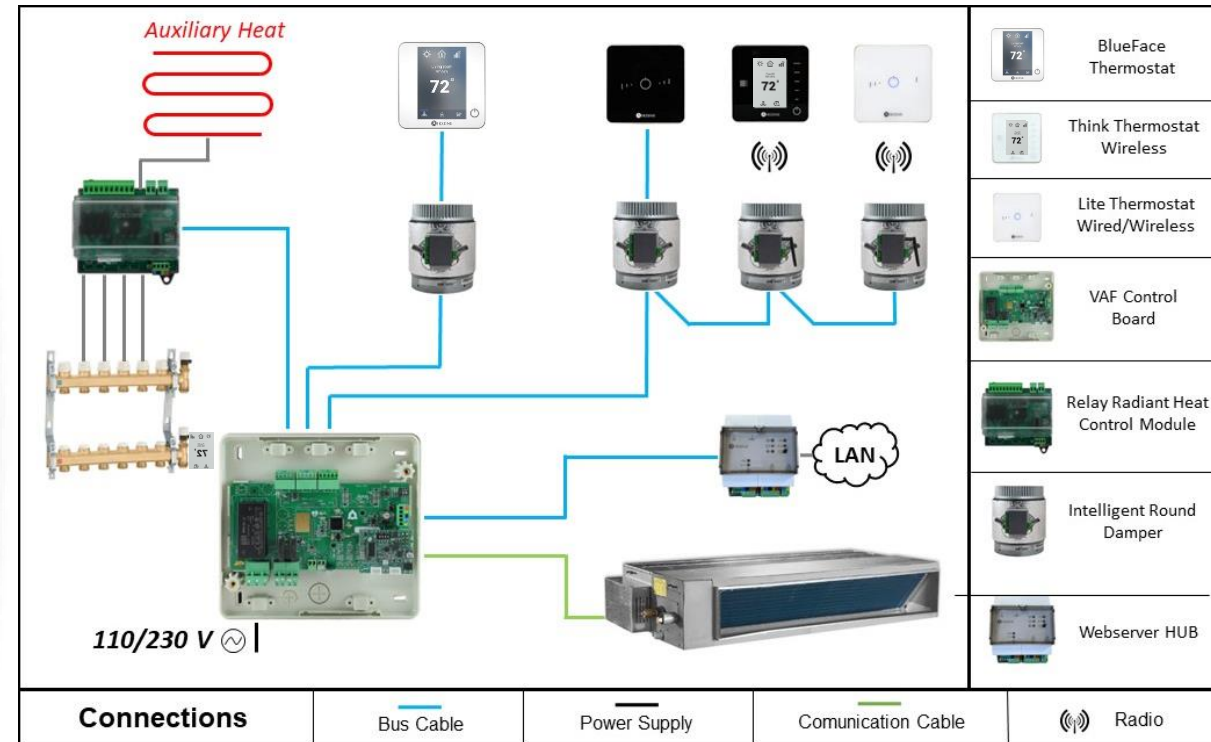


Airzone VAF Zoning System: Elements & Connection Cheat Sheet

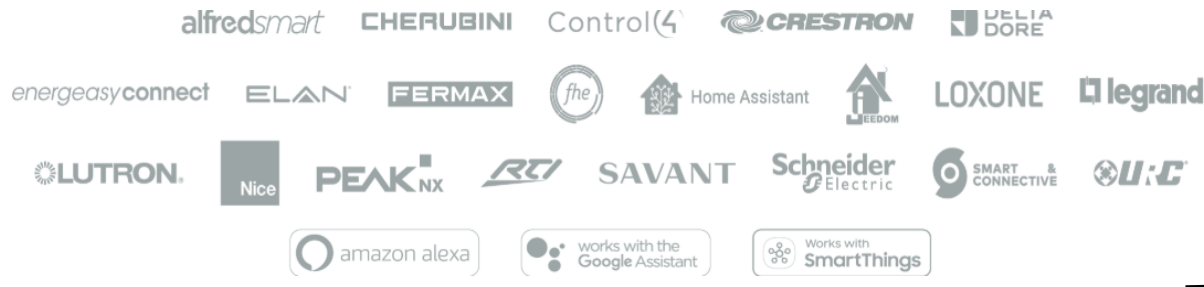
- Control of individual units
- Underfloor heating control
- Heating & Cooling
- Up to 10 zones
- Residential & Commercial



Specification

- Check Indoor Unit compatibility [here](#)

- If there is Integration:



Webserver HUB (AZX6WSPHUB) is required

- Individual (ductless) or Zoned Indoor Unit:

Zoned IDU -> as many thermostats as zones with their motorized dampers

Individual IDU -> as many thermostats as zones with their Airzone zone module for individual equipment

- Underfloor Heating, Infloor Heating, Baseboard Heating, Duct Heater, Supplemental Heater, or Auxiliary Heat per zone -> Relay Radiant Heat Control Module (AZVAF5OUTPUTS) If there are zones with only underfloor heating -> then a thermostat and a radiant zone module (AZVAFZMRAD[C/R]) is required for each of these zones.

