DUCTZONE
HVAC SOFTWARE

EXAMPLE_RETAIL

RETAIL (MULTIZONING SOLUTION FLEXA 3.0)

AIRZONE

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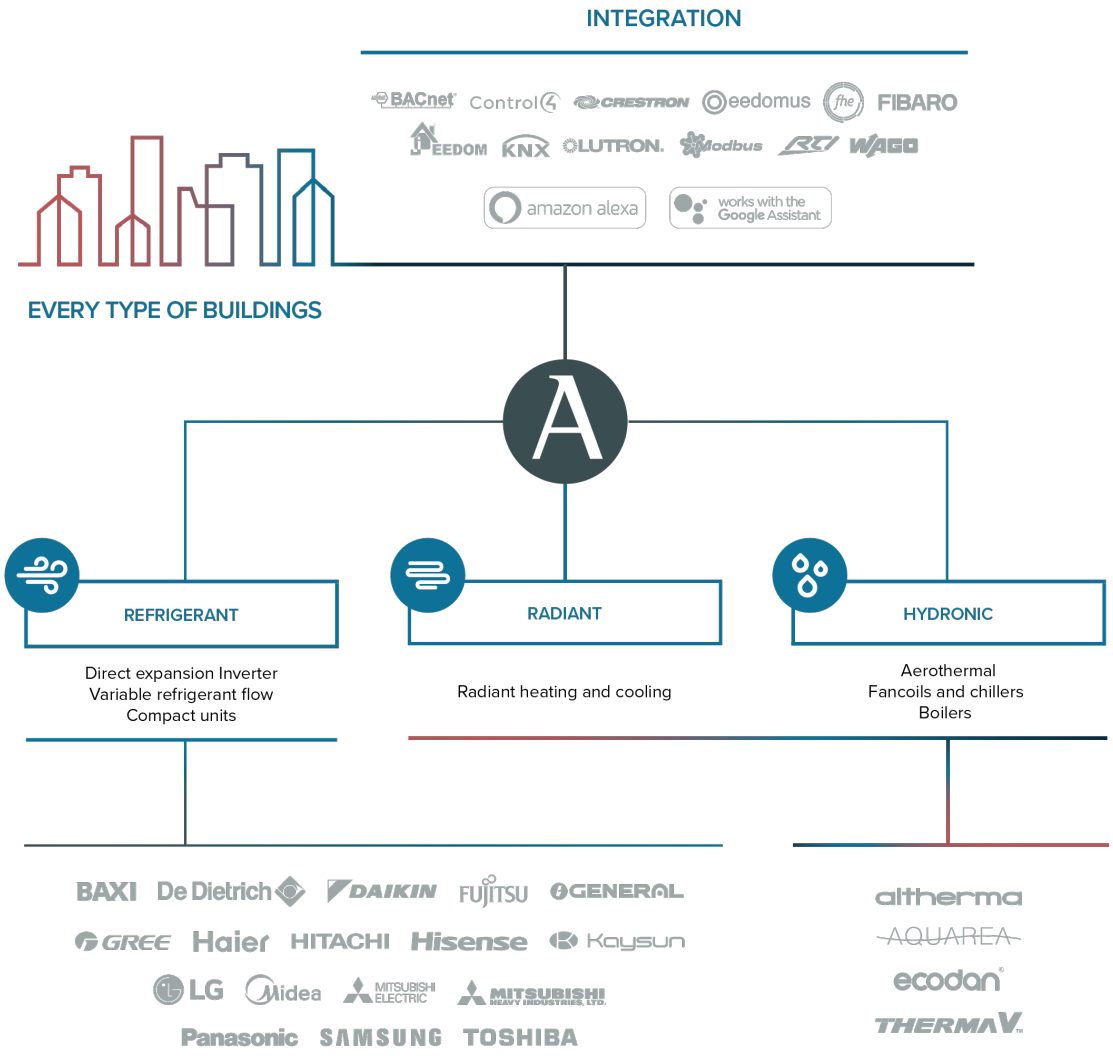
Index

Airzone, Smart Climate Control

Airzone is the world leader in smart climate control systems. With over 20 years of experience, it is one of the most prestigious companies in the HVAC industry. Airzone systems allow the user to control different types of technologies and integrate underfloor heating systems.

ALL AIRZONE SYSTEMS CAN BE COMBINED INTO THE SAME PROJECT, INTEGRATED WITH OTHER CONTROL SYSTEMS AND ALSO CONTROLLED REMOTELY.



If you have any questions, please contact us at projects@airzonecontrol.com and our Projects Department will help you with everything you need.

