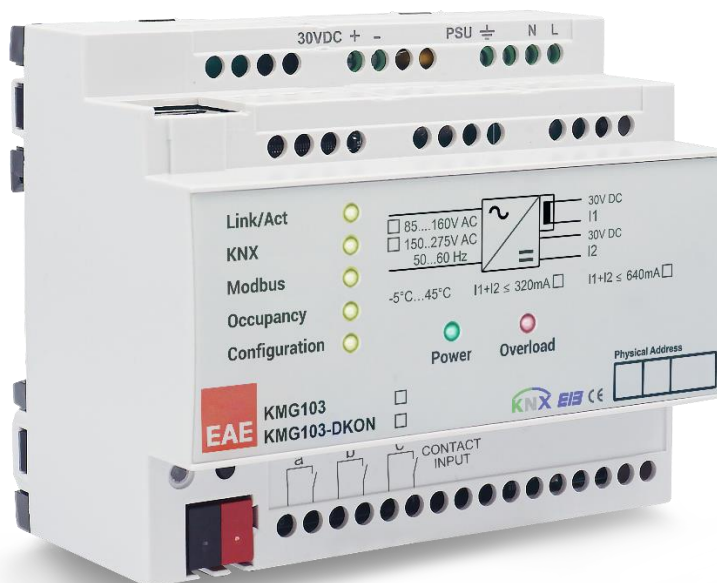# EAE KNX PSU & KNX-Modbus TCP Gateway & KNX IP Interface & Energy Saver Without Card Holder

Product Order Numbers

48192	KMG (KNX Modbus Gateway) 220V 640mA	48198	KMG (KNX Modbus Gateway) 220V 320mA
48193	KMG (KNX Modbus Gateway) 110V 640mA	48185	KMG (KNX Modbus Gateway) 110V 320mA

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EAE

Table of Contents

1.General Features

- EAE KMG103 can be used to control and monitor KNX installations via SCADA visualization software.

- The IP address of the device can be given by the DHCP server or by manual configuration.

- EAE KMG103 features a KNX IP interface that supports up to 4 simultaneous KNXnet/IP Tunneling connections.

- EAE KMG103 includes a patent-pending logic controller that enables room energy-saving system without using card holder.

- The device has 2 physical inputs for door and window sensing.

- EAE KMG103 has built-in 320 & 640 mA KNX bus power supply for KNX devices.

- KNX Power supply output is short-circuit and overload protected.

- Power, overload and reset statuses are indicated with three different LED indicators.

- Power supply can be restarted by pressing the reset button on the device.

2.Device Technology

2.1 Device Peripherals
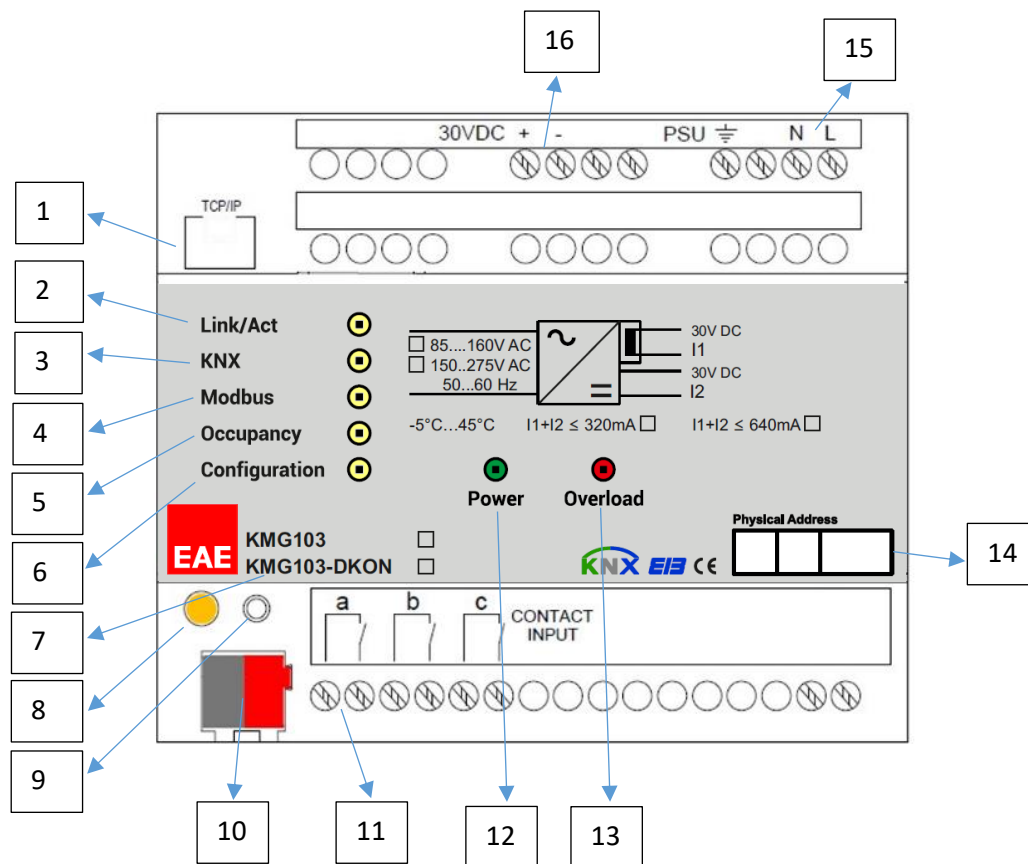
No	Function	No	Function
1	RJ45/Ethernet Connection	9	Reset / Factory Reset Button
2	Ethernet Connection/Transmission LED	10	KNX Connection Terminal
3	KNX Connection/Transmission LED	11	Dry Contact Inputs (a, b, c)
4	Modbus Connection/Transmission LED	12	Power LED
5	Occupancy State LED	13	Overload LED
6	PC Configurator Software Connection LED	14	Physical address label
7	Model Name Label	15	Power Supply Input
8	KNX Reset LED	16	KNX Auxiliary Output - 30V

