper with air supply linear grille from aluminium. 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).

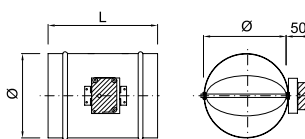
ZC/ZR/ZQ

Duct motorized damper



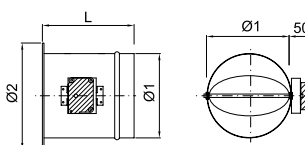
> Price-list p. 28

Motorized volume dampers (24 Vdc) suitable to control the air volume in ducts in Zoning.



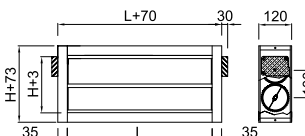
ZC Motorized circular damper. Constructed from galvanized steel and air tightness joint and bearings from rubber. Circular duct mounting.

	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

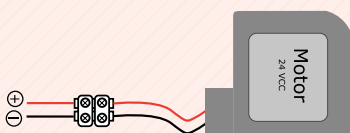


ZQ Motorized square damper with blades of 100 mm, parallels to the largest side (L size). Constructed from aluminum and gears from polyamide. Rectangular duct mounting.

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
Electronic pressure control

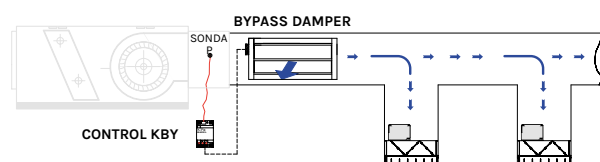


> Price-list p. 28

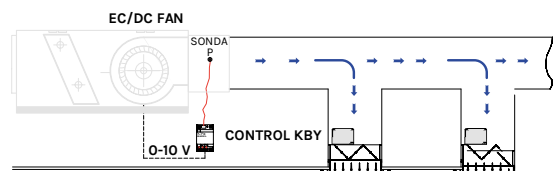
KBY pressure control module enables to set and maintain a constant pressure in a low and medium pressure duct network (20 to 300 Pa). The unit can act on a bypass damper (ZP-AZ, ZC/ZR/ZQ) by means of a 24 Vdc output or directly with a 0-10V output on an EC/DC fan, a frequency variator or a damper with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

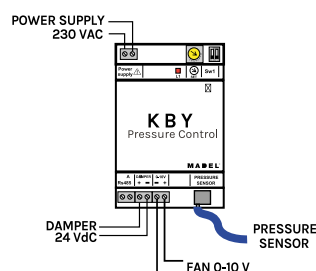
Pressure control on bypass damper



Pressure control on ec/dc fan



Basic wiring diagram



Technical caracteristics

- Power supply 230 Vca $\pm 10\%$, 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 $\pm 5\%$ with respect to set-point
- RS-485 communications bus
- Protection rating: IP 20

> 21

ZS/ZG/ZK

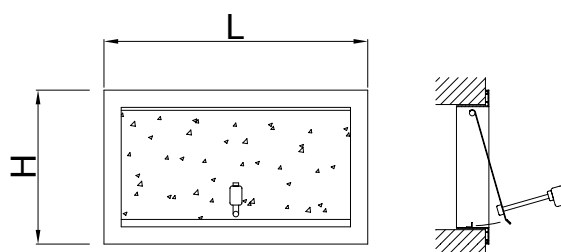
Mechanical by-pass dampers



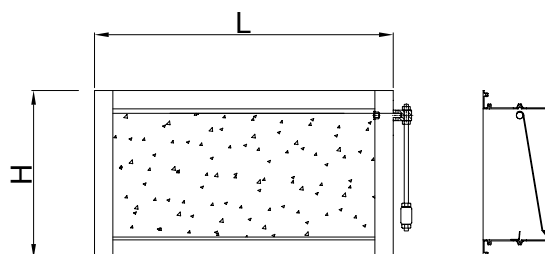
> Price-list p. 28

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.

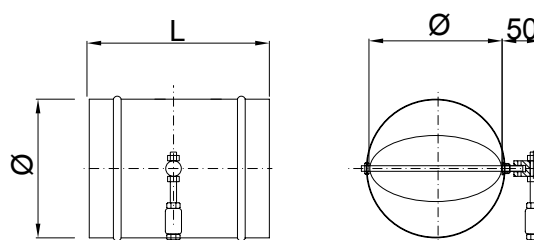
ZS Pressure damper for wall mounting by means of visible screws.



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



Price – List 1.22



ZMARTBOX

Plug & play zoning kit for direct expansion units

Kit Zoning plug and play. It consists of a distribution plenum motorized with all elements configured, ready to be installed on site. The thermostats are ordered separately since they do not have to coincide with the number of plenum connections.



Z

technical info at
www.zoning.eu

- Plug & play: Control unit and thermostats pre-configured in the factory.
- New Flexi-Flow system, to be able to adapt the flow rates in each of the outlets.
- Compact design (P < 500mm).
- Magneto thermic switch included to facilitate commissioning.
- Mobile electronic box to adapt to the installation requirements.
- Adaptable to most Indoor Units on the market.

Check compatibility in: <https://zmartsoft.zoning.eu>

ZmartBox-R Multi-zone via radio kit for direct expansion units. It includes control panel and interface. Does not include thermostats.

ZEUS-RC Master / Slave Zone Thermostat, communication via Radio.

ZmartBox-W Multi-zone wired kit for direct expansion units. It includes control panel and interface. Does not include thermostats.

ZEBRA-B Master / Slave Zone Thermostat, wired communication.

KIT	2 z	3 z	4 z	5 z	6 z
ZmartBox-R	1.214,73 €	1.325,77 €	1.439,67 €	1.549,80 €	1.663,61 €
ZmartBox-W	1.169,57 €	1.279,77 €	1.392,87 €	1.502,17 €	1.615,18 €

Thermostat	1 un
ZEUS-RC	138,91 €
ZEBRA-B	99,62 €

Diam. mm	ZBC	LxH mm	ZBR
150	37,11 €	200x160	37,11 €
200	39,47 €		

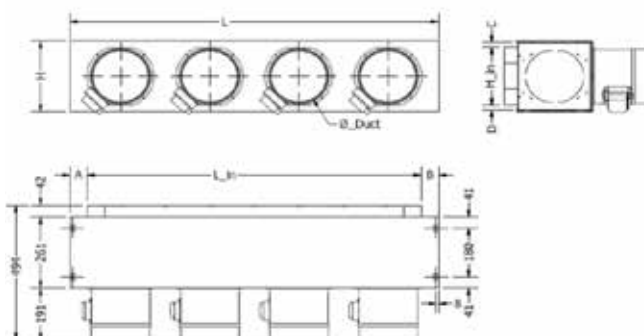
Interface	NETBOX
	264,00 €

ZBR / ZBC Rectangular and circular by-pass dampers (optional). Supplied separately from the Zmartbox. Prepared for assembly on site.