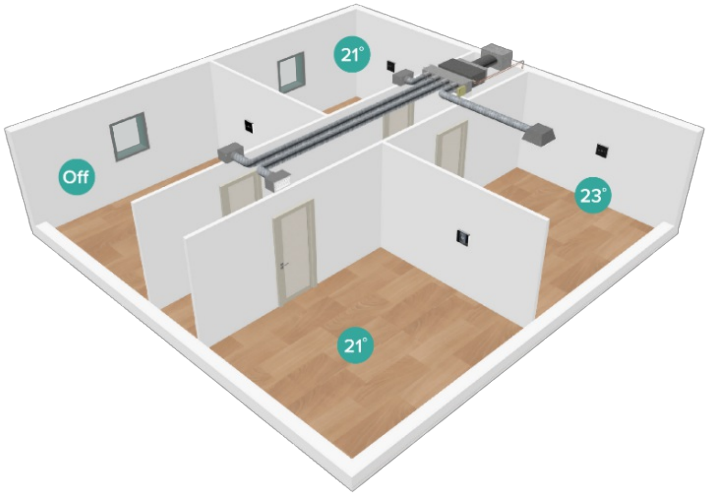
	Easyzone	Flexa 3.0
Single split	✓	✓
Multi-split	✓	✓
VRF (heat pump)	✓	✓
VRF (heat recovery)		
Fancoil (2 pipes)	✓	✓
Underfloor heating	✓	✓

The concept of smart control by Airzone

The smart control performed by our systems allows the user to achieve an optimal level of thermal and acoustic comfort as **every single zone is controlled independently**.

Airzone controllers manage the entire installation and favor a more rational use of energy.

We offer numerous possible combinations so that our solutions can be adapted to the needs of the user and the installation.



An Airzone Integrated Zoning System transforms a traditional ducted HVAC system into a multizone system, basing its operation on two main factors:

- **Optimization** of the HVAC system in energy use.
- Providing the highest thermal comfort range to every zone.

Integrated zoning systems allow to increase energy savings as well as diminish first costs. This happens by means of the communications between Inverter units and zoning system, as well as efficiency algorithms.

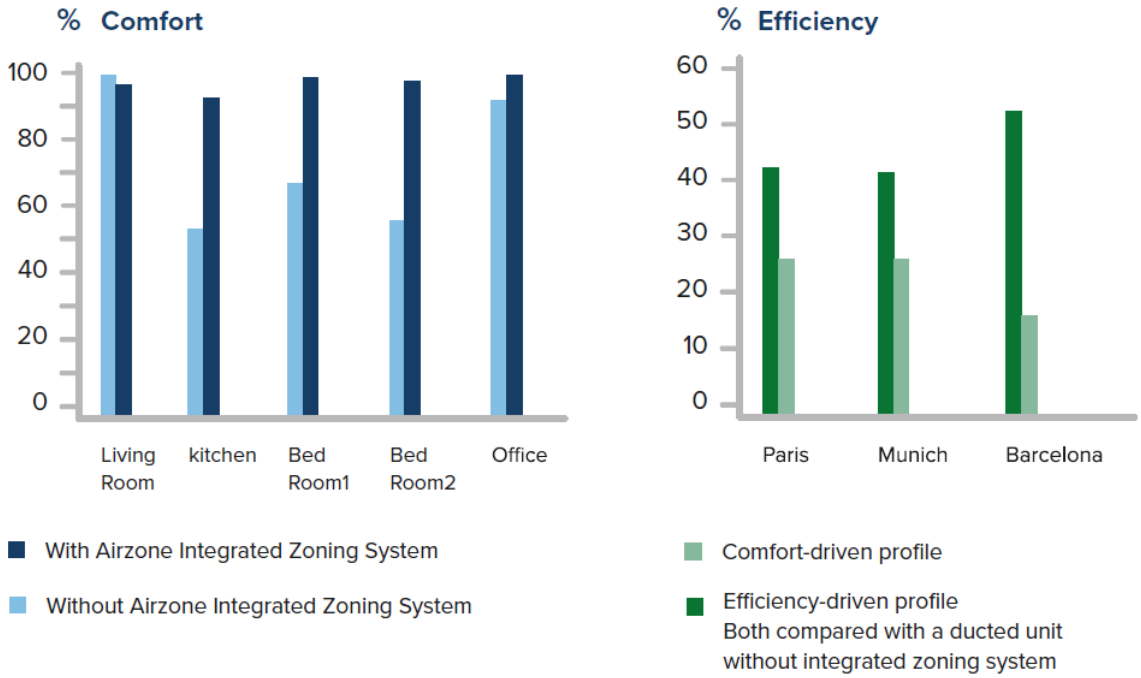
It allows to individually control the temperature of every zone conditioned by the same ducted indoor unit. This occurs thanks to the communications that exist between the sensors installed on each zone and the motorized elements installed on ducts. Therefore, the system covers only the thermal load of those zones where both thermal demand and occupancy exist.