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2.2. Connection Diagram
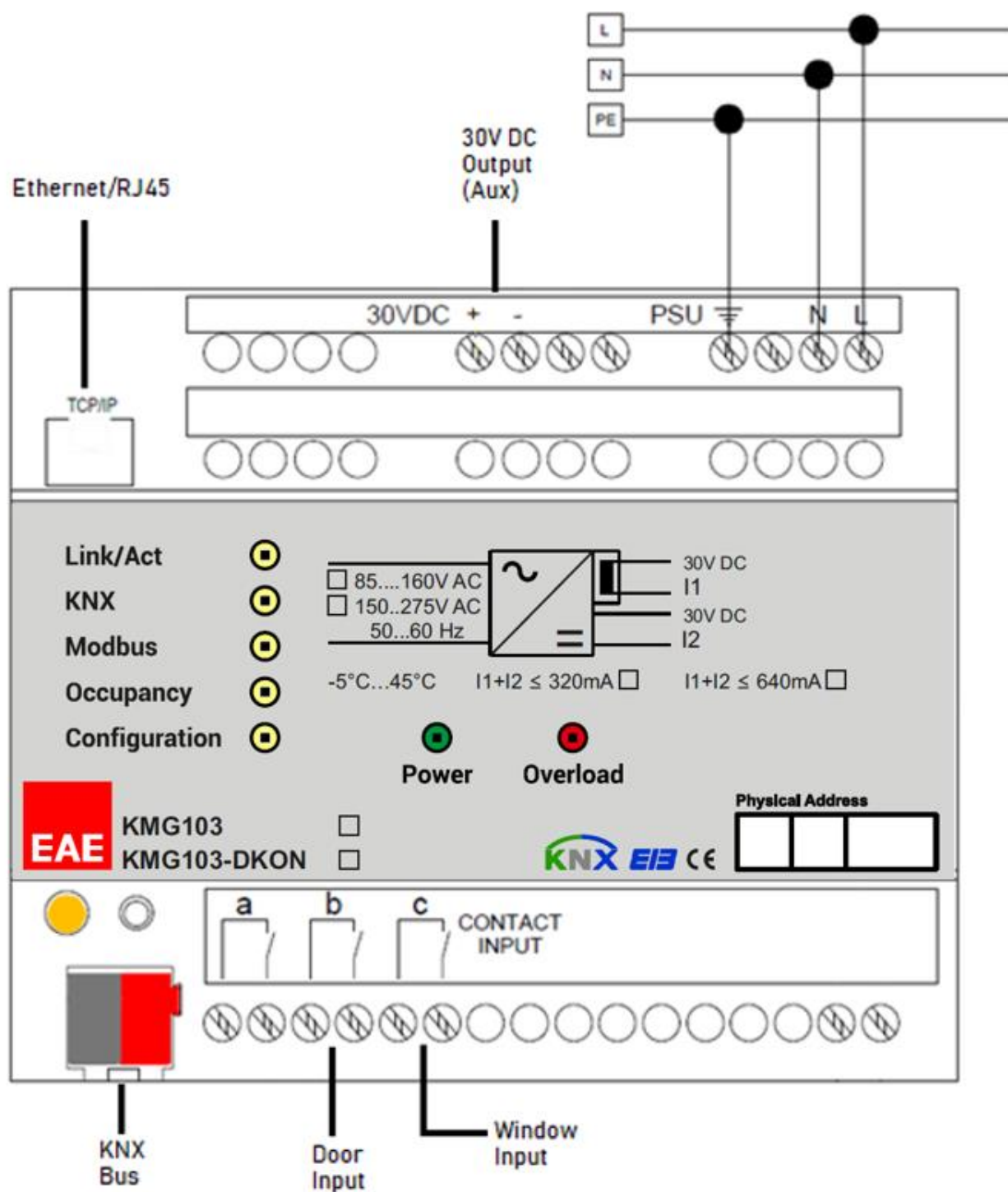
2.3. Technical Data