NETBOX Communication interface between the ZITY control panel and the CLOUD application of the Zoning system.

(SP) SUPPLEMENT FOR SPECIAL EXECUTION:

SP1	Different diameter connections (Dmax 200 mm):	70,49 €
SP2	Side connections (Dmax 200 mm):	70,49 €
SP3	Connections bigger than diam D200:	140,98 €



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

ZMARTBOX-FC

Plug & play zoning kit for fan-coil units

Kit Zoning plug and play. It consists of a distribution plenum motorized with all elements configured, ready to be installed on site. The thermostats are ordered separately since they do not have to coincide with the number of plenum connections.

technical info at
www.zoning.eu



- Plug & play: Control unit and thermostats pre-configured in the factory.
- New Flexi-Flow system, to be able to adapt the flow rates in each of the outlets.
- Compact design (P < 500mm).
- Magneto thermic switch included to facilitate commissioning.
- Mobile electronic box to adapt to the installation requirements.
- Adaptable to most Fan-coil units on the market.

Check compatibility in: <https://zmartsoft.zoning.eu>

ZmartBox-R-FC Multi-zone via radio kit for fan-coil units. It includes control panel and NTC temperature sensor. Does not include thermostats.

ZEUS-RC Master / Slave Zone Thermostat, communication via Radio.

Zmartbox-W-FC Multi-zone wired kit for direct fan-coil units. It includes control panel and NTC temperature sensor. Does not include thermostats.

ZEBRA-B Master / Slave Zone Thermostat, wired communication.

.../KBY Kit with electronic pressure control KBY + motorized damper ZC or ZQ

(SP) SUPPLEMENT FOR SPECIAL EXECUTION:

SP1	Different diameter connections (Dmax 200 mm):	70,49 €
SP2	Side connections (Dmax 200 mm):	70,49 €
SP3	Connections bigger than diam D200:	140,98 €

KIT	2 z	3 z	4 z	5 z	6 z
ZmartBox-R-FC	971,16 €	1.079,95 €	1.191,60 €	1.299,49 €	1.411,05 €
ZmartBox-W-FC	926,91 €	1.035,13 €	1.146,21 €	1.253,53 €	1.364,52 €
.../KBY	222,56 €	222,56 €	222,56 €	222,56 €	222,56 €

Thermostat	1 un
ZEUS-RC	138,91 €
ZEBRA-B	99,62 €

Interface	NETBOX
	264,00 €





PLZON&PLMAC

Distribution plenums boxes to adapt to the indoor air conditioning ducted units

PLZON: Motorized distribution plenum box, compatible with most duct A/C indoor units, direct expansion or fan coil.

Pre-wired motorized dampers and plenum box prepared for on-site assembly of the by-pass dampers.

PLMAC: Distribution plenum box, compatible with most duct A/C indoor units, direct expansion or fan coil.



PLZON



PLMAC

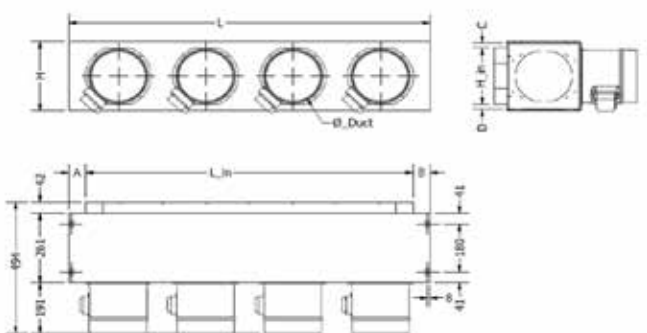
(SP) SUPPLEMENT FOR SPECIAL EXECUTION:

SP1	Different diameter connections (Dmax 200 mm):	70,49 €
SP2	Side connections (Dmax 200 mm):	70,49 €
SP3	Connections bigger than diam D200:	140,98 €

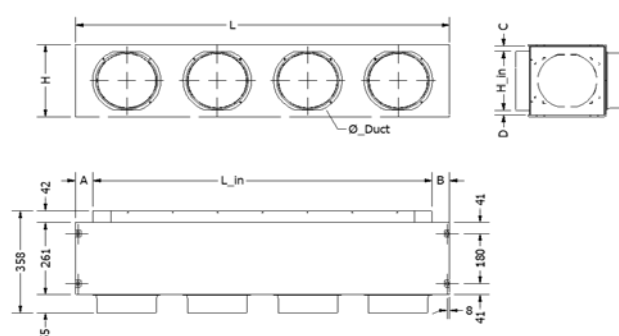
ZBR / ZBC Rectangular and circular by-pass dampers (optional). Supplied separately from the Zmartbox. Prepared for assembly on site.

Plenum	2 z	3 z	4 z	5 z	6 z
PLZON	380,41 €	473,06 €	565,71 €	647,46 €	739,02 €
PLMAC	162,41 €	187,48 €	206,01€	212,55 €	229,99 €

Diam. mm	ZBC	LxH mm	ZBR
150	37,11 €	200x160	37,11 €
200	39,47 €		



PLZON



PLMAC

LxH (mm)	L1	L2	L3	L4
H1 PLZON	750x200x494	1050x200x494	1250x200x494	1500x200x494
H2 PLZON	750x250x494	1050x250x494	1050x250x494	1500x250x494
H1 PLMAC	750x200x358	1050x200x358	1250x200x358	1500x200x358
H2 PLMAC	750x250x358	1050x250x358	1250x250x358	1500x250x358

CONTROL

Control panels, thermostats, interfaces and sensors

CONTROL PANELS



ZITY-RC 2-6 zones radio controlled control panel.

ZITY-W 2-6 zones wired control panel.

ZONE EXPANSION MODULES

ZITY-W/ME 7-12 Expansion module from 7 to 12 zones.

CENTRALES DE CONTROL PARA EQUIPOS COMBINADOS

ZITY-RC/MC Wireless control panel for combined installations.

ZITY-W/MC Wired control panel for combined installations.

SLAVE CONTROL PANELS FOR CENTRALIZED MODE (HEATING/COOLING) INSTALLATIONS

ZITY-RC/S Wireless control panel SLAVE configuration.

ZITY-W/S Wired control panel SLAVE configuration.