Zoning systems

The Integrated Zoning System developed by **Airzone allows to regulate the air flow** supplied to each airconditioned zone and may satisfy the thermal needs of each one of them. In addition, it includes several efficiency algorithms which **by controlling Inverter heat pumps** (operation mode, set point temperature, fan speed, etc.) **optimizes energy usage**.

These facts generate an **increase both in comfort** during many hours and in **energy savings** as can be seen in the following figures extracted from an independent study from the Energy

Researching Group of the University of Malaga, Spain, with the title “Report over the Airzone integrated zoning model and its comparison to a non-zoned system”.



Quality assurance

Our commitment to the highest quality is our hallmark. We design, develop and produce all our products. They are environmentally friendly and they comply with all the international directives in terms of energy efficiency.

- Certificate of electromagnetic compatibility
- Certificate of electrical safety
- Certificate of radio frequency
- US FCC certificate
- Intertek 4008862 UL Listed
- ISO Certificates: 9001 and 14001

For further information about our certifications, please contact us at projects@airzonecontrol.com

eu.bac certification

The accuracy of control of Airzone solutions has been certified by the European Building Automation and Controls Association (license number 215562). The certified accuracy is 0.3°C **for both cooling and heating**. This certification confirms the high level of performance of Airzone systems, highlighting them as a great option for projects which pursue a high level of efficiency.

215562

BREEAM

BREEAM(Building Research Establishment Environmental Assessment Methodology) is a system of assessing, rating and certifying the sustainability of buildings. Using this system, buildings are given an overall score based on an objective evaluation.

The BREEAM ratings range from Acceptable to pass, Good, Very Good, Excellent to Outstanding. BREEAM evaluates 10 categories, and Airzone can improve the score in the following categories:

- Management: "Sustainable Management"
- Health and Wellbeing: "Thermal Comfort" and "Thermal Zoning"
- Energy: "Energy efficiency"
- Pollution: "GWP refrigerant – Building facilities"
- Innovation: "Exemplary level in Energy efficiency and Sustainable management"

For further information, please visit www.breeam.com.

LEED

LEED (Leadership in Energy and Environmental Design) is a system for assessing environmental performance in the construction or renovation of buildings, which aims to achieve a rational and effective use of energy of materials and water.

In LEED you can reach four levels: Certificate, Silver, Gold and Platinum. This certification method evaluates buildings according to 8 criteria and Airzone can obtain extra points in the following categories:

- Energy and atmosphere: "Optimization of energy efficiency" and "Energy consumption measurement"
- Indoor environmental quality: "Thermal Comfort"
- Innovation in design: "Optimization of energy efficiency"

For further information, please visit https://new.usgbc.org/leed.

Energy consumption optimization

To achieve a high degree of comfort and reduce energy consumption, the communication between the control system and AC unit is required to be perfect. **The Airzone communication gateway®** is the device that enables this bi-directional communication, improving fundamental features of the operation of the AC units.

Thanks to **the Airzone communication gateway®**, Inverter/VRF systems **work in partial load most of the time**, resulting in the optimization of their performance. Our systems modify the Partial Load Ratio (PLR) by adjustingthe set-point temperature of the AC unit based on the

return temperature, boosting the performance of the unit. Thanks to this optimization of the energy consumption, zoned AC units can save up to **53% more than non-zoned Inverter AC units**.

Airzone communications gateways® are compatible with most AC units of the main manufacturers in the HVAC industry.

Effective control

Airzone has developed a series of energy-efficiency algorithms that improve the energy performance of the installation. Additionally, they offer multiple benefits to both installers and users.

Eco-Adapt algorithm

Airzone systems allow you to limit the highest and lowest set-point temperature both in cooling and heating. Whether it is from the Airzone Cloud webserver or from the Airzone Blueface thermostat, the user can choose among the different Eco-Adapt modes, depending on the desired limit temperatures, to optimize the energy consumption and save money.

Smart control for the whole installation

The user can perform a complete and effective control of the installation thanks to our interfaces, either from our state-of-the-art thermostats or remotely using the Airzone Cloud webserver.

Our interfaces allow the user to control the temperature, set schedules, change the operating mode or refer to the weather information, among many other features.

BMS Integration

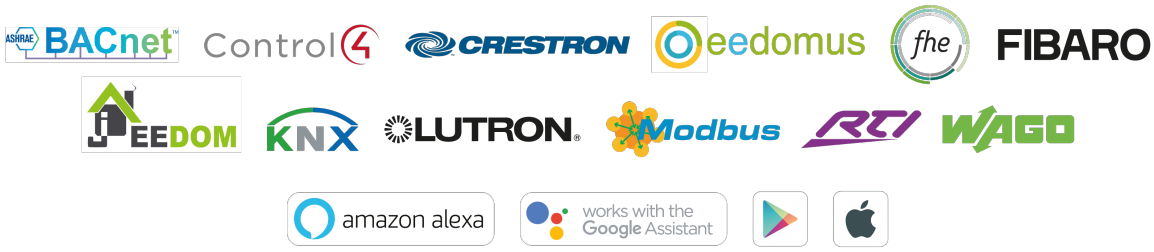
Our Communication with building management control systems is carried out using the **Modbus RTU native protocol**.

