# User Manual



# **Atios KNX Bridge**

Control your KNX and DALI devices with easy to use Apps from anywhere, future proof, reliable and secure.



# 1 Device Overview, Buttons and LED



1	12-24 V DC Power Supply	4	DALI Bus
2	Ethernet Port with PoE	5	LED
3	KNX TP Bus	6	Button

# 1.1 LED codes

	 rebooting		 keep pressed until factory reset
	 booting		 resetting to factory defaults
	 establish IP connection		 AP Mode active
	 got IP address		 client connected to AP
-	 accessory identify		 WiFi disconnected
	 safe mode		

#### 1.2 Button functions

short press	force to reboot
long press	press for 8s until LED lights constant purple, factory reset
long press during boot	enter safe mode (ADE-KD not loading config and not starting HomeKit)

# 2 Installation

- 1. Mount KNX Bridge to the DIN Rail in the electrical cabinet.
- 2. Connect KNX Bridge to KNX TP-Bus.
- 3. Optional: Connect KNX Bridge to externally powered DALI Bus.
- 4. Connect KNX Bridge to Ethernet. If powered by Power over Ethernet, go to **3 Setup**.
- 5. Otherwise connect a 12-24V DC power source.

# 3 Setup

After connecting the KNX Bridge to Ethernet, it will obtain an IP by DHCP. Check your local network, and enter the IP, such as http://192.168.0.100 into your Browser address bar to access the Webinterface. Go to *System Settings* and change the *KNX Physical Address* to a free address in your KNX Topology.

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≡ KNX Bridge	▲ ATIOS
<ul> <li>Accessory Manager</li> <li>★ Group Monitor</li> </ul>	KNX Settings
Settings Point System	Physical Address   11:30   Bernal Address Bernal Addr
	Update Current Firmware Version: 1.01 UPDATE

Next go to *Accessory Manager* in the left sidebar, click on the (+)-Button and add an accessory. Supported accessory types can be seen below, check the following chapters for a detailed description on how to add a specific accessory type.



## 3.1 Lightbulb, Switch, Outlet

Imagine you have configured your switchable lightbulb in KNX as follows:

Group Address	Description	Datatype
0/0/1	Toggles the lamp on or off	DPT-1
0/0/2	Status, indicates if the lamp is powered on or off	DPT-1

Access the Atios KNX Bridge webinterface and add a *Lightbulb* in *Accessory Manager*. Fill out the columns with your KNX group addresses as follows:

Characteristic	Control	Status	Datatype
OnOff	0/0/1	0/0/2	DPT-1

If the Lightbulb is switched on or off in the Apple Home app, the telegram is sent to the **Control**-Group Address. If you open the Home App after a while and the status is requested, or the Lightbulb is for example controlled by the physical keypad, a KNX telegram is sent to theStatus group address, and the following status telegram is read by the KNX Bridge and updated accordingly.

3.1.1 Optional Characteristics (only for Lightbulb)

Characteristic	Control	Status	Datatype
Brightness	0/0/3	0/0/4	DPT-5
ColourTemperature	0/0/5	0/0/6	DPT-5

#### 3.2 Window Covering

Imagine you have configured a vertical window blind, curtain or awning in KNX as follows:

Group Address	Description	Datatype
0/0/1	Long Up/Down, opens or closes the Blind completely	DPT-1
0/0/2	Short Up/Down, step moves the Blind and/or adapts the tilt angle	DPT-1
0/0/3	Position, moves the Blind to a fixed position between 0-100%	DPT-5
0/0/4	Position status, indicates the current position of the Blind	DPT-5
0/0/5	Tilt Position, rotates the slats to a fixed angle between 0-100%	DPT-5
0/0/6	Tilt Position status, indicates the current tilt angle between 0-100%	DPT-5

Access the Atios KNX Bridge webinterface and add a *WindowCovering* in *Accessory Manager*. Fill out the columns with your KNX group addresses as follows:

Characteristic	Control	Status	Datatype
TargetPosition	0/0/3	-	DPT-5
CurrentPosition	-	0/0/4	DPT-5

If the Blind is opened or closed from the Apple Home app, the telegram is sent to the **Control**-Group Address of TargetPosition. If the Blind is for example controlled by a physical keypad, the KNX actuator updates the status by sending a telegram to the CurrentPosition Group Address, which is read and accordingly updated in Apple Home.

## 3.3 Door Lock

Imagine you have configured a motorized door lock, electrical latch or bolt lock in KNX as follows:

Group Address	Description	Datatype
0/0/1	Locks (1) or unlocks (0) the door	DPT-1
0/0/2	Returns the status of the lock, if it is unlocked (0) or locked (1)	DPT-1

Access the Atios KNX Bridge webinterface and add a *Door Lock* in *Accessory Manager*. Fill out the columns with your KNX group addresses as follows:

Characteristic	Control	Status	Datatype
TargetLockState	0/0/1	-	DPT-1
CurrentLockState	-	0/0/2	DPT-1

If the Door Lock is unlocked from the Apple Home app, a telegram with the value "1" is sent to the **Control**-Group Address of TargetLockState, and vice versa. If the Door Lock is for example locked by a physical key, the KNX binary input reads the cylinder state and sends a telegram with value "1" for locked to the CurrentLockState Group Address, which is read and updated in Apple Home.