- Check Damper Selection [here](#)

Choose your thermostats [here](#)



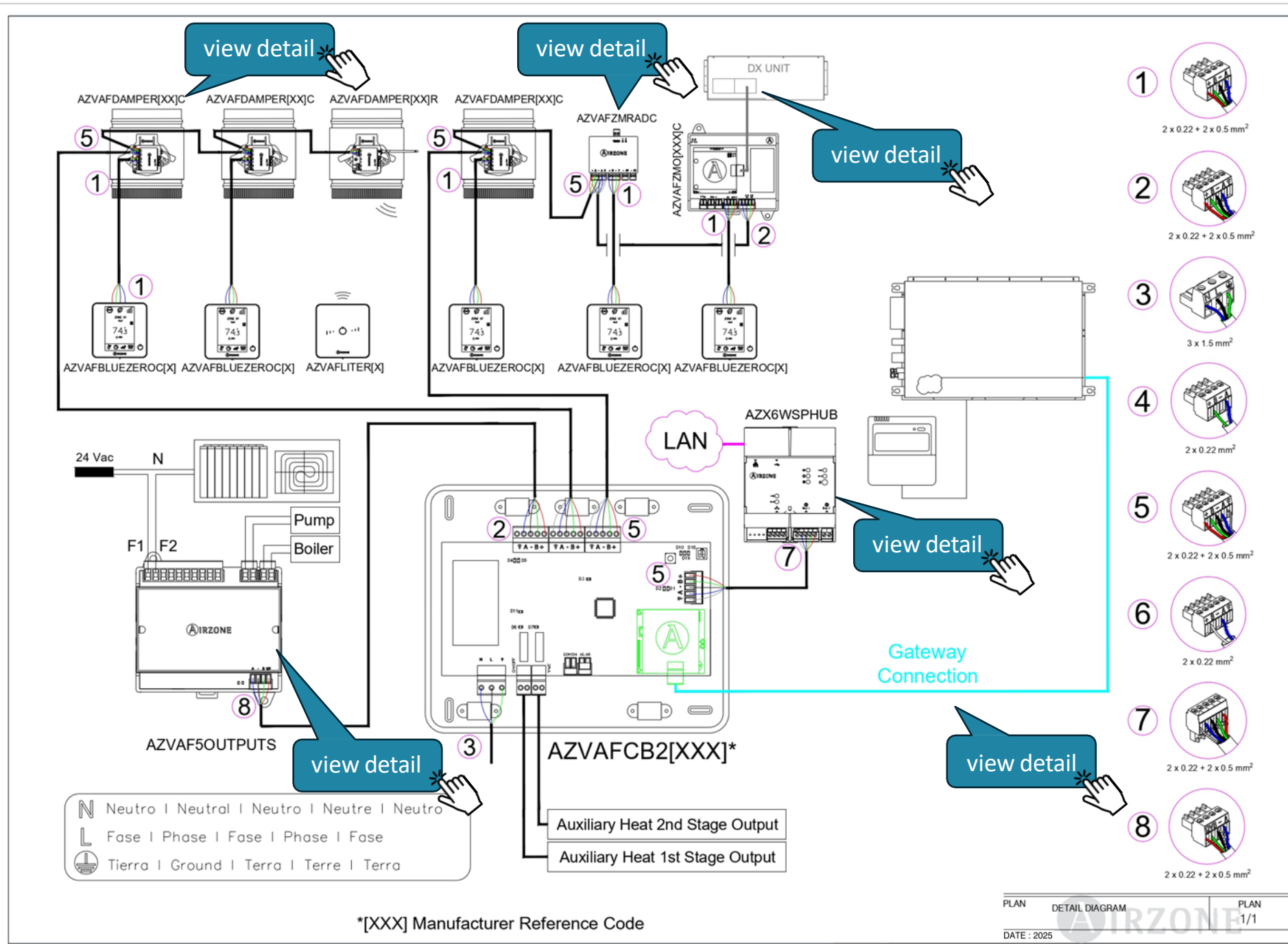
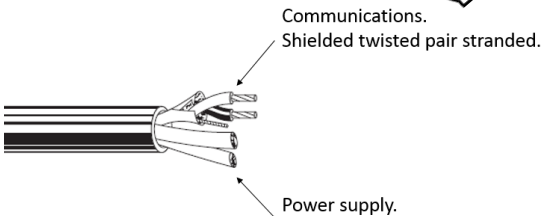
Wiring Diagram

Available formats:

- [DWG](#)
- [PDF](#)



Wire for the whole system:
Airzone Shielded Bus Cable UL444
[AZX6CBLBUS300FT](#)




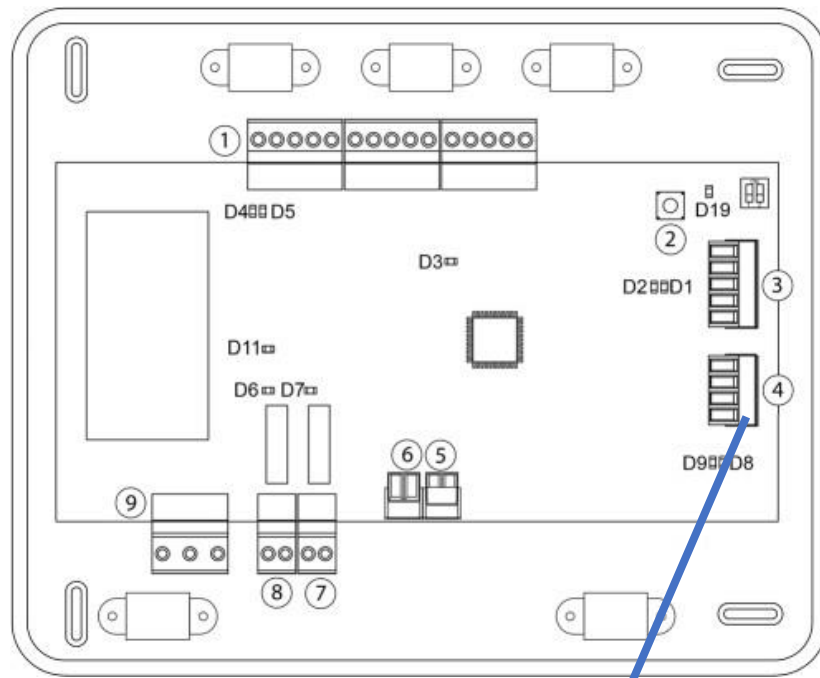
Control Board

AZVAFCBXGHA 



Documentation:

- [Data Sheet CB](#)
- [Data Sheet Gateway](#)
- [Manual](#)
- [Quick Installation Guide](#) 

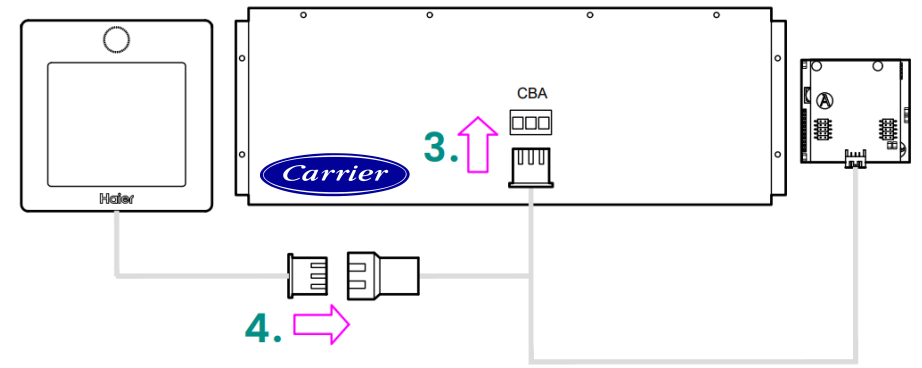
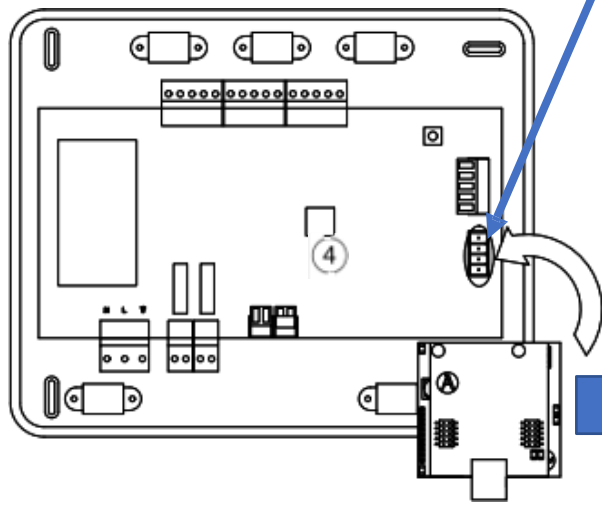
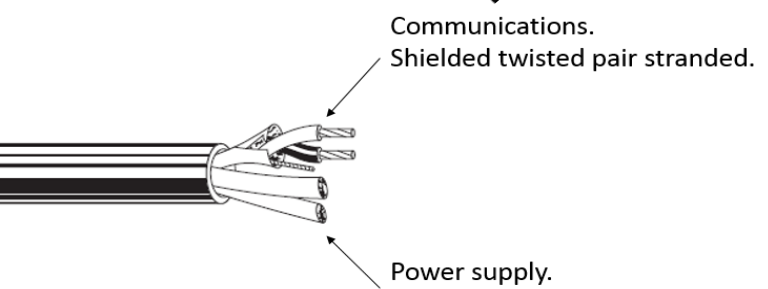


| N° | Description / Description / Descripción |
|----|----------------------------------------------------------------------------------------------------------------------|
| 1 | Airzone connection bus / Bus de connexion Airzone / Bus de conexión Airzone |
| 2 | SW1 |
| 3 | Automation bus / Bus domotique / Bus domótico |
| 4 | AC unit bus / Bus du gainable / Bus máquina |
| 5 | Alarm input (normally close) / Entrée alarme (normalement fermé) / Entrada alarma (normalmente cerrada) |
| 6 | Protection temperature probe / Sonde température protection / Sonda temperatura protección |
| 7 | Auxiliary heat 2nd Stage output / Sortie de l'étape 2 du chauffage auxiliaire / Salida de 2ª etapa de calor auxiliar |
| 8 | Auxiliary heat 1st Stage output / Sortie de l'étape 1 du chauffage auxiliaire / Salida de 1ª etapa de calor auxiliar |
| 9 | Power supply / Alimentation / Alimentación |

Wire for the whole system:

Airzone Shielded Bus Cable UL444

[AZX6CBLBUS300FT](#) 




Return to Wiring diagram 



Zone module for IDU



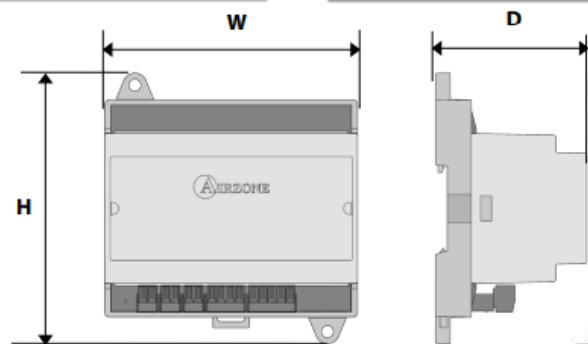
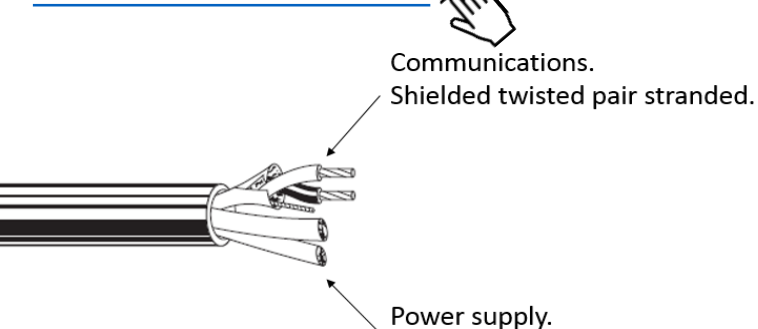
Documentation:

- [Data Sheet](#)
- [Gateway](#) 
- [Manual](#)

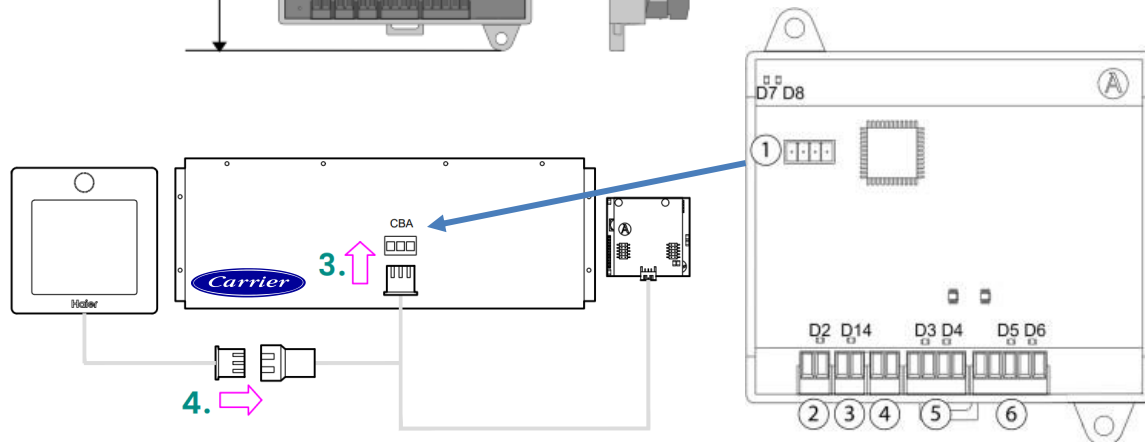
Wire for the whole system:

Airzone Shielded Bus Cable UL444

[AZX6CBLBUS300FT](#) 

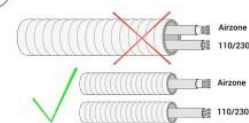
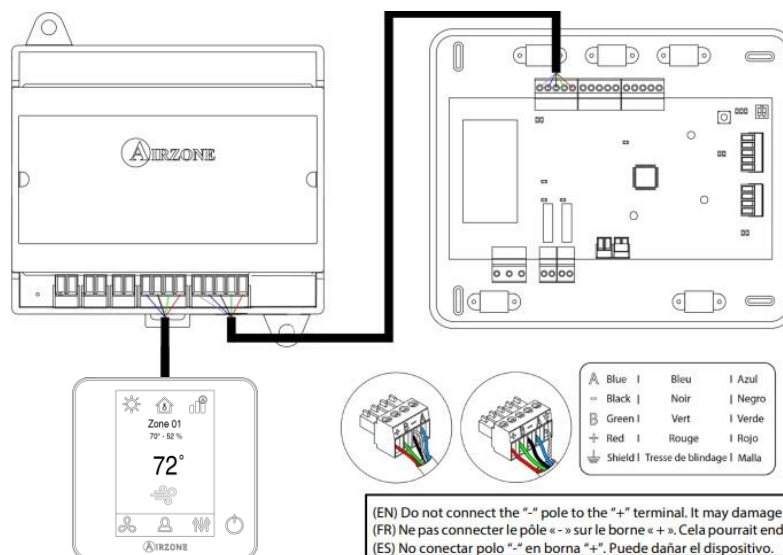


| Mechanical aspects / Aspects mécaniques / Aspectos mecánicos | |
|--------------------------------------------------------------|------------------------------------------------------------------------------------|
| Assembly / Montage / Montaje | On DIN rail or on wall Sur rail DIN ou en saillie En carril DIN o superficie |
| Size / Dimensions / Dimensiones (WxHxD) | 105x112x62.8 mm (4.13x4.41x2.47) |
| In DIN units / En unités DIN / En unidades DIN | 6 |



| Meaning / Signification / Significado | |
|---------------------------------------|-----------------------------------------------------------------------------|
| ① | Gateway connection / Connexion passerelle / Conexión pasarela |
| ② | Probe input / Entrée sonde / Entrada sonda |
| ③ | Window contact / Contact de fenêtre / Contacto ventana |
| ④ | Presence contact / Détecteur de présence / Contacto presencia |
| ⑤ | Thermostat connection / Connexion thermostat / Conexión termostato |
| ⑥ | Airzone connection bus / Bus de connexion Airzone / Bus de conexión Airzone |

Note: Use a shielded twisted pair to connect the window contact.
Note: Utiliser un câble blindé pour la connexion du contact de fenêtre.
Nota: Para la conexión del contacto ventana utilizar cable apantallado.



(EN) Do not connect the "-" pole to the "+" terminal. It may damage the device.
 (FR) Ne pas connecter le pôle «-» sur le borne «+». Cela pourrait endommager le dispositif.
 (ES) No conectar polo "-" en borna "+". Puede dañar el dispositivo.