Central	
ZITY-RC	371,63 €
ZITY-W	328,09 €
ZITY-W/ME 7-12	328,09 €
ZITY-W/ME 13-18	328,09 €
ZITY-RC/MC	371,63 €
ZITY-W/MC	328,09 €
ZITY-RC/S	371,63 €
ZITY-W/S	328,09 €

CRONO-THERMOSTATS



ZEUS-RC/N/



ZEUS-RC/B/



ZEBRA-B

Thermostat	1 un
ZEUS-RC	138,91 €
ZEBRA-B	99,62 €



technical info at
www.zoning.eu

COMMUNICATION INTERFACES



DAIKIBOX For DAIKIN units.

MITBOX For Mitsubishi Electric units.

FUJIBOX For General-Fujitsu, Hiyasu and Fuji-electric units.

HEAVYBOX For Mitsubishi Heavy Industries units.

PANABOX For Panasonic commercial units.

PANABOX-DOMESTIC For Panasonic residential units.

TOSHIBOX For Toshiba units.

LGBOX For LG units.

HITABOX For Hitachi commercial units.

SAMBOX For Samsung, except NASA units.

NASABOX For Samsung NASA units.

MUNDOBOX For Mundoclima units.

KAYBOX For Kaysun units.

MIDEABOX For Midea units.

CARBOX For Carrier units.

MULTIBOX For con units with XYE.

GBOX For GREE units and OEM derivate.

REDBOX Interface for models with IR control (infrared)

NETBOX Communication interface between the

ZITY control panel and the CLOUD application of the Zoning system.

Interface	
BOX	267,71 €
REDBOX	383,35 €
NETBOX	264,00 €

NTC TEMPERATURE SENSOR

NTC 10K temperature sensor to use in installations without AHU interface, fan-coil or radiant water systems.

NTC10K	6,57 €

FA-12 Transformer / External 12V power supply.

Recommended in installations with ZEBRA wired thermostats and Netbox. Required as an option for certain communication gateways with the duct unit.

Consult the installation instructions.

FA-12	48 €

ACCESSORIES



technical info at
www.zoning.eu

ANTENNA 433/434 MHZ



ANTENA Antenna for radio reception 433/434 Mhz, suitable for ZITY control panels.

ANTENA	40,72 €

ANTENNA EXTENDER



ANTENNA EXTENDER 5 m extender for Zoning system antennas.

ANTENNA EXTENDER	53,55 €

WIND CABLE



CA Wind of 100 m of cable (red/ black 2 x 0,75) for the actuators connection.

CAB Wind of 100 m of shield cable (4 x 0,5) for ZEBRA thermostats.

CA	68,93 €
CAB	179,40 €

ELECTRICAL ENCLOSURE



CIP Insulating IP40 modular box with incorporated DIN rail. Allows to protect the control panels from dust and humidity in aggressive atmospheres.

CIP	68,07 €

SPARE PART MOTORS FOR DAMPERS



ZP MOTOR For motorised grilles dampers ZP-AZ.

ZC MOTOR For motorised circular dampers ZC.

ZQ MOTOR For motorised rectangular dampers ZQ.

ZP MOTOR	68,93 €
ZC MOTOR	68,93 €
ZQ MOTOR	65,59 €

KBY Pressure control Module (range 50 to 300 Pa). Calibration of pressure by turning a knob. Possible action on the actuators of ZQ or ZC dampers or directly with a 0-10V output to the EC type fans.

REGULACIÓN

Volume control and by-pass dampers

DUCT MOTORISED DAMPERS



ZC Motorised volume damper (24 Vdc) for circular duct, suitable to control the air volume in ZONING installations.

ZQ Motorised volume damper (24 Vdc) for rectangular duct, suitable to control the air volume in ZONING installations

.../AIS/ External isolation layer 5 mm for ZC dampers (supplement 15%)

Diam. mm	ZC	Q Min-Max (m³/h)
100	87,42 €	100 - 170
125	88,94 €	170 - 270
150	90,14 €	254 - 380
160	90,47 €	280 - 440
200	91,89 €	450 - 680
250	93,41 €	700 - 1100
315	96,36 €	1100 - 1680

L x H mm	ZQ	Q Min-Max (m³/h)
200x100	119,46 €	250 - 440
300x100	125,90 €	430 - 650
400x100	131,13 €	570 - 870
500x100	136,58 €	720 - 1100
600x100	141,81 €	850 - 1300
200x150	127,75 €	430 - 640
300x150	134,07 €	640 - 970
400x150	139,96 €	860 - 1295
500x150	145,84 €	1080 - 1600
600x150	151,73 €	1295 - 1940
200x200	135,92 €	570 - 870
300x200	142,35 €	860 - 1300
400x200	148,79 €	1150 - 1750
500x200	155,22 €	1440 - 2200
600x200	161,65 €	1700 - 2600
800x200	174,40 €	2300 - 3500

ELECTRONIC PRESSURE CONTROL



KBY Pressure control Module (range 50 to 300 Pa). Calibration of pressure by turning a knob. Possible action on the actuators of ZQ or ZC dampers or directly with a 0-10V output to the EC type fans.

KBY	142,98 €

Z

technical info at
www.zoning.eu

BY-PASS DAMPERS



ZK Pressure damper for circular duct mounting.

ZG Pressure damper for rectangular duct mounting.

ZS Pressure damper for wall mounting by means of visible screws.

Diam. mm	ZK	Q Min-Max (m³/h)
200	39,57 €	750 - 1000
250	39,02 €	1250 - 1500
315	42,84 €	1750 - 2000
355	45,78 €	2000 - 2500

L x H mm	ZG	Q un. interior (m³/h)
300x100	44,25 €	600 - 750
400x100	48,07 €	850 - 1000
500x100	51,88 €	1000 - 1250
400x150	49,70 €	1200 - 1500
500x150	53,52 €	1500 - 1750
400x200	51,12 €	1700 - 2000
500x200	55,15 €	2100 - 2500
500x250	56,79 €	2500 - 3000
500x300	58,53 €	3000 - 3500
600x250	60,93 €	3400 - 4000
600x300	62,46 €	3800 - 4500
2 un 500x200	110,31 €	4200 - 5000
2 un 600x200	118,27 €	4700 - 5500
2 un 500x250	113,69 €	5100 - 6000

L x H mm	ZS	Q un. interior (m³/h)
400x100	32,92 €	650 - 750
300x150	32,26 €	850 - 1000
400x150	33,03 €	1000 - 1250
500x150	34,88 €	1200 - 1500
400x200	33,90 €	1500 - 1750
450x200	35,10 €	1700 - 2000
600x200	37,17 €	2100 - 2500
500x250	36,84 €	2500 - 3000
600x250	38,48 €	3000 - 3500
600x300	39,79 €	3400 - 4000
2 un 500x200	71,61 €	3800 - 4500
2 un 600x200	74,56 €	4200 - 5000
2 un 500x250	73,79 €	4700 - 5500
2 un 600x250	76,95 €	5100 - 6000

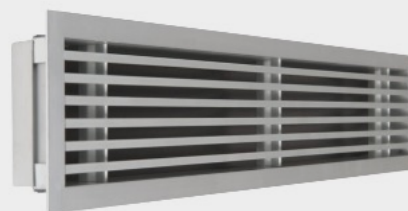
MOTORISED LINEAR GRILLES

Motorised linear grilles



technical info at
www.zoning.eu

Motorized volume dampers (24 Vdc) suitable to control the air volume in ducts in ZONING.



