DAIKIN VRV 3-PIPE SYSTEM (WITH HEAT RECOVERY)

ROOM CONTROLLER

- On/Off
- Setpoint
- Mode (Cool/Heat/Fan/Dry)
- Fan (2 or 3 speeds, depending on the internal unit. Unit 3 has two fan speeds, the rest of units have 3 fan speeds)
- Swing control (if it is available in the internal unit). In this example project, the unit 4 hasn't swing control.

INSTALLATION CONFIGURATION

- Integration of a system of 5 Daikin VRV 3-pipe AC units (with heat recovery), so one internal unit should be configured as master of mode for each heat recovery box in the system
- Bidirectional communication between KNX and Daikin Unit thanks to KLIC-DI (See the compatibility table)

MASTER/SLAVE CONFIGURATION

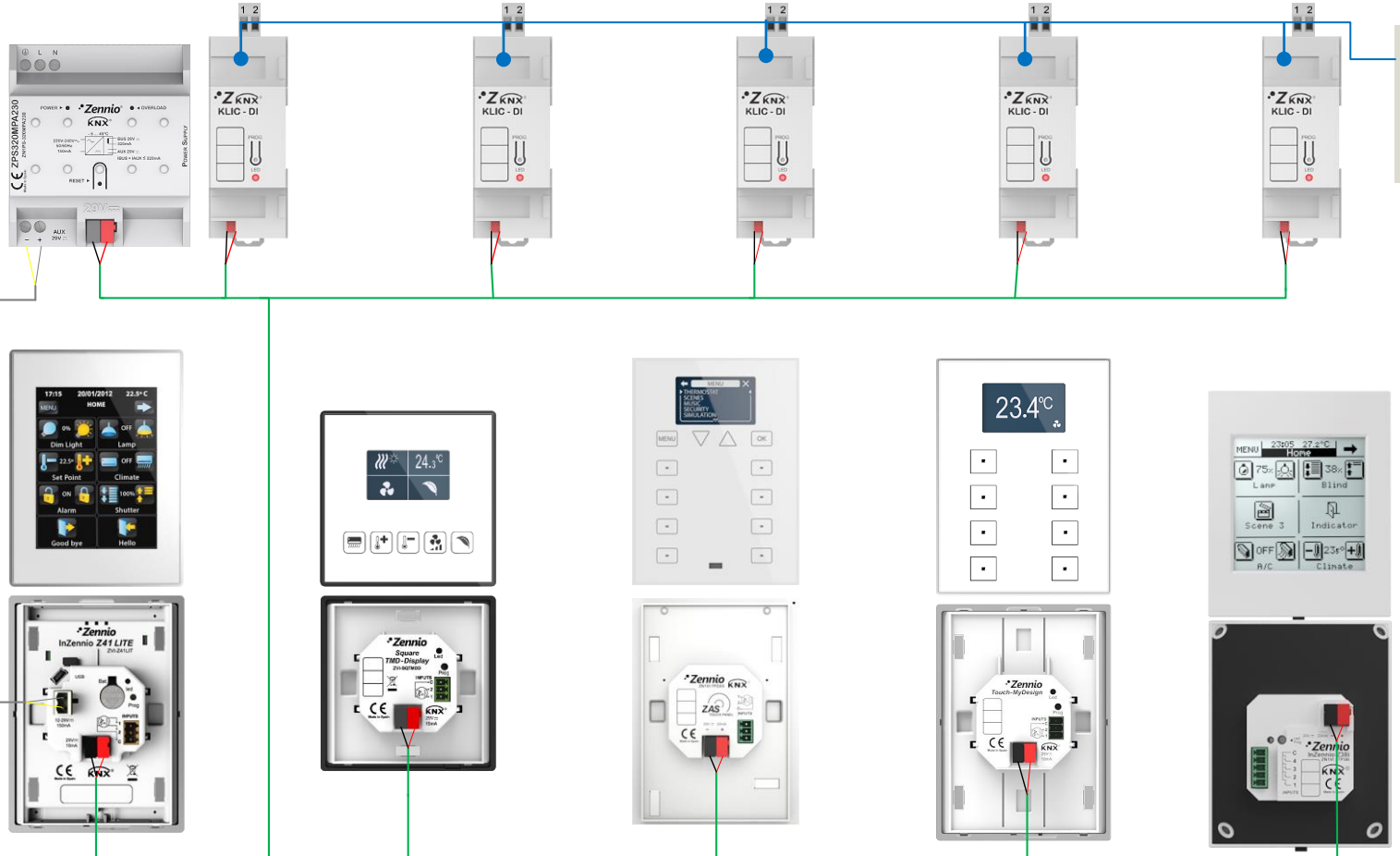
- Simultaneous control from KNX and Daikin remote control of the air conditioner thanks to the master/slave configuration of communication with the internal unit.
- Configuration of one unit as master of mode for each heat recovery box. Opposite modes can be selected in different units associated to different heat recovery boxes. Slave mode units can work according to the master unit of this Heat recovery box.