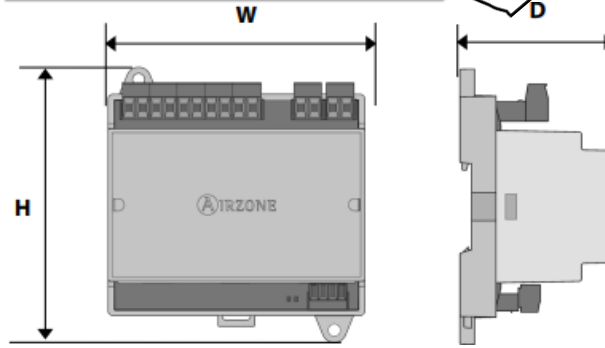
Return to Wiring diagram 



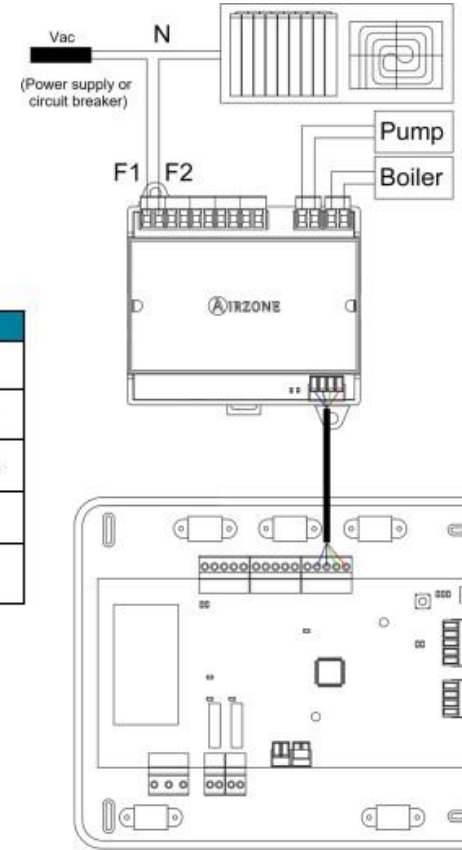
Relay Radiant Heat Control Module

Optional element – review the [Specification](#)

AZVAF5OUTPUTS



| Power supply and consumption / Alimentación y consumo | |
|----------------------------------------------------------------------|----------------------------------------------------------------------|
| Type of power supply / Type d'alimentation / Tipo de alimentación | Vdc |
| | V max 12 V |
| | I max 160 mA |
| Stand-by consumption / Consumption Stand-by / Consumo Stand-by | 4 W |
| Connection and communications / Conexión y comunicaciones | |
| Type of cable / Type de câble / Tipo de cable | Shielded twisted pair Torsadé et blindé Trenzado y apantallado |
| Communication wires / Fils de communications / Hilos de comunicación | 2 x 0,22 mm ² (AWG 23 – 2 wired) |
| Power supply wires / Fils d'alimentation / Hilos de alimentación | 2 x 0,5 mm ² (AWG 20 – 2 wired) |
| Maximum distance / Distance maximum / Distancia máxima | 100 m (328 ft) |
| Activation relays / Relais d'activation / Relés de activación | |
| N° of outputs / Nombre de sorties / N° de salidas | 7 |
| | V max 24 V |
| | I max 1 A cos θ ($\theta > 0,6$) |
| Mechanical aspects / Aspects mécaniques / Aspectos mecánicos | |
| Assembly / Montage / Montaje | On DIN rail Sur rail DIN Sobre carril DIN |
| Dimensions / Dimensions / Dimensiones (WxHxD) | 105x112x62.8 mm (4.1x4.4x2.5") |
| In DIN units / En unités DIN / En unidades DIN | 6 |



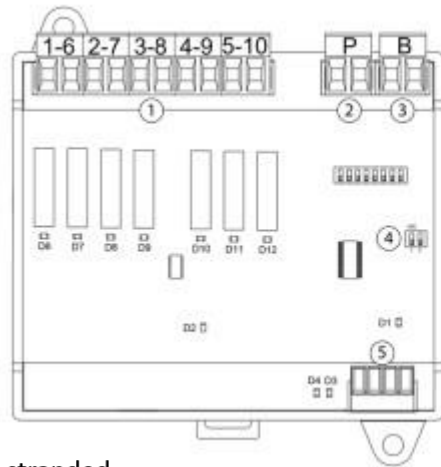
Documentation:

- [Data Sheet](#)
- [Manual](#)

Wire for the whole system:

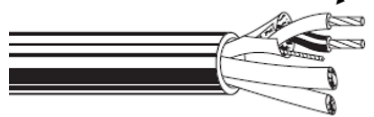
Airzone Shielded Bus Cable UL444

[AZX6CBLBUS300FT](#)



Communications.
Shielded twisted pair stranded.

Power supply.



| Meaning / Signification / Significado | |
|---------------------------------------|-----------------------------------------------------------------------------|
| ① | Zone control relays / Relais de contrôle des zones / Relés de zona |
| ② | Pump control relay / Relais de contrôle de la pompe / Relés de bomba |
| ③ | Boiler control relay / Relais de contrôle de la chaudière / Relé de caldera |
| ④ | SW2 |
| ⑤ | Airzone connection bus / Bus de connexion Airzone / Bus de conexión Airzone |



Return to Wiring diagram



Radiant Zone Module

Optional - Only to use with radiant zones

Documentation:

- [Data Sheet](#)
- [Manual](#)

Wire for the whole system:

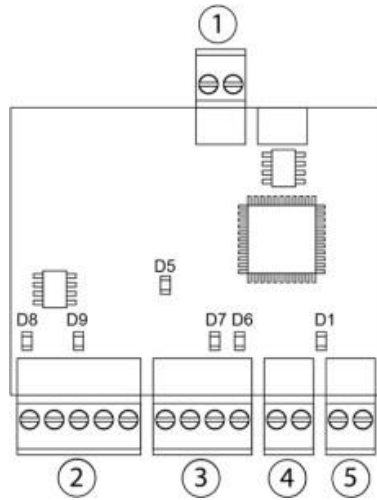
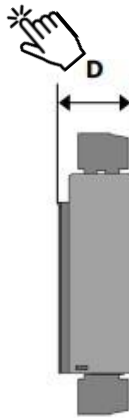
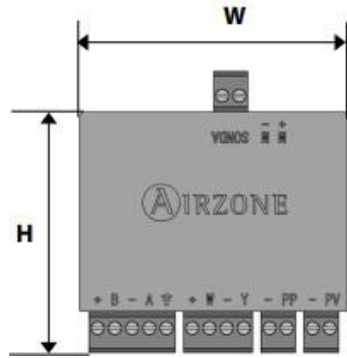
Airzone Shielded Bus Cable UL444

[AZX6CBLBUS300FT](#)

Communications.
Shielded twisted pair stranded.

Power supply.

AZVAFZMRADC



| Actuator power supply / Alimentación del motor | |
|--------------------------------------------------------------|--------------------------------|
| V max | ±12 Vdc |
| I max | 300 mA |
| Mechanical aspects / Aspectos mecánicos / Aspectos mecánicos | |
| Dimensions / Dimensions / Dimensiones (WxHxD) | 59x44,5x17mm (2.32x1.75x0.67") |

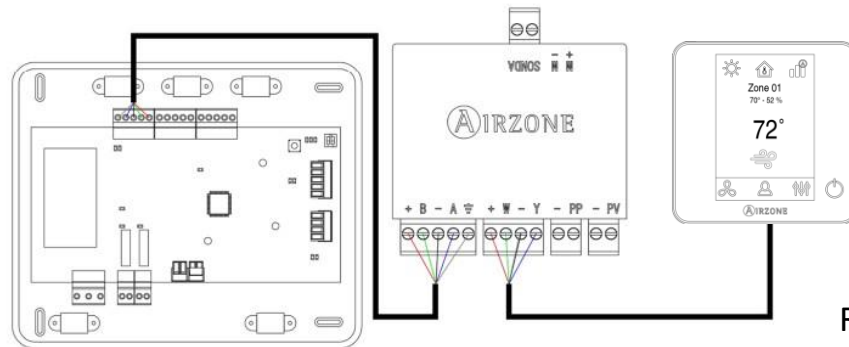
| Meaning / Signification / Significado | |
|---------------------------------------|-----------------------------------------------------------------------------|
| ① | Probe connector / Connecteur sonde / Conector sonda |
| ② | Airzone connection bus / Bus de connexion Airzone / Bus de conexión Airzone |
| ③ | Thermostat connection / Connexion thermostat / Conexión termostato |
| ④ | Presence contact / Détecteur de présence / Contacto presencia |
| ⑤ | Window contact / Contact de fenêtre / Contacto ventana |

Note: Use a shielded twisted pair to connect the window contact.

Note: Utiliser un câble blindé pour la connexion du contact de fenêtre.

Nota: Para la conexión del contacto ventana utilizar cable apantallado.

(EN) Do not connect the "-" pole to the "+" terminal. It may damage the device.
(FR) Ne pas connecter le pôle « - » sur le borne « + ». Cela pourrait endommager le dispositif.
(ES) No conectar polo "-" en borna "+". Puede dañar el dispositivo.

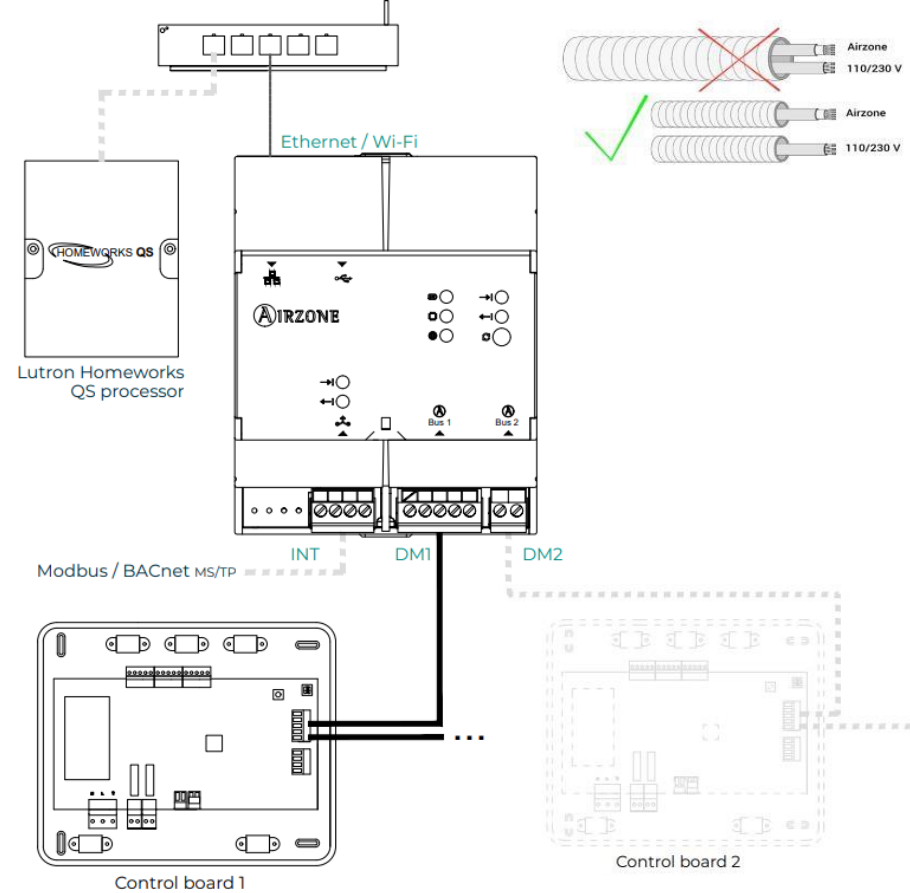
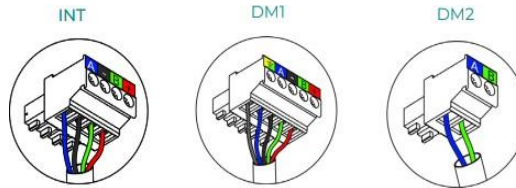
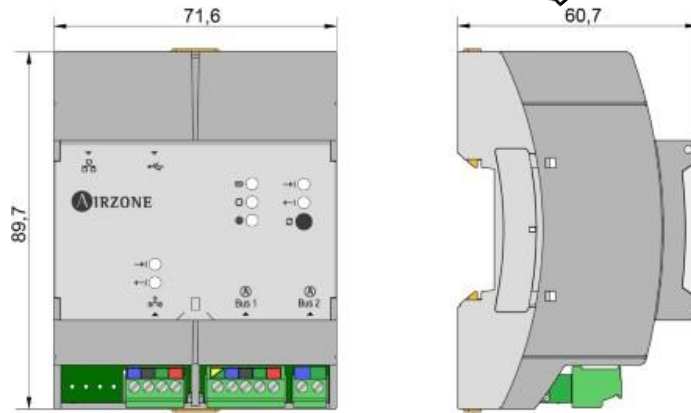