LMT Linear grille. Frame 24 mm.

LMT-MISS Linear grille. Frame 15 mm.

...-DD grille with adjustable rear blades, Shadowline effect parallels to the shortest side, in black colour.

ACCESSORIES

ZP-AZ Motorised damper (24 Vdc) for grilles.

CM Mounting frame from galvanised steel. (delivered separately in 4 linear elements)

CSS Mounting frame for MISS models, from galvanised steel (delivered separately in 4 linear elements)

PLAZ Plenum box circular connection: see page PLAZ

PLRE Plenum box elliptical connection: see page PLRE

FIXING

(S) Clips. It requires mounting frame CM.

(T) Visible screws (supplement 1,14 €)

(Ø) Hidden screw. It requires mounting frame. Incompatible with ZP-AZ damper (supplement 3,06 €)

FINISHES

M9016 Painted in white bright similar to RAL 9016.

AA Matt silver anodised (supplement 1%)

RAL... Painted in other RAL colours :To consult.

L x H mm	LMT M9016	LMT-DD M9016	LMT-MISS M9016	MISS-DD M9016	ZP-AZ	CM	CSS	Q Min (m³/h)	Q Max (m³/h)
200x100	15,41 €	20,66 €	16,58 €	22,27 €	88,49 €	2,46 €	2,46 €	70	120
250x100	16,60 €	22,68 €	17,54 €	24,05 €	88,77 €	2,65 €	2,65 €	90	150
300x100	17,90 €	25,28 €	18,69 €	26,50 €	89,06 €	2,81 €	2,81 €	110	190
400x100	20,13 €	29,28 €	21,14 €	30,71 €	89,69 €	3,10 €	3,10 €	150	250
500x100	22,41 €	33,34 €	23,12 €	34,43 €	90,28 €	3,36 €	3,36 €	190	320
600x100	27,66 €	40,92 €	27,94 €	41,75 €	90,92 €	3,83 €	3,83 €	240	390
700x100	30,56 €	46,11 €	30,50 €	46,61 €	178,78 €	4,52 €	4,52 €	280	450
800x100	33,46 €	51,33 €	33,22 €	51,70 €	179,37 €	4,87 €	4,87 €	320	520
1000x100	41,42 €	62,89 €	40,45 €	62,64 €	180,56 €	5,86 €	5,86 €	400	650
200x150	18,82 €	25,09 €	19,52 €	26,31 €	90,94 €	2,61 €	2,61 €	120	210
250x150	20,43 €	27,70 €	20,93 €	28,75 €	91,40 €	2,76 €	2,76 €	160	260
300x150	22,15 €	30,99 €	22,43 €	31,86 €	91,78 €	2,93 €	2,93 €	200	340
400x150	25,21 €	36,30 €	25,65 €	37,34 €	92,84 €	3,24 €	3,24 €	260	440
500x150	28,37 €	41,71 €	28,42 €	42,40 €	93,82 €	3,52 €	3,52 €	340	550
600x150	35,56 €	51,78 €	34,98 €	52,09 €	94,78 €	3,95 €	3,95 €	410	670
700x150	39,32 €	58,34 €	38,31 €	58,27 €	184,67 €	4,64 €	4,64 €	490	770
800x150	43,06 €	64,87 €	41,82 €	64,64 €	185,67 €	4,98 €	4,98 €	560	900
1000x150	53,99 €	80,40 €	51,72 €	79,41 €	187,64 €	5,96 €	5,96 €	710	1120
200x200	22,18 €	29,44 €	22,50 €	30,41 €	93,40 €	2,73 €	2,73 €	170	280
250x200	24,24 €	32,72 €	24,33 €	33,48 €	94,05 €	2,91 €	2,91 €	220	370
300x200	26,68 €	36,99 €	26,51 €	37,53 €	94,69 €	3,07 €	3,07 €	370	450
400x200	30,54 €	43,61 €	30,41 €	44,30 €	96,03 €	3,36 €	3,36 €	360	600
500x200	34,59 €	50,36 €	34,00 €	50,66 €	97,30 €	3,67 €	3,67 €	460	760
600x200	43,53 €	62,71 €	42,15 €	62,53 €	97,98 €	4,09 €	4,09 €	560	910
700x200	48,16 €	70,63 €	46,25 €	70,05 €	190,75 €	4,78 €	4,78 €	650	1050
800x200	52,79 €	78,52 €	50,55 €	77,70 €	192,06 €	5,13 €	5,13 €	750	1200
1000x200	66,64 €	98,06 €	63,08 €	96,33 €	194,60 €	6,10 €	6,10 €	950	1540

MOTORISED AIR SUPPLY GRILLES

Motorised air supply grilles

Z

technical info at
www.zoning.eu

Supply grilles with motorized damper (24 Vdc) to install in a ZONING system.



AMT-AN Single deflection grille.

CTM-AN-SL16 Double deflection grille. M9016 finish, Shadowline effect, rear blades in black colour.

ACCESSORIES

ZP-AZ Motorised damper (24 Vdc) for grilles.

CM Mounting frame from galvanised steel. (delivered separately in 4 linear elements)

PLAZ Plenum box circular connection: see page PLAZ

PLRE Plenum box elliptical connection: see page PLRE

FIXING

(S) Clips. It requires mounting frame CM.

(T) Visible screws (supplement 1,14 €)

(Ø) Hidden screw. It requires mounting frame. Incompatible with ZP-AZ damper (supplement 3,06 €)

FINISHES

M9016 Painted in white bright similar to RAL 9016.

AA Matt silver anodised (supplement 1%)

RAL... Painted in other RAL colours :To consult.