Type of protection	IP 20	EN 60 529
Safety class	II	EN 61 140
Over voltage category	III	EN 60 664-1
Pollution degree	2	EN 60 664-1
Main supply	Input voltage(220V)	150-275V AC, 50-60Hz
	Input voltage(110V)	85-160V AC, 50-60Hz
	Power consumption	7 W
Output	KNX BUS	30 VDC +1/-2 V, (choke)
	KNX AUX	30 VDC
	BUS + AUX Total Current	640 mA / 320 mA
	Short-circuit current for PSU320	1 A
	Short-circuit current for PSU640	1.5 A
Connections	IP Line	RJ45 socket for 10/100BaseT
	KNX Line	Bus connection terminal
Display elements	Link/Act	Ethernet Connection
	KNX	KNX Connection
	Modbus	Modbus Connection
	Occupancy	Occupancy Status
	Configuration	Configuration Software Connection Status
	Power	Led on green if there is mains voltage(110V or 220V AC).
	Overload	Led on red if the current output(KNX + AUX) is above 320 or 640 mA.
Operating elements	Reset Button – for KNX Line reset	
Installation	35mm DIN rail mount	EN 60 715 TH 35-75
Temperature range	Operation	-5° C + 45° C
	Storage	-20° C + 60° C
Humidity		Max. 93 % non condense
Dimensions	h x W x L	66 mm x W x 90 mm
	Width W in mm	108 mm
	Width W in units (18 mm modules)	6 modules
Box	Plastic PA66 housing grey	
CE	in accordance with EMC and low voltage guidelines Device complies with, EN 50090-2-2, IEC 60664-1	

NOTE: KMG devices must be configured using the appropriate version of the KMG Configurator software**. If the configurator version and the device firmware version are not compatible, configuration files cannot be uploaded to the device**. Settings such as IP Config, Object Table, Hotel State Machine, and Device Management are only accessible through their respective matching configurator versions. The KMG Module Configurator software can be downloaded from the EAE Technology website.

Device Firmware Version	Compatible Configurator Version
KMG Firmware v1.4.x	KMG Configurator v1.1.x
KMG Firmware v1.5.x	KMG Module Configurator v1.2.x