#### 3.4 Garage Door

A Garage in HomeKit has – contrary to usually in KNX – only binary states. See below for a tip on how to implement this easily in KNX. Imagine you have configured a motorized garage door in KNX as follows.

<b>Group Address</b>	Description	Datatype
0/0/1	Opens (0), and closes (1) the garage.	DPT-1
0/0/2	Returns the status of the Garage; 0 = Opened; 1 = Closed.	DPT-1

Access the Atios KNX Bridge webinterface and add a *Garage* in *Accessory Manager*. Fill out the columns with your KNX group addresses as follows:

Characteristic	Control	Status	Datatype
TargetDoorState	0/0/1	-	DPT-1
CurrentDoorState	-	0/0/2	DPT-1

If the Garage is opened from the Apple Home app, a "0" telegram is sent to the **Control**-Group Address of TargetDoorState, and vice versa. If the Garage is for example closed manually by the remote, the KNX binary input reads the state and sends a "1" to the **Status**-Group Address, which is read and updated in Apple Home.

We recommend to implement a Garage in KNX with a relay actuator that sends a short impulse, and a binary input that is connected to a reed contact that has contact once the garage door is closed. If you measure the time the Garage needs to fully open, you can add this turn off delay to the binary input, and therefore get a "open" notification in Apple Home only after the time has passed / the door is physically actually open.

# 3.5 Thermostat

Group Address	Description	Datatype
0/0/1	Changes to the desired setpoint temperature.	DPT-9
0/0/2	Status of the current setpoint temperature.	DPT-9
0/0/3	Sets the operating mode to Off (0), Heat (1)	DPT-1
0/0/4	Reads the current operating mode Off (1), Heat (1).	DPT-1

Imagine you have configured your floor heating in KNX as follows:

Access the Atios KNX Bridge webinterface and add a *Thermostat* in *Accessory Manager*. Fill out the columns with your KNX group addresses as follows:

Characteristic	Control	Status	Datatype
TargetTemperature	0/0/1	0/0/1	DPT-9
CurrentTemperature	-	0/0/2	DPT-9
TargetMode	0/0/3	0/0/3	DPT-1
CurrentMode	-	0/0/4	DPT-1

If the Thermostat is switched on in the Apple Home app (blue round button), a "1" telegram is sent to the TargetMode address. If a wall-thermostat turns off the heating, a "0" is sent to the TargetMode address and the status updates accordingly in the Home App, due to the address being read as well. Similarly, the desired setpoint temperature is either set in the Home App or manually with a wall thermostat, and updated accordingly. The current temperature in the room measured by a temperature sensor is read and displayed in the Home App.

#### 3.6 Temperature Sensor

Imagine you have configured your sensor in KNX as follows:

Group Address	Description	Datatype
0/0/1	Indicates the current temperature	DPT-9

Access the Atios KNX Bridge webinterface and add a *Temperature Sensor* in *Accessory Manager*. Fill out the columns with your KNX group address as follows:

Characteristic	Control	Status	Datatype
CurrentTemperature	-	0/0/2	DPT-9

The current temperature in the room measured by a temperature sensor is sent to the Status Group Address and displayed in the Home App.

#### 3.7 Contact or Motion Sensor

Imagine you have configured your sensor in KNX as one of the following:

Group Address	Description	Datatype
0/0/1	Indicates the status of the contact sensor (0=closed, 1=opened)	DPT-1
0/0/2	Indicates the status of the motion detector (0=detected motion, 1=no motion)	DPT-1

Access the Atios KNX Bridge webinterface and add a *Contact Sensor* in *Accessory Manager*. Fill out the row with your KNX group address as follows:

Characteristic	Control	Status	Datatype
State	-	0/0/1	DPT-1

or Motion Sensor

Characteristic	Control	Status	Datatype
MotionDetected	-	0/0/2	DPT-1

#### 3.8 DALI Light

This is completely separate from the KNX integration, and allows to control any DALI ballast (Lamp, LED Strip etc.) with Apple Home. If there are multiple DALI ballasts connected to your DALI Bus they must be commissioned priorly with their respective DALI addresses, so they can be controlled separately. Commissioning is done either on the DALI ballast if it has a display, or with third-party DALI USB or network interfaces and the respective software. The DALI Bus must be powered externally, Atios KNX Bridge has no DALI power supply built in. Imagine you have a DALI ballast installed and configured as follows:

DALI Address	Description
Adr 4	Dimmable Ceiling Lamp

Access the Atios KNX Bridge webinterface and add a *DALI Light* in *Accessory Manager*. Fill out the row with your DALI address as follows:

+ CLEAR ALL	SAVE CONFIGURATION	N			
Accessories			DALI Light		
Filter by name	Filter by type	<b>*</b>	Select Ballast Ballast 4	Color Temperature Control	
DALI Light		Î			

# 4 Apple HomeKit Pairing

To add Atios KNX Bridge and all configured KNX Accessories to Apple HomeKit, scan the QR Code from the Settings page with the Apple Home App.