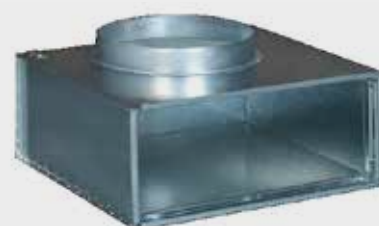
L x H mm	AMT-AN M9016	CTM-AN SL16	ZP-AZ	CM	Q Min (m³/h)	Q Max (m³/h)
200x100	9,77 €	14,77 €	88,49 €	2,46 €	110	180
250x100	10,79 €	16,63 €	88,77 €	2,65 €	140	220
300x100	11,90 €	18,81 €	89,06 €	2,81 €	160	270
350x100	14,02 €	21,73 €	89,39 €	2,93 €	190	320
400x100	14,45 €	22,89 €	89,69 €	3,10 €	230	370
450x100	16,86 €	25,71 €	90,01 €	3,26 €	250	410
500x100	17,33 €	26,74 €	90,28 €	3,36 €	270	450
600x100	21,33 €	33,26 €	90,92 €	3,83 €	330	540
700x100	24,86 €	39,72 €	178,78 €	4,52 €	400	640
800x100	27,68 €	45,21 €	179,37 €	4,87 €	450	730
200x150	11,97 €	17,85 €	90,94 €	2,61 €	170	280
250x150	12,74 €	19,39 €	91,40 €	2,76 €	210	350
300x150	14,04 €	21,99 €	91,78 €	2,93 €	260	420
350x150	16,50 €	25,68 €	92,33 €	3,05 €	300	490
400x150	17,03 €	27,17 €	92,84 €	3,24 €	330	540
450x150	19,88 €	30,61 €	93,31 €	3,36 €	390	640
500x150	20,27 €	32,10 €	93,82 €	3,52 €	440	700
600x150	24,21 €	37,78 €	94,78 €	3,95 €	540	870
700x150	29,60 €	47,37 €	184,67 €	4,64 €	620	1000
800x150	32,39 €	53,82 €	185,67 €	4,98 €	710	1160
200x200	14,52 €	20,86 €	93,40 €	2,73 €	230	380
250x200	16,15 €	23,72 €	94,05 €	2,91 €	290	480
300x200	17,76 €	26,97 €	94,69 €	3,07 €	360	580
350x200	20,28 €	30,66 €	95,38 €	3,20 €	420	680
400x200	21,07 €	32,55 €	96,03 €	3,36 €	480	780
450x200	24,50 €	36,74 €	96,67 €	3,54 €	540	880
500x200	25,21 €	38,30 €	97,30 €	3,67 €	610	980
600x200	29,35 €	44,96 €	97,98 €	4,09 €	730	1190
700x200	36,57 €	57,73 €	190,75 €	4,78 €	870	1370
800x200	39,70 €	64,33 €	192,06 €	5,13 €	1000	1600

PLAZ

plenum boxes for grilles

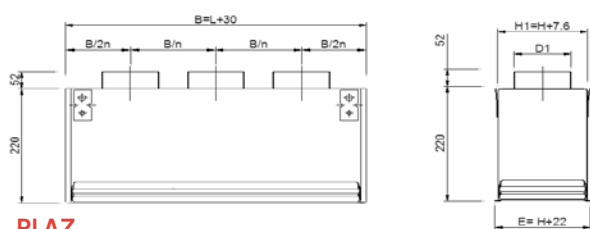


technical info at
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Plenum boxes with circular connection, made from galvanized steel.

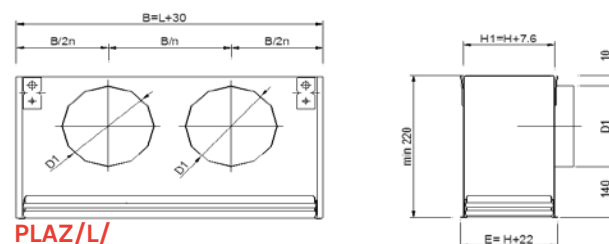
PLAZ Upper connection plenum box H = 220 mm.
Suitable for grilles with fixing by clips (S) and hidden screw (O). Suitable for wall and ceiling mounting.



PLAZ

.../L/ Plenum box of lateral connection.

.../AIS/ Internal thermoacoustic insulation (35% supplement)



PLAZ/L/

L x H mm	PLAZ	Vfree = Vk/3 un/diam	L x H mm	PLAZ /L7	Vfree = Vk/3 un/diam
200x100	42,82 €	1/98	200x100	42,82 €	1/123
250x100	44,49 €	1/98	250x100	44,49 €	1/123
300x100	47,60 €	1/98	300x100	47,60 €	1/158
350x100	48,90 €	1/98	350x100	48,90 €	1/158
400x100	50,70 €	1/98	400x100	50,70 €	1/158
450x100	53,20 €	1/98	450x100	53,20 €	1/198
500x100	54,82 €	1/98	500x100	54,82 €	1/198
600x100	58,36 €	2/98	600x100	55,48 €	1/198
700x100	61,53 €	2/98	700x100	61,53 €	2/198
800x100	64,85 €	2/98	800x100	64,85 €	2/198
1000x100	71,35 €	2/98	1000x100	71,35 €	2/198
200x150	45,31 €	1/123	200x150	45,31 €	1/158
250x150	48,54 €	1/123	250x150	48,54 €	1/198
300x150	50,57 €	1/123	300x150	50,57 €	1/198
350x150	51,97 €	1/123	350x150	51,97 €	1/198
400x150	53,93 €	1/123	400x150	53,93 €	1/198
450x150	55,67 €	1/123	450x150	55,67 €	1/198
500x150	57,37 €	1/123	500x150	57,37 €	1/198
600x150	62,29 €	2/123	600x150	62,29 €	2/198
700x150	65,65 €	2/123	700x150	65,65 €	2/198
800x150	69,19 €	2/123	800x150	69,19 €	2/198
1000x150	76,06 €	2/123	1000x150	76,06 €	2/198
200x200	48,51 €	1/198	200x200	48,51 €	1/198
250x200	50,43 €	1/198	250x200	50,43 €	1/198
300x200	52,49 €	1/198	300x200	52,49 €	1/198
350x200	56,08 €	1/198	350x200	56,08 €	1/198
400x200	58,13 €	1/198	400x200	58,13 €	1/248
450x200	60,03 €	1/198	450x200	60,03 €	1/248
500x200	61,89 €	1/198	500x200	61,89 €	1/248
600x200	65,90 €	1/198	600x200	65,90 €	1/248
700x200	69,45 €	1/198	700x200	79,60 €	2/198
800x200	73,20 €	1/198	800x200	83,89 €	2/198
1000x200	88,42 €	2/198	1000x200	88,42 €	2/248



PLRE & PLME

elliptical plenum boxes for grilles

Plenum boxes with elliptical connection, made from galvanized steel.