In the unit 3, the KLIC-DI is configured as slave of the communication. Due to this, the Daikin wired remote control sends the Ambient Temperature to the unit to do the comparison with the setpoint with the purpose of controlling the climate functions.

IMPORTANT: When checking ETS Project, activating the option **"! Show changes"** on parameter tab, the symbol **"!"** will appear showing the modified parameters on ETS.

NEEDED DEVICES AND WIRING DIAGRAM

ZPS320MPA230
KNX power supply 320mA with ancillary power supply 29VDC. Vin: 230 V
REF: ZN1PS-320MPA230



KLIC-DI
Bus KNX to Daikin Industrial
REF: ZN1CL-KLIC-DI

InZennio Z41
KNX capacitive colour touch panel
REF: ZN1VI-TP41C

Square TMD-Display
Square capacitive touch panel with 5 buttons and upper graphical display with thermostat
REF: ZVI-SQTMDD

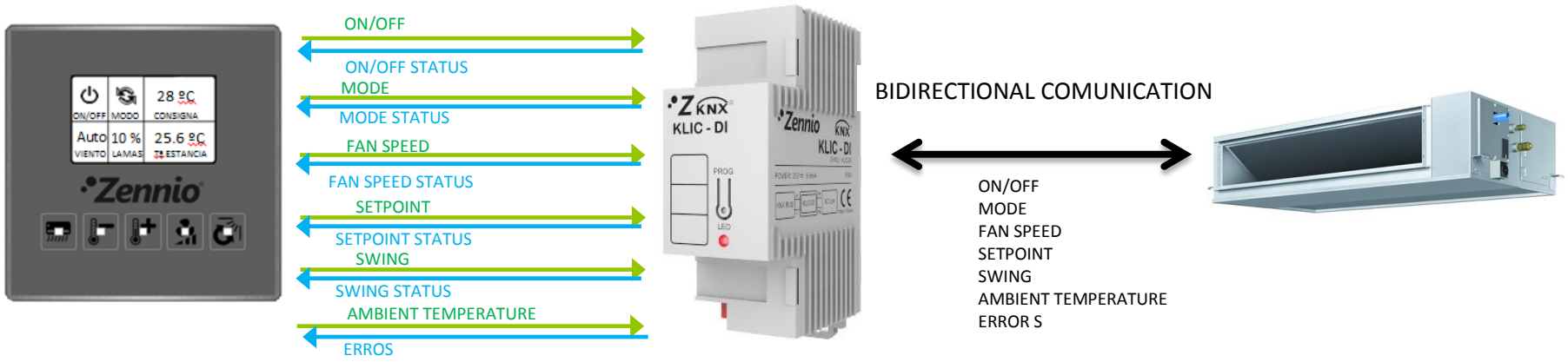
Roll-ZAS
Touch Controller Roll-ZAS
REF: ZN1VI-TPZAS