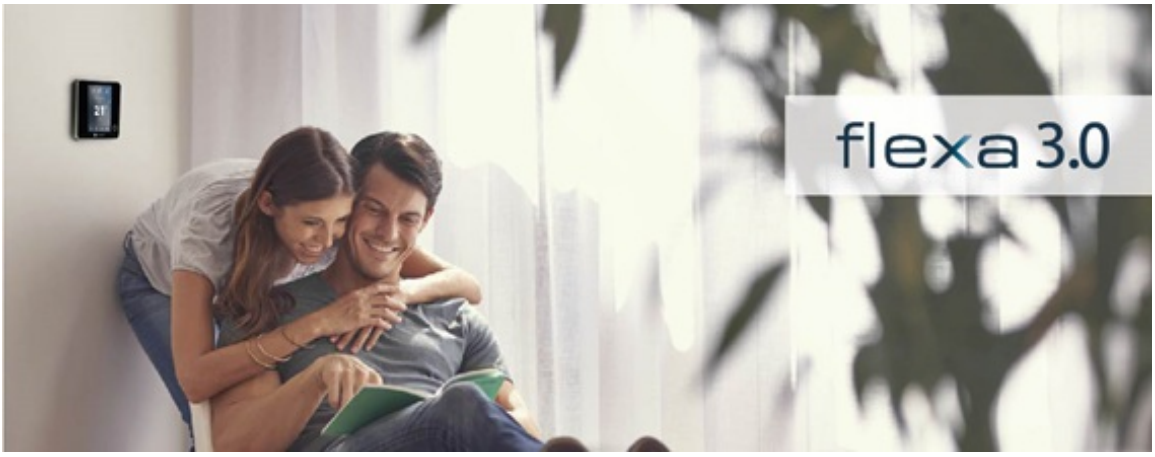
We can apply Airzone control to other home and building automation systems, thanks to the

development of integration gateways that use different protocols such **as BACnet and KNX**, as well as enable communication with other open protocols, such as **LonWorks**.

In order to continue to offer fully integrated solutions, we work directly with integrated building management companies. An example is our collaboration with **Wago and Lutron**.

Users with an Airzone Cloud webserver connected to their systems will be able to enjoy voice control functionalities, using **Amazon Alexa or Google Assistant**.





Flexa 3.0, Centralized System

FLEXA 3.0 is the ideal system controlling centralized units in both residential and tertiary installations. It is compatible with Inverter/VRF units and hydronic units. Besides, it enables you to control your radiant zoned heating thanks to the radiant control module.

System Features

- Individual control of up to 8 zones.
- Integrated control of direct-expansion units and ducted fan coils.
- Eco-Adapt energy efficiency algorithm.
- Q-Adapt algorithm for flow distribution.
- Input configurable as supplementary probe or remote start-stop system.
- Compatible with production control board.
- Control output configurable for the activation of supplementary boilers.
- Notifications of the AC unit errors on Airzone Thermostats.

