INTEGRATIONS OF KNX DEVICES.

KNX building automation system represents an advanced and versatile solution for the intelligent control of domestic and professional environments. Thanks to its modular architecture and the ability to integrate with a wide range of devices and technologies, it offers numerous integration modes, which allow you to customize the automation based on the specific needs of users.
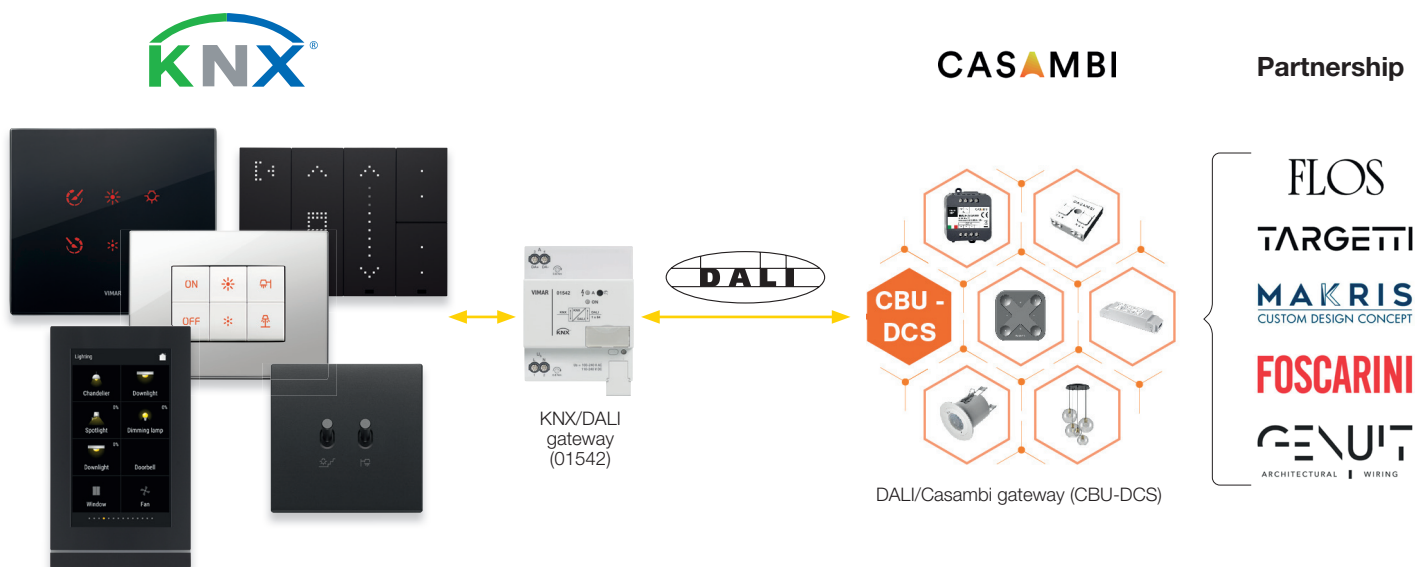
INTEGRATION WITH CASAMBI.

Casambi is a leader in wireless lighting solutions based on the Bluetooth Low Energy protocol. This technology has been adopted by many european lighting supplier, like Flos, Targetti, Makris, Foscarini, Genuit ... (see Casambi website). The control of a lighting ecosystem based on Casambi technology can also be achieved by **KNX**; the advantage of this integration is the possibility of using Vimar switches chosen from the selection of 4 different **Made in Italy wiring series**. A wide range of designs, shapes, materials, are available to offer

versatile lighting control solutions for various applications, including residential, hospitality, retail, office, healthcare and marine environments.

The control **functions** available on KNX switches are all the functions implemented in the Casambi echosystem: on/off, dimming, all lights on/off, RGB/RGBW colour management, tunable white, and even lighting scenarios.

The integration is achieved using a common language that acts as a translator between the KNX protocol and the Casambi BLE protocol: the DALI protocol. To connect the KNX switching side with the Casambi actuation side, a DALI communication must be established using the **DALI gateway** for each technology: this means that on the KNX side, item **01542** must be used and on the Casambi side, item **CBU-DCS** must be used. Each device is available exclusively in its own distribution channel.

Using the KNX/DALI gateway (01542) is it possible to control DALI resources from KNX, and therefore also control Casambi wireless resources, **which are seen as DALI resources via the DALI/Casambi gateway (CBU-DCS)**.

KNX/DALI gateway (01542)

DALI/Casambi gateway (CBU-DCS)

Partnership

Operations to enable integration.

Starting from an already configured Casambi wireless network, it is necessary to add the DALI/Casambi gateway (CBU-DCS), configuring the device profile as "CBU-DCS Dali Gateway" **with the Casambi App.**

The settings that allow to interface the devices available in the Casambi wireless network to the DALI world, making them integrable with KNX, can be found **in the Casambi App** under Other > Gateway > CBU-DCS.

KNX must already be configured and the DALI gateway (01542) must be installed, whose DALI line must be connected to one of the two DALI channels of the DALI/Casambi gateway (CBU-DCS).

The discovery that is carried out with **ETS App** allows to enlist the DALI resources (= Casambi) to be able to associate them in the KNX group addresses, as standard DALI resources.

Number	Name	Object Function	...	...	Length	C	R	W	T	U	...	Priority
0	Channel A	On / Off			1 bit	C	-	W	-	-		Low
1	Channel A	Relative Dimming			4 bit	C	-	W	-	-		Low
2	Channel A	Set Brightness Value			1 Byte	C	-	W	-	-		Low
3	Channel A	Slave Operation On / Off			1 bit	C	R	W	-	U		Low

Integration limits.

All commands given by KNX, coming from physical or from touch screen, are correctly propagated to the Casambi devices (and the status on the Casambi App is correctly updated).

Conversely, all commands given by the Casambi App (on Casambi resources) and in general by all Casambi wireless devices that can modify the status of the lamps (such as Casambi wireless commands and Casambi wireless sensors) are NOT correctly updated on KNX. This limitation is absolutely negligible when the purpose of the integration is to control the Casambi resources from the KNX ecosystem.