TMD-Display One
KNX Capacitive Room Controller
REF: ZVI-TMDD

InZennio Z38i
Touch Panel KNX
REF: ZN1VI-TP38i

KNX COMMUNICATION OBJECTS

ROOM CONTROLLER **KLIC-DI** **AIR CONDITIONER UNIT**



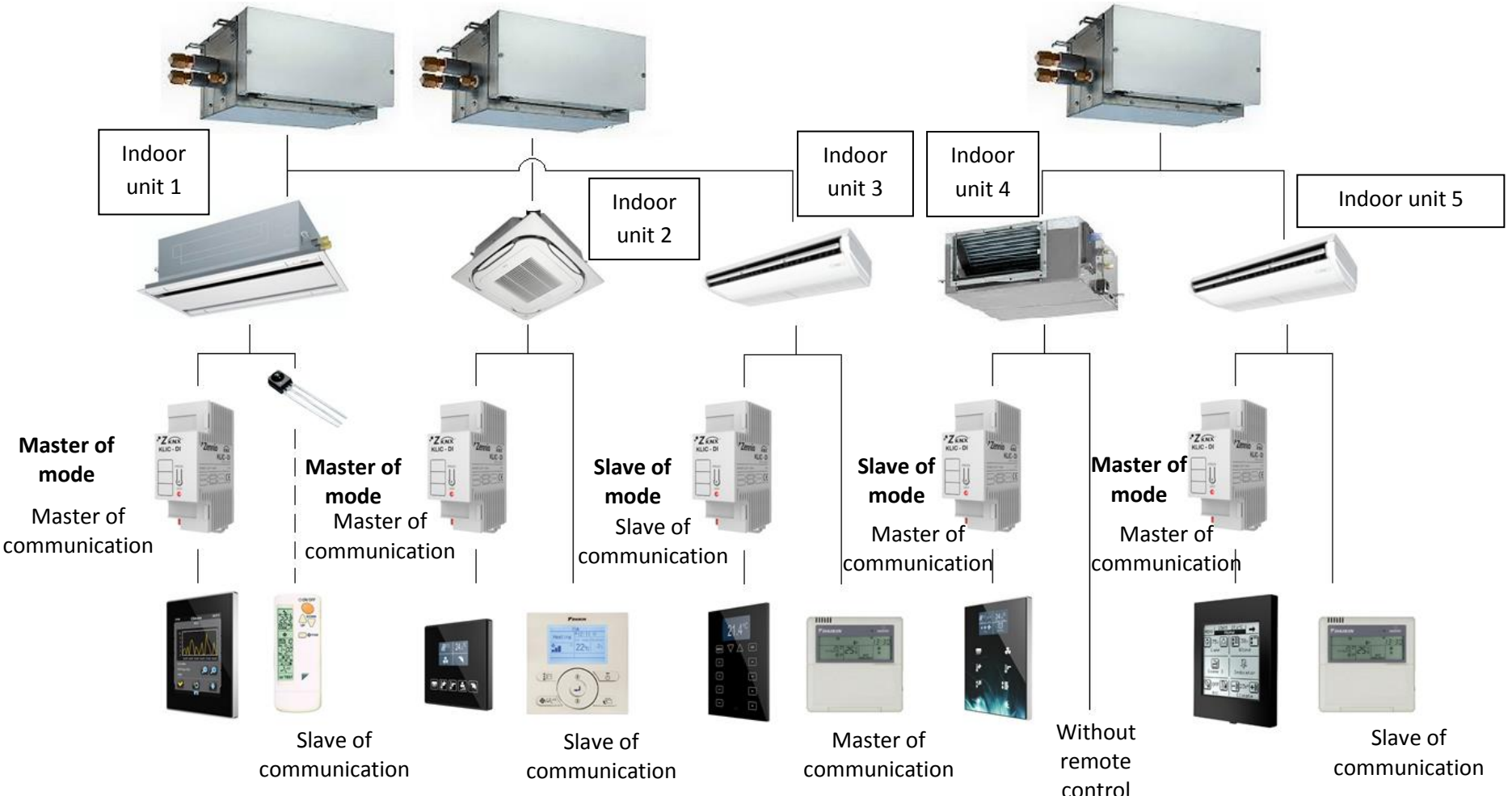
NOTE: Respect to the operating mode, the units of the rooms 1, 2 and 5 will establish the operating mode of their corresponding heat recovery boxes, as they are configured as Master of mode. The rest of units (slaves of mode) will work of one of the following ways depending on its configuration (see the ETS project):