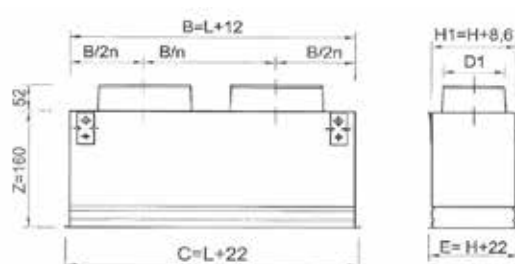


PLRE Upper connection plenum for AMT, CTM and LMT series grilles. Suitable for wall and ceiling mounting.

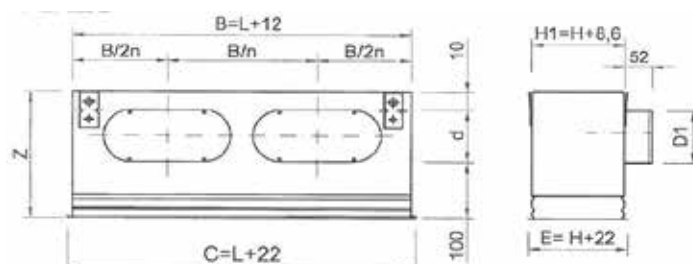
PLME Upper connection plenum for LMT-MISS grilles. Suitable for wall and ceiling mounting.

.../L/ Plenum box of lateral connection.

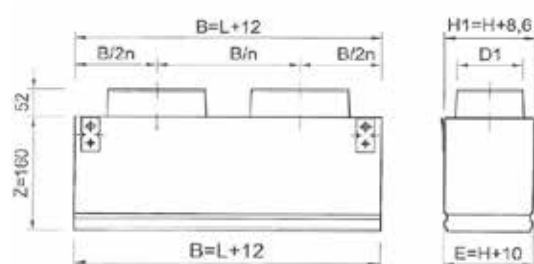
.../AIS/ Internal thermoacoustic insulation (35% supplement)



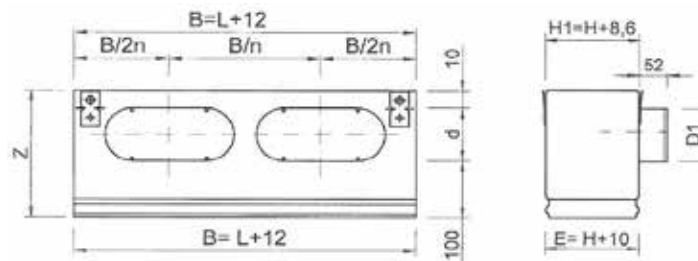
PLRE



PLRE/L/



PLME



PLME/L/

Ø D1	d	Z
123	96	206
148	96	206
158	96	206
198	96	206
248	146	256



PLRE & PLME

L x H mm	PLRE PLME	PLRE/AIS/ PLME/AIS/	Vfree=Vk un/diam.	PLRE/L/ PLME/L/	PLRE/L/AIS/ PLME/L/AIS/	Vfree=Vk un/diam.
200x100	41,16 €	55,57 €	1/123	41,13 €	55,52 €	1/123
250x100	42,63 €	57,56 €	1/123	42,63 €	57,55 €	1/123
300x100	44,97 €	60,71 €	1/158	44,23 €	59,71 €	1/158
350x100	46,08 €	62,21 €	1/158	45,38 €	61,26 €	1/158
400x100	47,59 €	64,24 €	1/158	46,95 €	63,39 €	1/158
450x100	49,34 €	66,62 €	1/198	49,42 €	66,71 €	1/198
500x100	50,71 €	68,45 €	1/198	50,86 €	68,66 €	1/198
600x100	57,13 €	77,13 €	1/198	57,75 €	77,97 €	1/198
700x100	79,30 €	107,05 €	2/198	76,32 €	103,03 €	2/198
800x100	82,18 €	110,94 €	2/198	83,28 €	112,42 €	2/198
900x100	85,05 €	114,82 €	2/198	86,27 €	116,47 €	2/198
1000x100	87,80 €	118,53 €	2/198	89,20 €	120,42 €	2/198
200x150	42,84 €	57,84 €	1/148	42,70 €	57,65 €	1/148
250x150	43,97 €	59,37 €	1/158	44,83 €	60,52 €	1/158
300x150	45,97 €	62,06 €	1/158	46,95 €	63,39 €	1/198
350x150	47,13 €	63,62 €	1/198	48,17 €	65,03 €	1/198
400x150	48,72 €	65,77 €	1/198	49,86 €	67,31 €	1/198
450x150	50,14 €	67,68 €	1/198	51,38 €	69,37 €	1/198
500x150	51,55 €	69,60 €	1/198	52,89 €	71,40 €	1/198
600x150	72,56 €	97,96 €	2/198	75,56 €	102,01 €	2/198
700x150	80,89 €	109,20 €	2/198	81,72 €	110,33 €	2/198
750x150	82,42 €	111,26 €	2/198	85,31 €	115,17 €	2/198
800x150	83,92 €	113,30 €	2/198	88,88 €	119,99 €	2/198
900x150	86,85 €	117,25 €	2/198	92,03 €	124,25 €	2/198
1000x150	89,69 €	121,08 €	2/198	95,11 €	128,40 €	2/198
200x200	43,20 €	58,33 €	1/148	45,28 €	61,13 €	1/148
250x200	44,76 €	60,43 €	1/158	46,95 €	63,39 €	1/158
300x200	46,49 €	62,75 €	1/198	48,77 €	65,84 €	1/198
350x200	47,65 €	64,33 €	1/198	51,10 €	68,98 €	1/198
400x200	49,29 €	66,54 €	1/198	52,87 €	71,38 €	1/198
450x200	50,74 €	68,49 €	1/198	54,47 €	73,54 €	1/198
500x200	52,27 €	70,57 €	1/198	56,12 €	75,76 €	1/198
600x200	64,37 €	86,90 €	2/198	68,34 €	92,26 €	2/198
700x200	73,94 €	99,82 €	2/198	82,50 €	111,38 €	2/198
750x200	75,52 €	101,95 €	2/198	86,15 €	116,31 €	2/198
800x200	77,08 €	104,06 €	2/198	89,79 €	121,21 €	2/198
900x200	87,97 €	118,76 €	2/198	97,76 €	131,97 €	2/198
1000x200	93,17 €	125,78 €	2/198	101,59 €	137,15 €	2/198



DMT

Fixed blades return grilles

Air return grilles with fixed blades at 45° constructed from aluminium.



DMT



DMT-FY

DMT-AR Grille with blades parallels to the largest side.

EMT-AR Grille with blades parallels to the shortest side.

DMT-FY DMT-FY Grille with blades parallels to the largest side with EN779 G3 filter

EMT-FY Rejilla de aletas paralelas a la dimensión menor (cota H) con filtro clase G3 según norma EN 779.

ACCESSORIES

SP Opposed blades volume damper from electro-zinc steel, in black colour.