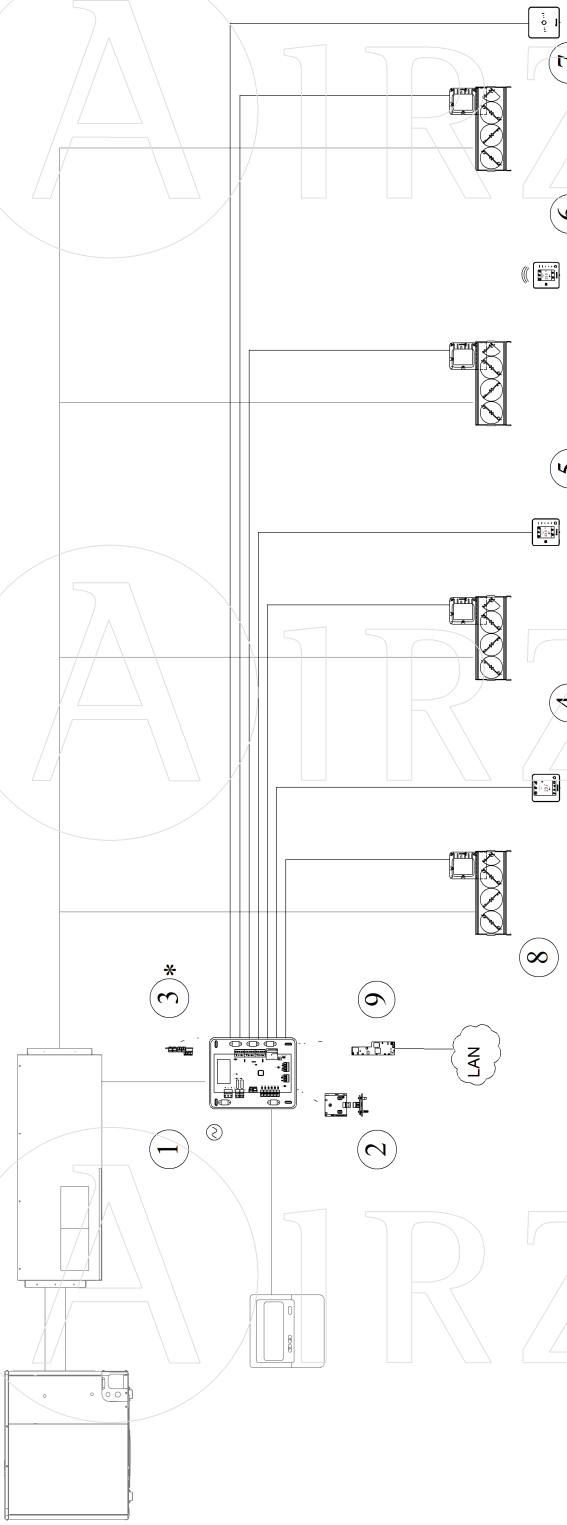
Features by Zone

- Configuration of the operating modes.
- Proportional control of the dampers.
- One thermostat per zone to control the air conditioning and radiant elements.

For more technical information please visit *http://myzone.airzonecontrol.com/*

Connection scheme

ZONED INVERTER UNIT-UP TO 8Z



Airzone Bus Cable

Airzone RN Cable

Element with independent power supply

For more technical information: http://myzone.airzonecontrol.com/

①	AZCE6FLEXA3	Airzone Flexa 3.0 main control board 6z
②	AZX6GTC[XXX] / AZX6QADAPT3[XXX]	Airzone [Manufacturer] Communication gateway
③	AZCE6EXP8Z	Expansion module of 8 zones Airzone * Necessary only forinstallations with 7 or 8 zones
④	AZCE6BLUEFACEC[B/N]	Airzone Blueface color Thermostat wired 8Z [white/black]
⑤	AZCE6THINKC[B/N]	Airzone Think monochrome Thermostat wired 8Z [white/black]
⑥	AZCE6THINKR[B/N]	Airzone Think monochrome Thermostat wireless 8Z [white/black]
⑦	AZCE6LITEC[B/N]	Airzone Lite Thermostat wired 8Z [white/black]
⑧	CPRC[XXXXXX]MTE	Airzone motorizaded damper for rectangular duct
⑨	AZX6WEBSCLOUDC	Airzone X6 Cloud webserver ethernet