- The operating mode of the unit 2 will be the same than the one established by the unit 1 in the InZennio Z41.
- The operating mode of the unit 4 will depend on the mode established in the heat recovery box by the Master of mode unit (unit 5) according to the next table:

Modes available for selection									
Master of mode	Cool			Heat		Fan	Dry		
Slave of mode	Cool	Fan	Dry	Heat	Fan	Fan	Cool	Fan	Dry

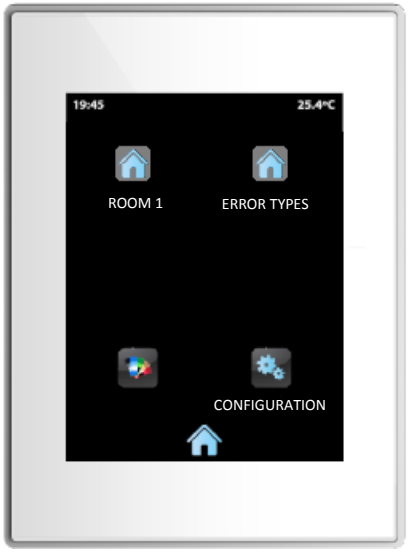
MASTER/SLAVE CONFIGURATION

- The indoor unit can be controlled from KNX and the Daikin remote controller simultaneously provided that one of the controllers is configured as Master and the other as Slave.
- The operating mode control will depend on the Master/Slave of mode configuration. See page 2



Note: All Daikin remotes are configured as slave of mode. Daikin IR remote controllers must be configured as Slave of communication.

ROOM CONTROLLER



ON/OFF CONTROL AND INDICATOR

Unit turned off

Unit turned on

CONTROL AND INDICADOR OF MODE

Dry mode

Fan mode

Cool mode

Heat mode

CONTROL AND INDICADOR OF FAN SPEED

Minimum fan speed

Medium fan speed

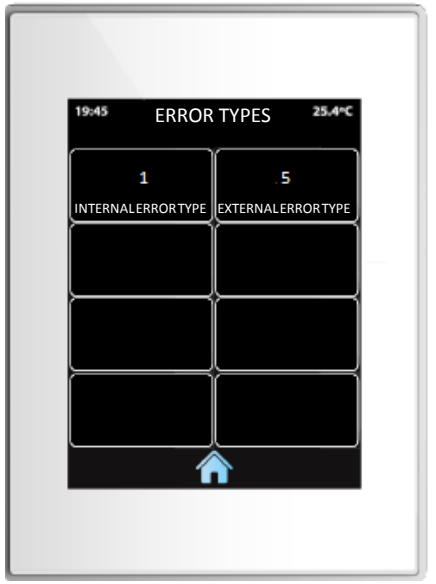
Maximum fan speed

INTERNAL ERROR TYPE INDICATOR

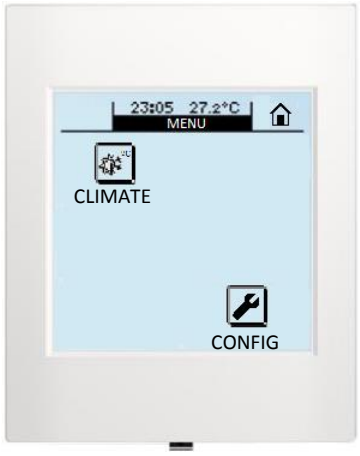
Error number	Internal error type
1	Data reception failed
2	Communication time exceded
3	Incorrect checksum
4	Incorrect response from the machine