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2.4. Technical Drawing
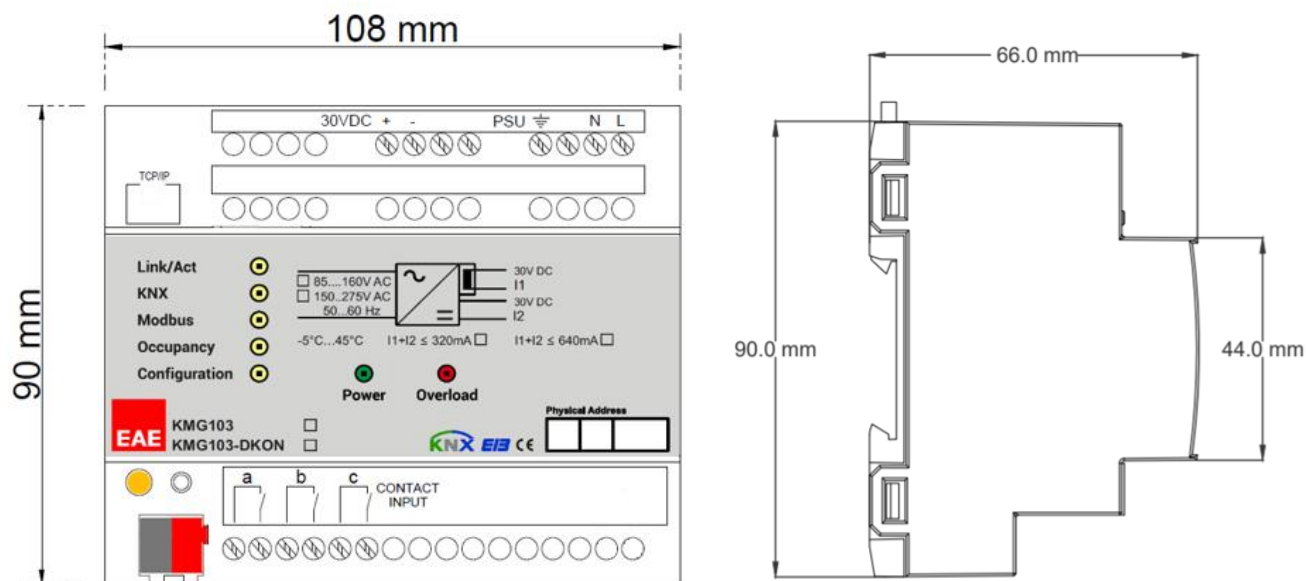
3. Settings

KMG103 is programmed using its dedicated configurator software. The required configurator version depends on the device firmware.

Device Firmware Version	Compatible Configurator Version
KMG Firmware v1.4.x	KMG Configurator v1.1.x
KMG Firmware v1.5.x	KMG Module Configurator v1.2.x

If the configurator version and the device firmware version are not compatible, configuration files cannot be uploaded to the device.

See below for a screenshot of the KMG Module Configurator v1.2.5 interface.
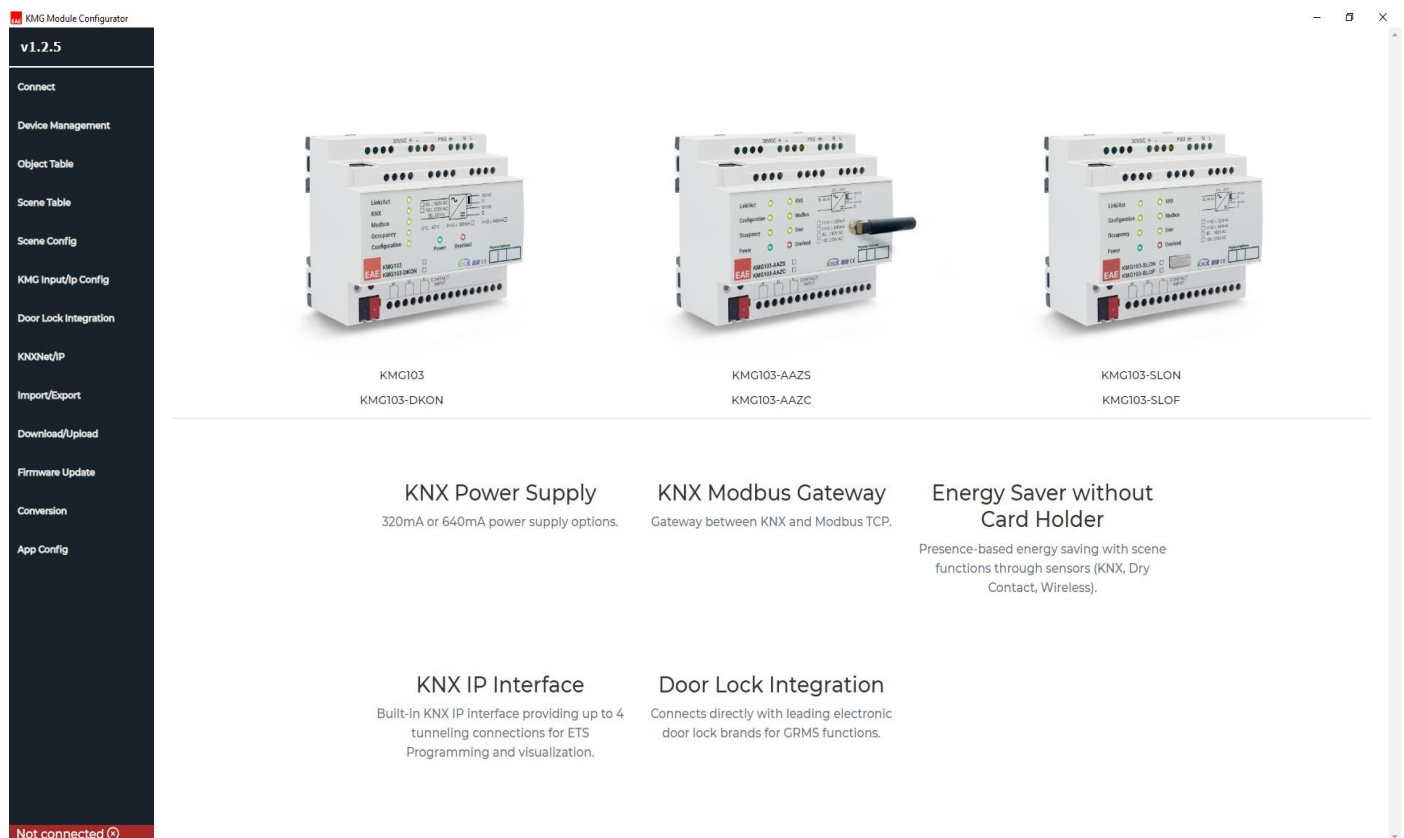
3.1. Connect