Return to Wiring diagram



Webserver HUB

AZX6WSPHUB



Documentation:

- [Data Sheet](#)
- [Manual](#)

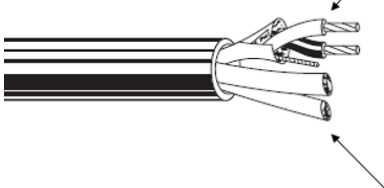
Wire for the whole system:

Airzone Shielded Bus Cable UL444

[AZX6CBLBUS300FT](#)

Communications.
Shielded twisted pair stranded.

Power supply.



| N° | Descripción / Description / Descrição |
|-----------|----------------------------------------------------------------------------------|
| DM1 - DM2 | Bus de conexión Airzone / Airzone connection bus / Barramento de conexão Airzone |
| INT | Puerto Modbus-BACnet / Modbus-BACnet port / Porta Modbus BACnet |
| Ethernet | Ethernet |
| x1 | Detectar sistema / Detect system / Detectar sistema |
| | Reset |

Webserver HUB integration:



[Link Airzone Cloud](#)

[Link BACnet](#)

[Link Lutron](#)

Return to Wiring diagram



AZVAFDAMPER[XX]C / AZVAFDAMPER[XX]R

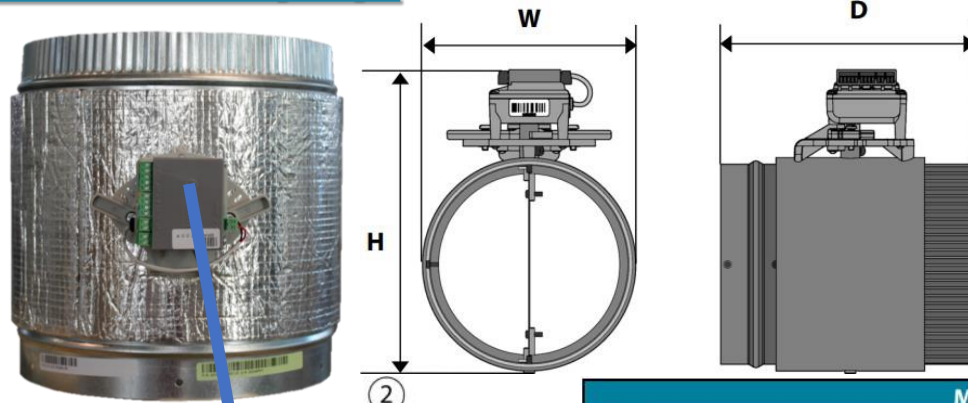
[XX] → dimensions in inches



C → wired

R → wireless

Dampers



Damper with actuator / Registre motorisée / Compuerta motorizada

| Power supply / Alimentation / Alimentación y consumo | | | |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------|--------|
| Type of power supply / Type d'alimentation / Tipo de alimentación | | Vdc | 12 V |
| | | I max | 250 mA |
| Mechanical aspects / Aspects mécaniques / Aspectos mecánicos | | | |
| Torque at the actuator axle / Couple au niveau de l'axe du moteur / Par en el eje motor | | | 0.8 Nm |
| Size / Taille / Diámetro | Weight / Poids / Peso | Dimensions / Dimensions / Dimensiones (HxWxD) | |
| 06" | 0.755 kg (1.66 lb) | 235.99x152.4x203.2 mm (9.3x6x8") | |
| 08" | 0.986 kg (2.17 lb) | 271.45x203.2x215.9 mm (10.7x8x8.5") | |
| 10" | 1.961 kg (4.32 lb) | 337.2x254x266.7 mm (13.3x10x10.5") | |
| 12" | 3.2 kg (7.05 lb) | 388x304.8x419.1 mm (15.3x12x16.5") | |
| 14" | 4.5 kg (9.92 lb) | 438.8x355.6x469.9 mm (17.3x14x18.5") | |

Documentation:

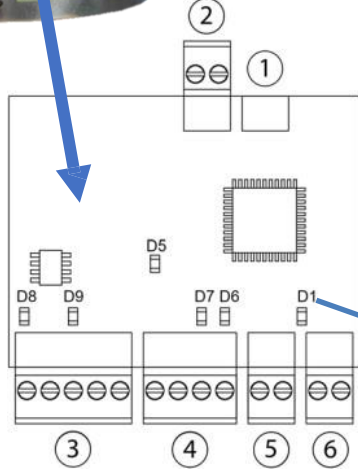
- [Data Sheet](#)
- [Manual](#)

Selection of dampers

Quick guide for damper selection

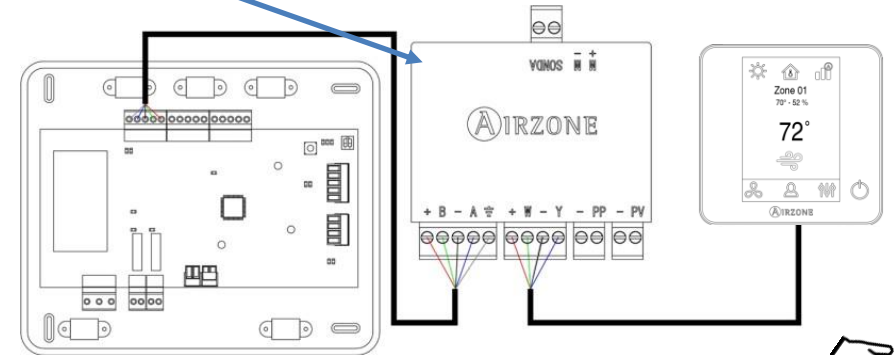
| Diameter | Max. Airflow (CFM) | |
|----------|-------------------------|-------------------------|
| | Housing (1000 ft / min) | Offices (1200 ft / min) |
| 6" | 196 | 235 |
| 8" | 349 | 419 |
| 10" | 545 | 654 |
| 12" | 785 | 942 |
| 14" | 1069 | 1287 |

- Check Damper Selection [here](#)
- The dampers module come already mounted on dampers



| Meaning / Signification / Significado | |
|---------------------------------------|------------------------------------------------------------------------------------------|
| ① | Motorized element connector / Connecteur élément motorisé / Conector elemento motorizado |
| ② | Probe connector / Connecteur sonde / Conector sonda |
| ③ | Airzone connection bus / Bus de connexion Airzone / Bus de conexión Airzone |
| ④ | Thermostat connection / Connexion thermostat / Conexión termostato |
| ⑤ | Presence contact / Détecteur de présence / Contacto presencia |
| ⑥ | Window contact / Contact de fenêtre / Contacto ventana |

Note: Use a shielded twisted pair to connect the window contact.
Note: Utiliser un câble blindé pour la connexion du contact de fenêtre.
Nota: Para la conexión del contacto ventana utilizar cable apantallado.



Return to Wiring diagram



FAQs

- Can I connect two or more dampers to a single thermostat?

Yes you can

- Can I not have a thermostat?

Yes, you can do a temp. sensor connected to the damper and control temperature via BlueZero thermostat or Airzone Cloud App

- Do I need the manufacturer thermostat connected?

Some manufacturers require the thermostat, check with your local salesperson to ask if you need it or not

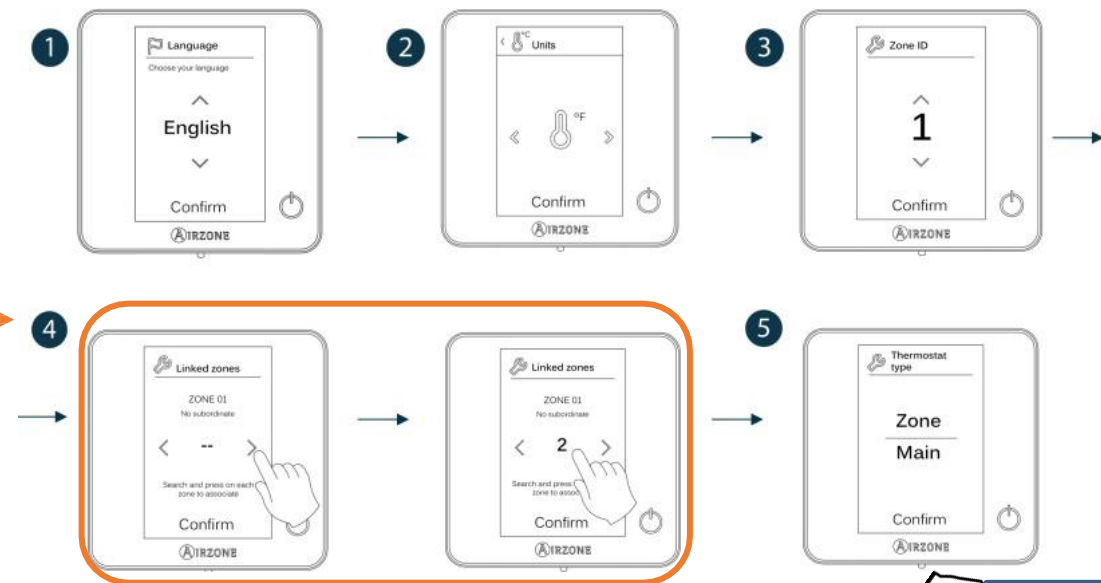
- Can I use a rectangular damper from another manufacturer?

No, our system is closed and it will not work

- How many zones can I do?

Up to 10 zones either with dampers or individual units

Steps for subordinate damper:



Return to Wiring diagram