AIRZONE	Connection scheme - PROJECT DEPARTMENT	
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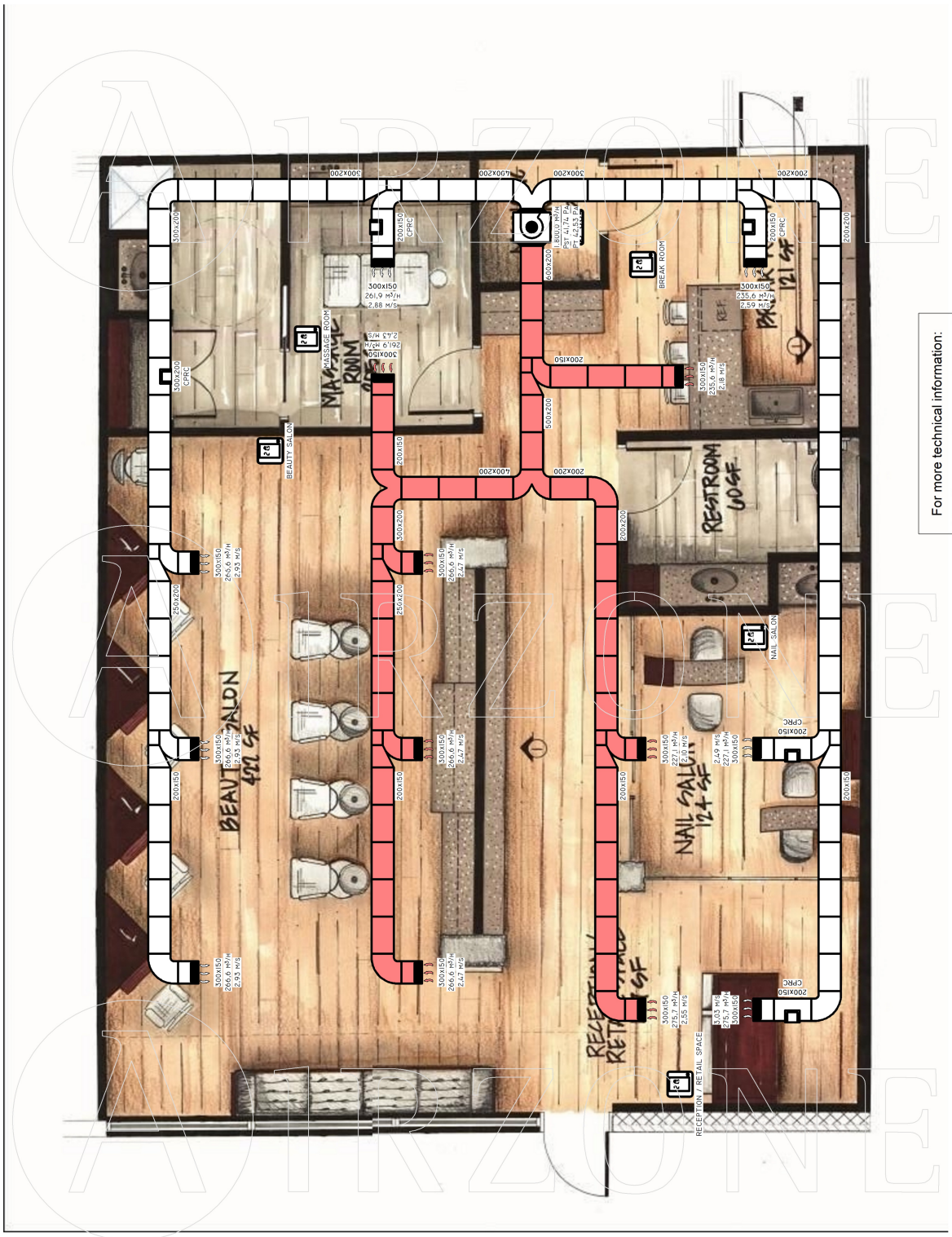
Installation scheme



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AIRZONE	Installation scheme - PROJECT DEPARTMENT	
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Duct calculation details

EQUIPMENT FEATURES						
Reference	Technology	Air flow (m³/h)	Total pressure (Pa)	Static pressure (Pa)	Gateway	Bypass damper
HITACHI RPI-4.0FSN5E	Direct expansion DX	1.800,0	42,53	41,74	AZX6QADAPTHIT	1 x BYIN020015

ZONES				
Reference	Surface area (m²)	Air flow (m³/h) Supply/Return	Diffusion	Control
BEAUTY SALON	41,1	799,7	BEAUTY SALON 3 - BEAUTY SALON 2 - BEAUTY SALON 1 - BEAUTY SALON 3 (R) - BEAUTY SALON 2 (R) - BEAUTY SALON 1 (R)	Term. BEAUTY SALON: BLUEFACE THERMOSTAT
BREAK ROOM	12,1	235,6	BREAK ROOM - BREAK ROOM (R)	Term. BREAK ROOM: BLUEFACE THERMOSTAT
MASSAGE ROOM	16,8	261,9	MASSAGE ROOM - MASSAGE ROOM (R)	Term. MASSAGE ROOM: BLUEFACE THERMOSTAT
NAIL SALON	11,7	227,1	NAIL SALON - NAIL SALON (R)	Term. NAIL SALON: BLUEFACE THERMOSTAT
RECEPTION / RETAIL SPACE	14,2	275,7	RECEPTION / RETAIL SPACE - RECEPTION / RETAIL SPACE (R)	Term. RECEPTION / RETAIL SPACE: BLUEFACE THERMOSTAT
Total	95,9	1.800,0/1.800,0	-	-