This page is used to connect to the KMG103 device to execute operations.

The default IP address for the device is **192.168.1.100**

IP Address: Device local IP address should be entered here.

NOTE: If device IP address is unknown and it's not reachable through 192.168.1.100, please press and hold the programming button for approximately 20 seconds. Device will be rebooted with factory defaults.
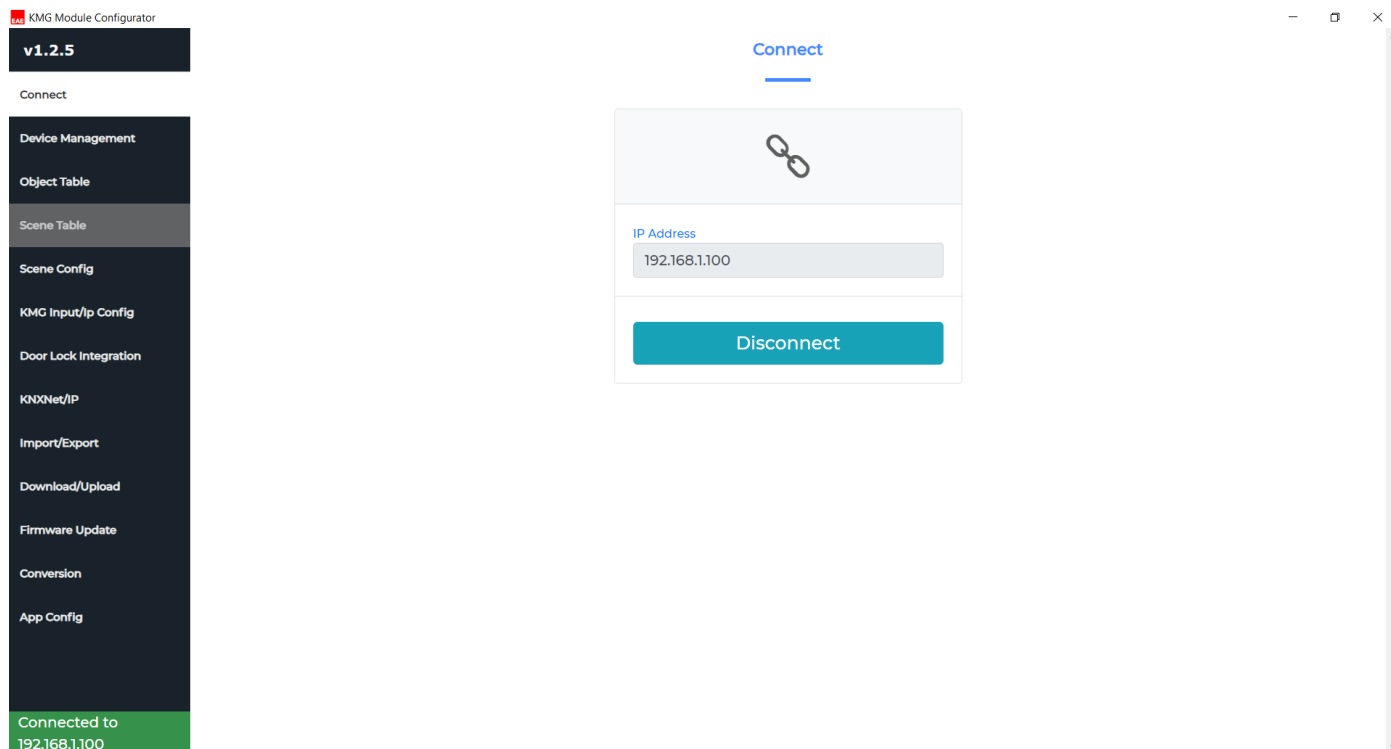
If the connection is successful, 'Connection Success' information will be displayed by the configurator.