EXTERNAL EERROR TYPE INDICATOR

1 – 239: See Errors table. Annex II of the manual



ON/OFF CONTROL AND INDICATOR



On/Off unit

CONTROL AND INDICATOR OF SETPOINT

Increase/Decrease Setpoint

CONTROL AND INDICATOR OF MODE

Heat mode

Cool mode

Fan mode

Dry mode

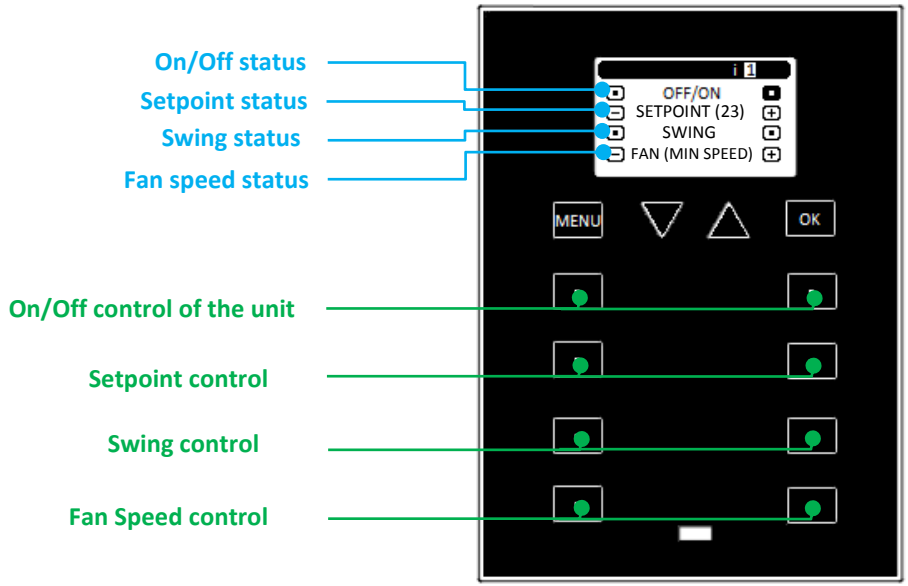
Auto mode not available, although it is selectable in the display