RESULTS IN DUCTS											
Section	Dimensions (Horz.xVert.) or Ø (mm)	Area (m²)	eqv. Ø (mm)	Leng. (m)	eqvL. (m)	Air flow (m³/h)	Veloc. (m/s)	ΔPs (Pa)	ΔPf (Pa)	ΔPt (Pa)	Pt. Final (Pa)
C01	300x200	0,06000	266	0,50	0,35	738,4	3,42	0,24	0,34	0,58	0,58
C02	300x200	0,06000	266	0,50	0,00	738,4	3,42	0,00	0,34	0,34	0,92
C03	300x200	0,06000	266	0,50	0,00	738,4	3,42	0,00	0,34	0,34	1,26
C04	300x200	0,06000	266	0,50	0,00	738,4	3,42	0,00	0,34	0,34	1,59
C05	300x200	0,06000	266	0,50	0,00	738,4	3,42	0,00	0,34	0,34	1,93
C06	200x200	0,04000	218	0,50	0,26	502,8	3,49	0,23	0,44	0,67	2,60
C07	200x200	0,04000	218	0,50	1,97	502,8	3,49	1,73	0,44	2,17	4,77
C08	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	5,21
C09	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	5,65
C10	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	6,09
C11	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	6,53
C12	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	6,97
C13	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	7,41
C14	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	7,85
C15	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	8,29
C16	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	8,73
C17	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	9,17
C18	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	9,61
C19	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	10,05
C20	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	10,49
C21	200x150	0,03000	189	0,50	0,70	275,7	2,55	0,42	0,30	0,72	11,21
C22	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	11,51
C23	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	11,81
C24	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	12,12
C25	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	12,42
C26	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	12,72
C27	200x150	0,03000	189	0,50	1,80	275,7	2,55	1,08	0,30	1,38	14,10
C28	200x150	0,03000	189	0,50	7,05	227,1	2,10	2,98	0,21	3,19	13,68
C29	200x150	0,03000	189	0,50	5,19	235,6	2,18	2,34	0,23	2,57	4,50
C30	400x200	0,08000	304	0,50	0,35	1.061,6	3,69	0,24	0,34	0,58	0,58
C31	400x200	0,08000	304	0,50	0,00	1.061,6	3,69	0,00	0,34	0,34	0,92
C32	400x200	0,08000	304	0,50	0,00	1.061,6	3,69	0,00	0,34	0,34	1,26
C33	300x200	0,06000	266	0,50	-0,34	799,7	3,70	-0,26	0,39	0,13	1,39
C34	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	1,78
C35	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	2,18
C36	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	2,57
C37	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	2,96
C38	300x200	0,06000	266	0,50	2,72	799,7	3,70	2,13	0,39	2,52	5,48
C39	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	5,88
C40	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	6,27
C41	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	6,66
C42	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	7,05
C43	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	7,44
C44	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	7,84

C45	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	8,23
C46	300x200	0,06000	266	0,50	0,00	799,7	3,70	0,00	0,39	0,39	8,62
C47	250x200	0,05000	244	0,50	0,86	533,1	2,96	0,49	0,29	0,78	9,40
C48	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	9,68
C49	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	9,97
C50	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	10,26
C51	200x150	0,03000	189	0,50	0,19	266,6	2,47	0,11	0,28	0,39	10,65
C52	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	10,93
C53	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	11,21
C54	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	11,50
C55	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	11,78
C56	200x150	0,03000	189	0,50	6,45	261,9	2,43	3,53	0,27	3,80	5,07
C57	600x200	0,12000	365	0,50	2,48	1.800,0	4,17	1,84	0,37	2,21	2,21
C58	600x200	0,12000	365	0,50	0,00	1.800,0	4,17	0,00	0,37	0,37	2,58
C59	600x200	0,12000	365	0,50	0,00	1.800,0	4,17	0,00	0,37	0,37	2,95
C60	200x150	0,03000	189	0,50	-0,50	235,6	2,18	-0,23	0,23	0,00	2,95
C61	200x150	0,03000	189	0,50	0,00	235,6	2,18	0,00	0,23	0,23	3,17
C62	200x150	0,03000	189	0,50	0,00	235,6	2,18	0,00	0,23	0,23	3,40
C63	500x200	0,10000	337	0,50	3,70	1.564,4	4,35	3,13	0,42	3,56	6,51
C64	500x200	0,10000	337	0,50	0,00	1.564,4	4,35	0,00	0,42	0,42	6,93
C65	400x200	0,08000	304	0,50	2,23	1.061,6	3,69	1,52	0,34	1,86	8,80
C66	400x200	0,08000	304	0,50	0,00	1.061,6	3,69	0,00	0,34	0,34	9,14
C67	400x200	0,08000	304	0,50	0,00	1.061,6	3,69	0,00	0,34	0,34	9,48
C68	300x200	0,06000	266	0,50	1,56	799,7	3,70	1,23	0,39	1,62	11,10
C69	250x200	0,05000	244	0,50	3,36	533,1	2,96	1,93	0,29	2,22	13,31
C70	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	13,60
C71	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	13,89
C72	250x200	0,05000	244	0,50	0,00	533,1	2,96	0,00	0,29	0,29	14,17
C73	200x150	0,03000	189	0,50	1,57	266,6	2,47	0,89	0,28	1,17	15,34
C74	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	15,63
C75	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	15,91
C76	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	16,19
C77	200x150	0,03000	189	0,50	0,00	266,6	2,47	0,00	0,28	0,28	16,47
C78	200x150	0,03000	189	0,50	3,44	261,9	2,43	1,88	0,27	2,15	11,63
C79	200x150	0,03000	189	0,50	0,00	261,9	2,43	0,00	0,27	0,27	11,91
C80	200x200	0,04000	218	0,50	2,97	502,8	3,49	2,61	0,44	3,05	9,98
C81	200x200	0,04000	218	0,50	1,97	502,8	3,49	1,73	0,44	2,17	12,16
C82	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	12,60
C83	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	13,04
C84	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	13,48
C85	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	13,92
C86	200x200	0,04000	218	0,50	0,00	502,8	3,49	0,00	0,44	0,44	14,36
C87	200x150	0,03000	189	0,50	2,99	275,7	2,55	1,79	0,30	2,09	16,45
C88	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	16,75
C89	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	17,05
C90	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	17,35
C91	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	17,65
C92	200x150	0,03000	189	0,50	0,00	275,7	2,55	0,00	0,30	0,30	17,95