PFT Filter box constructed from galvanised steel with filter K/8 class EN 779 G3.

CM Mounting frame from galvanised steel.
(Supplied in 4 stringers to mount on site)

FIXING

(S) Clips. It requires mounting frame CM.

(O) Hidden screw. It requires mounting frame CM. Not compatible with FY models.
(supplement 2,81 €)

FINISHES

AA Matt silver anodised.

M9016 Painted in white similar to RAL 9016.

RAL Painted in other RAL colours :To consult.

L x H mm	DMT-AR	EMT-AR	DMT-FY	EMT-FY	SP	CM	Q Min (m³/h)	Q Max (m³/h)
200x100	10,93 €	12,31 €	22,23 €	-	6,82 €	2,46 €	55-120	160
250x100	12,51 €	13,70 €	24,03 €	-	7,76 €	2,64 €	70-140	190
300x100	13,33 €	15,78 €	25,04 €	-	9,16 €	2,81 €	80-185	230
350x100	15,00 €	17,25 €	26,96 €	-	10,46 €	2,93 €	90-200	260
400x100	16,09 €	19,15 €	28,29 €	-	11,50 €	3,12 €	110-230	310
450x100	17,30 €	21,18 €	29,65 €	-	12,75 €	3,26 €	125-260	350
500x100	18,53 €	23,33 €	31,18 €	-	13,82 €	3,36 €	140-300	390
200x150	13,36 €	14,09 €	25,10 €	-	7,46 €	2,60 €	85-175	230
250x150	14,86 €	15,88 €	26,92 €	-	8,61 €	2,76 €	110-220	300
300x150	15,86 €	18,26 €	28,23 €	-	10,04 €	2,93 €	130-270	360
350x150	18,01 €	20,03 €	30,67 €	-	11,16 €	3,05 €	150-315	420
400x150	18,60 €	22,25 €	31,62 €	-	12,31 €	3,24 €	170-360	475
450x150	20,85 €	24,62 €	34,19 €	-	13,45 €	3,36 €	195-410	550
500x150	21,60 €	27,11 €	35,26 €	-	14,81 €	3,52 €	225-455	605
300x200	18,90 €	20,75 €	31,92 €	33,74 €	10,74 €	3,09 €	175-365	490
350x200	21,60 €	23,01 €	35,00 €	36,43 €	11,91 €	3,21 €	210-430	580
400x200	22,41 €	25,57 €	36,29 €	39,44 €	13,11 €	3,36 €	235-500	660
450x200	25,17 €	28,29 €	39,41 €	42,55 €	14,37 €	3,54 €	270-560	750
500x200	26,23 €	31,28 €	40,81 €	45,93 €	15,81 €	3,67 €	300-620	830
600x200	33,71 €	35,58 €	49,19 €	51,03 €	18,30 €	4,09 €	360-750	1010
400x300	30,66 €	31,95 €	46,09 €	47,38 €	15,04 €	3,75 €	360-760	1010
500x300	36,68 €	39,74 €	53,32 €	56,41 €	18,18 €	4,01 €	460-960	1275
600x300	45,22 €	45,49 €	63,00 €	63,25 €	21,02 €	4,47 €	560-1160	1540

DMT-KLIN

accessible fixed blades return grilles

Air return grilles with fixed blades at 45°, with hinged removable core without tools, by pressing on the invisible

PUSH fasteners. KLIN system allows for the easy access to the grille that conforms with the regulations required for maintenance of HVAC installations. Constructed from aluminium.



DMT-KLIN Air return grille with fixed blades.

ACCESSORIES

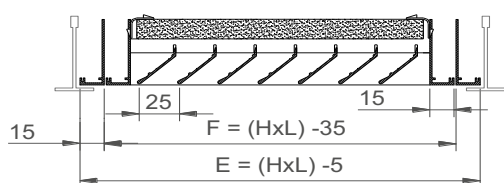
PFT Filter type K/8 class EN 779 G3.

PLK Plenum box with an upper connection.

...-R Air flow damper in the spigot.

.../L/ Lateral connection.

.../AIS/ Thermo-acoustical insulation (supplement 35%)



DMT-KLIN / DMT-KLIN+PFT

L x H	E	F
600 x 300	595 x 295	565 x 265
625 x 313	620 x 308	605 x 278
675 x 338	670 x 330	640 x 300
600 x 600	595 x 595	565 x 565
625 x 625	620 x 620	605 x 605
675 x 675	670 x 670	640 x 640

FIXING

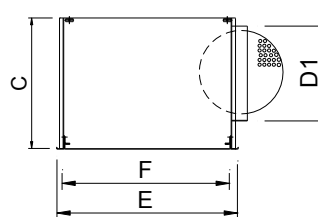
1) Support brackets to hang from the ceiling.

FINISHES

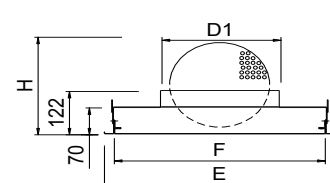
M9016 Painted in white similar to RAL 9016 shiny.

R9010 Painted in white RAL 9010 semi-matt.

RAL . . Painted in other RAL colours :To consult.



PLK/L/...-R



PLK...-R

H ó L (nominal)	E	F	D1	H	C
600 x 300	595 x 295	565 x 265	198	353	320
625 x 313	620 x 308	605 x 278	198	353	320
675 x 338	670 x 330	640 x 300	198	353	320
600 x 600	595 x 595	565 x 565	313	353	435
625 x 625	620 x 620	605 x 605	313	353	435
675 x 675	670 x 670	640 x 640	313	353	435

L x H mm	DMT-KLIN	Lwa1< 35 dB(A) m3/h	Lwa1< 45 dB(A) m3/h	DMT-KLIN+PLK	Lwa1< 35 dB(A) m3/h	Lwa1< 45 dB(A) m3/h
600x600	95,84 €	1100-2300	3145	144,70 €	2370	3160
625x625	102,17 €	1200-2500	3400	151,84 €	2465	3290
675x675	116,01 €	1400-2900	3900	168,55 €	2665	3550
600x300	64,67 €	560-1150	1500	106,20 €	560	1500
625x313	68,42 €	620-1250	1700	111,74 €	620	1565
675x338	76,70 €	700-1450	1900	121,20 €	700	1685

L x H mm	PLK	PLK-R	PLK/L/	PLK/L/-R	PFT
600x600	48,85 €	67,57 €	66,42 €	82,71 €	26,59 €
625x625	49,67 €	68,44 €	67,58 €	83,92 €	28,83 €
675x675	52,54 €	68,84 €	70,77 €	87,07 €	33,40 €
600x300	41,53 €	57,80 €	60,00 €	76,29 €	18,97 €
625x313	43,32 €	59,61 €	61,81 €	77,95 €	20,62 €
675x338	44,49 €	60,78 €	63,60 €	79,77 €	24,05 €

DFZ-R

air return accessible perforated face diffusers

Square perforated face diffusers to be used in air return, with hinged removable core without tools, by pressing on the invisible PUSH fasteners. KLIN system allows for the easy access to the diffuser that conform with the required regulations for maintenance of HVAC installations. Constructed from galvanised steel.