CONTROL AND INDICATOR OF FAN SPEED

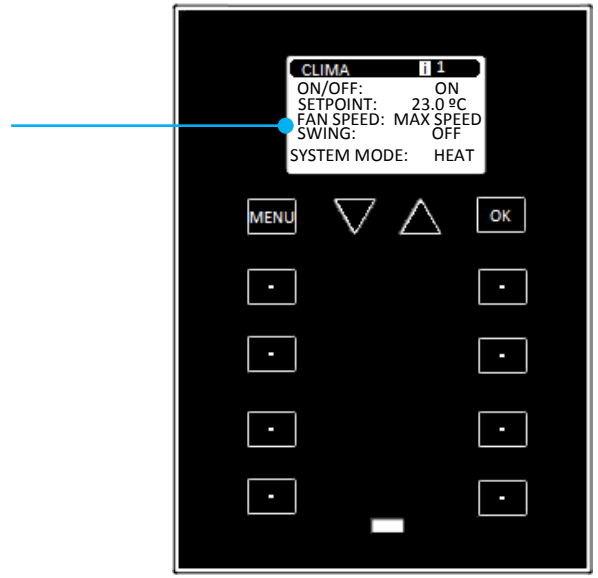
Increase/Decrease Fan Speed

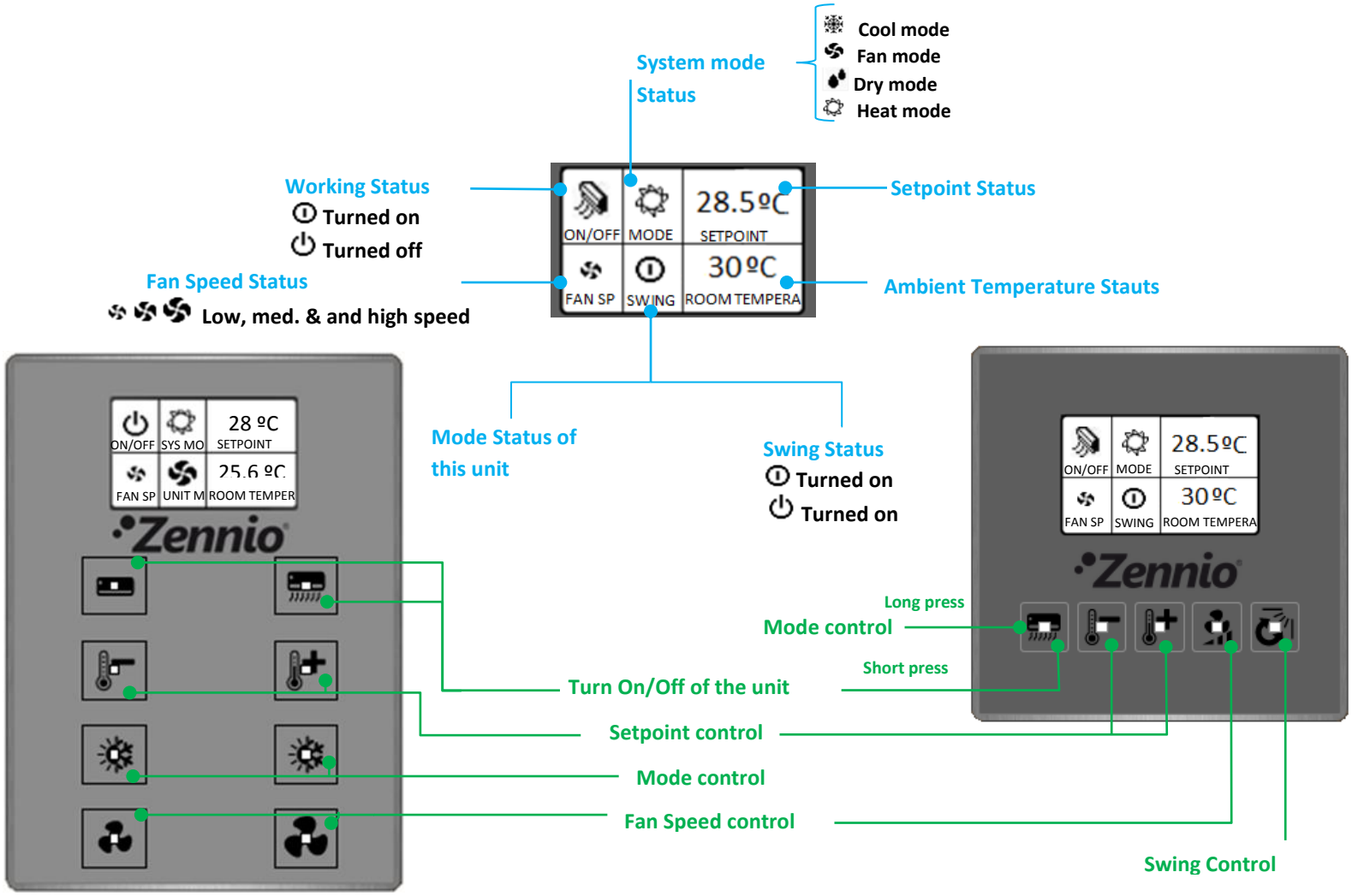
CONTROL AND INDICATOR OF SWING

Swing fixed/swing in movement



Status Indicators





Note: Two mode statuses are shown on the display, system and indoor unit indicators. Although different modes can be shown (see the table of the page 2), the indoor unit cannot work in a mode incompatible with the system mode.

Note: The mode control is done with the long press on the first button of the device. It is configured to alternate between heat and cool modes, but it is possible alternate all the modes in the remote control.

ALTERNATIVE PRODUCTS

ROOM CONTROLLER ALTERNATIVES

Z41 Lite (Ref. ZVI-Z41LIT)
Full Color Capacitive Touch Panel Lite

KNX-INTERNAL UNIT INTERFACES ALTERNATIVES

(Depends of the internal unit, will be used a different interface)

KLIC-DD (Ref. ZN1CL-KLIC-DD)
Bus KNX to Daikin Residential

Only for Daikin residential units
See compatibility table

KLIC-DA (Ref. ZN1CL-KLIC-DA)
Bus KNX to Daikin Altherma LT

Only for Daikin Altherma LT bibloc and integrated bicloc units.
See compatibility table

IRSC (Ref. ZN1CL-IRSC)
A/C Unit control device

To unidirectional communication
See compatibility table