RESULTS AT VENTS

Ref.	Dimensions (Horz.xVert.) or Ø (mm)	Rat. Q (m^3/h)	S. level (dBA)	Out. s. (m^2)	Out. v. (m/s)	ΔPs (Pa)	ΔPb (Pa)	Throw (m)	ΔPv (Pa)
RECEPTION / RETAIL SPACE	300x150	275,7	16	0,02530	3,03	0,37	4,48	4,68	18,94
NAIL SALON	300x150	227,1	< 15	0,02530	2,49	0,25	3,04	3,86	16,97
BREAK ROOM	300x150	235,6	< 15	0,02530	2,59	0,27	3,27	4,00	8,04
BEAUTY SALON 3	300x150	266,6	16	0,02530	2,93	1,01	4,19	4,53	16,98
BEAUTY SALON 2	300x150	266,6	16	0,02530	2,93	1,88	4,19	4,53	16,33
BEAUTY SALON 1	300x150	266,6	16	0,02530	2,93	3,29	4,19	4,53	16,10
MASSAGE ROOM	300x150	261,9	15	0,02530	2,88	0,33	4,04	4,45	9,44
BREAK ROOM (R)	300x150	235,6	< 15	0,03000	2,18	0,13	3,33	4,02	6,85
BEAUTY SALON 3 (R)	300x150	266,6	17	0,03000	2,47	1,01	4,26	4,55	21,75
BEAUTY SALON 2 (R)	300x150	266,6	17	0,03000	2,47	-0,21	4,26	4,55	18,22
BEAUTY SALON 1 (R)	300x150	266,6	17	0,03000	2,47	-2,75	4,26	4,55	12,60
MASSAGE ROOM (R)	300x150	261,9	17	0,03000	2,43	0,16	4,11	4,47	16,18
NAIL SALON (R)	300x150	227,1	< 15	0,03000	2,10	-1,17	3,09	3,88	16,28
RECEPTION / RETAIL SPACE (R)	300x150	275,7	18	0,03000	2,55	1,08	4,56	4,71	23,59

Abbreviations:

Rat. Q: Rated air flow

S. level.: Regenerated individual sound level at head unit

Out. s.: Effective output surface area

Out. v: Output velocity

eqv. Ø: Equivalent diameter

Leng: Duct length

eqvL: Equivalent length of transformation pieces

ΔPs: Total pressure loss at input transformation piece

ΔPs: Total pressure loss at input transformation piece *ΔPb: Total pressure loss at vent* *ΔPv: Total pressure loss from fan*	*ΔPf: Pressure loss due to friction* *ΔPt: Total pressure loss* *ΔPt Final: Total pressure loss from fan*

List of materials

File code:	EXAMPLE_RETAIL
Description:	RETAIL (MULTIZONING SOLUTION FLEXA 3.0)
Date:	17/07/2020

Item	Description	Units
AZCE6FLEXA3	AIRZONE FLEXA 3.0 MAIN CONTROL BOARD (CE6)	1
AZX6QADAPTHIT	AIRZONE-HITACHI RPI COMMUNICATION GATEWAY	1
AZCE6BLUEFACECB	AIRZONE BLUEFACE COLOR THERMOSTAT WIRED WHITE	5
CPRC030020_MOT	MOTORIZED RECTANGULAR DUCT DAMPER AIRZONE 300x200 mm	1
CPRC020015_MOT	MOTORIZED RECTANGULAR DUCT DAMPER AIRZONE 200x150 mm	4
BYIN020015	INDIVIDUAL SECURITY BYPASS 200x150	1
AZX6CABLERN100	AIRZONE RN CABLE (2X0,75) 100 M	1
AZX6CABLEBUS100	AIRZONE BUS CABLE (2X0,5+2X0,22) 100 M	1

Other materials:

m^2	Rectangular / Insulation panels duct (plus 10% offcuts)	69,95009

NOTE: Duct length is not exact since the ductwork has been sized by means of a simplified template.