DFZ-R Four-Way return diffuser.

ACCESSORIES

PFT K/8 class EN 779 G3 filter.

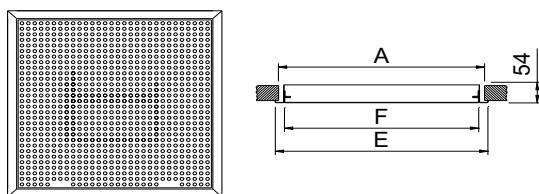
PLK Upper connection diffuser.

...-R Air flow damper in the spigot.

.../L/ Lateral connection.

.../AIS/ Thermo-acoustical insulation (supplement 35%)

DFZ-R



	E	A	F
300	295	269	265
400	295	369	365
500	495	469	465
600	595	569	565
625	620	594	590
675	670	644	640

L x H	E	F
600 x 300	595 x 295	565 x 265
675 x 338	670 x 333	640 x 303
1200 x 300	1195 x 295	1165 x 265
1200 x 600	1195 x 595	1165 x 565
1350 x 338	1345 x 333	1315 x 303
1350 x 675	1345 x 670	1315 x 640

FIXING

1) Suspended at the false ceiling.

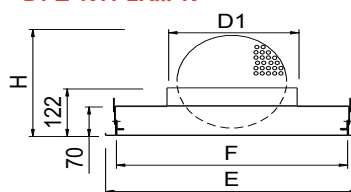
FINISHES

M9016 Painted in white similar to RAL 9016 Shiny.

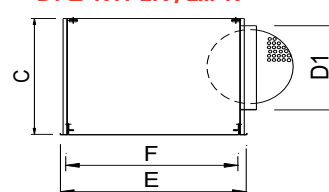
R9010 Painted in white RAL 9010 Semi-matt.

RAL . . Painted in other RAL colours :To consult.

DFZ-R+PLK...-R



DFZ-R+PLK /L...-R



H ó L (nominal)	E	F	D1	H	C
300 x 300	295 x 295	265 x 265	123	353	280
400 x 400	395 x 395	365 x 365	198	353	320
500 x 500	495 x 495	465 x 465	248	353	370
600 x 600	595 x 595	565 x 565	313	353	435
625 x 625	620 x 620	590 x 590	313	353	435
675 x 675	670 x 670	640 x 640	313	353	435
600 x 300	595 x 295	565 x 265	198	353	320
675 x 338	670 x 333	640 x 303	198	353	320
1200 x 300	1195 x 295	1165 x 265	2/198	353	320
1200 x 600	1195 x 595	1165 x 565	2/313	353	435
1350 x 338	1345 x 333	1315 x 303	2/198	353	320
1350 x 675	1345 x 670	1315 x 640	2/313	353	435

L x H mm	DFZ-R	DFZ-R-PFT	PLK	PLK-R	PLK/L/	PLK/L/-R	Lwa1 <35 dB(A) m3/h	Lwa1=45 dB(A) m3/h
300	33,84 €	57,82 €	35,01 €	47,84 €	47,83 €	60,17 €	108-180	210
400	38,43 €	64,27 €	37,31 €	53,15 €	52,60 €	66,14 €	230-390	460
500	46,64 €	74,31 €	41,67 €	58,95 €	55,74 €	70,49 €	360-600	720
600	52,96 €	84,33 €	48,85 €	67,57 €	66,42 €	82,71 €	540-900	1080
625	59,59 €	91,88 €	49,67 €	68,44 €	67,58 €	83,92 €	540-900	1080
675	61,79 €	95,97 €	52,54 €	68,84 €	70,77 €	87,07 €	540-900	1080
600x300	44,18 €	63,13 €	41,53 €	57,80 €	60,00 €	76,29 €	270-450	540
675x338	46,92 €	70,96 €	44,49 €	60,78 €	63,46 €	79,77 €	270-450	540
1200x300	65,31 €	92,16 €	48,85 €	67,57 €	66,42 €	82,71 €	540-900	1080
1200x600	85,68 €	125,54 €	73,28 €	89,57 €	99,62 €	116,40 €	1080-1800	2160
1350x338	70,64 €	104,05 €	52,54 €	68,84 €	70,77 €	87,07 €	540-900	1080
1350x675	102,37 €	152,50 €	78,81 €	95,14 €	106,14 €	122,43 €	1080-1800	2160

ZUR

air return unit

Air return unit formed by a grille with G3 class filter, frontally accessible and an isolated plenum with circular connections. Aluminium grilles and plenum box made from galvanized steel.

Kit designed to be mounted on a false ceiling.



Z

technical info at
www.zoning.eu

ZUR-R Unit with egg-crate grille. Square netting inclined at 45°.

ZUR-D Unit with fixed blades at 45°.

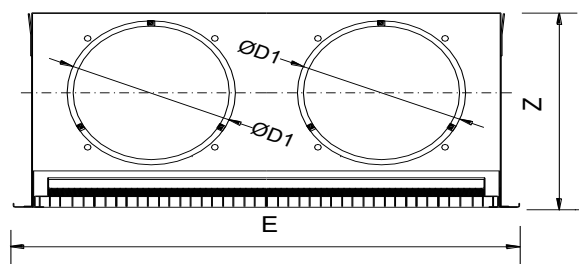
FIXING

1) Suspended at the false ceiling.

FINISHES

M9016 Painted in white bright similar to RAL 9016.

RAL... Painted in other RAL colours :To consult.



LxH	E	F	Z	D1
600 x 600	595	595	270	198
488 x 438	483	433	310	198

L x H mm	ZUR-R	Lwa1 < 35 dB(A) m3/h	Lwa1 < 45 dB(A) m3/h	L x H mm	ZUR-D	Lwa1 < 35 dB(A) m3/h	Lwa1 < 45 dB(A) m3/h
488x438	215,13 €	885-1950	2595	488x438	206,69 €	649-1355	1855
600x600	250,09 €	1500-3300	4400	600x600	235,80 €	1100-2300	3145



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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MADEL reserves the right to alter the characteristics and sizes of the products contained in this catalogue without warning.



ZONiNG

the smart decisions leads to happiness

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