If the device IP address is entered incorrectly or it is disconnected from the configurator/network, the error information will be displayed as shown below.

3.2. Device Management

In this page, following functions can be used interactively. The Configurator must be connected to the device to execute "Device Management" operation.

1. IP Change   2. Version Info   3. Mode Settings   4. Factory Reset

3.2.1. IP Change

The IP address of the device can be changed from this section. However, if you only want to change the IP while keeping the current configuration, you need to set it from the "KMG Input/IP Config" section and then download the configuration to the device.

IP Change command resets the configuration file inside KMG!

IP Address: It is an address used to uniquely identify a device on an IP network.

Subnet Mask: It should be **255.255.255.0** by default.

Default Gateway: IP address of the network router/access point.

If the **Send** button is pressed, the following warning pop-up will be displayed.

If the **Yes** button is pressed, the alert message will be displayed in case of a successful "IP Change" operation.

3.2.2. Version Info

You can read the device mode (either application or bootloader) and the version of each mode.
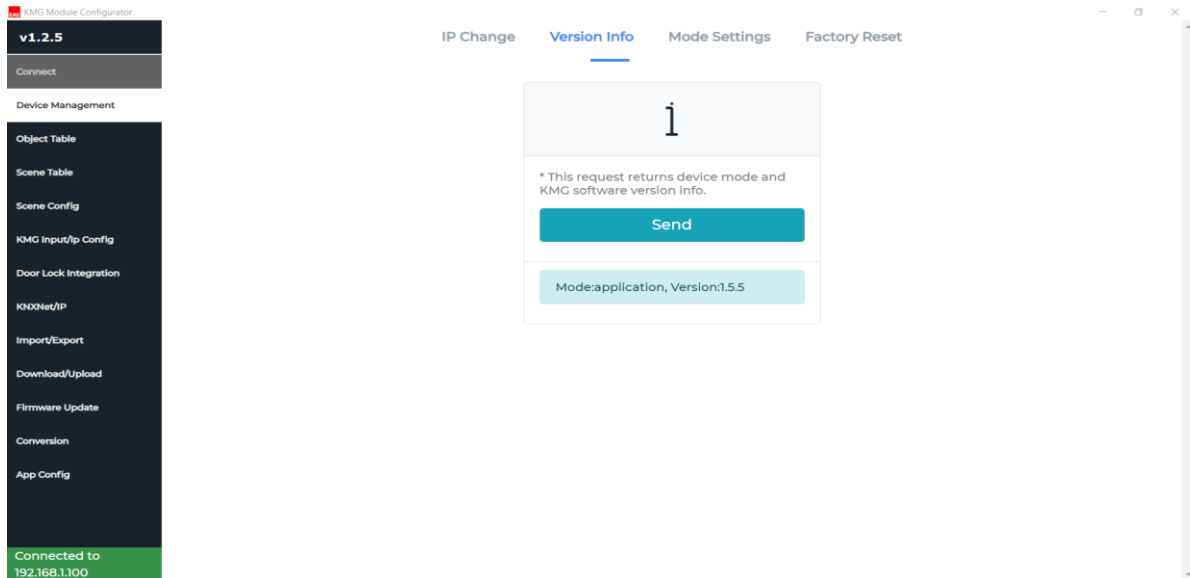
The mode and firmware version of the device will be read if the **Send** Button is pressed.

3.2.3. Mode Settings

The device has 2 working modes: "application" and "bootloader". You can switch between these modes.
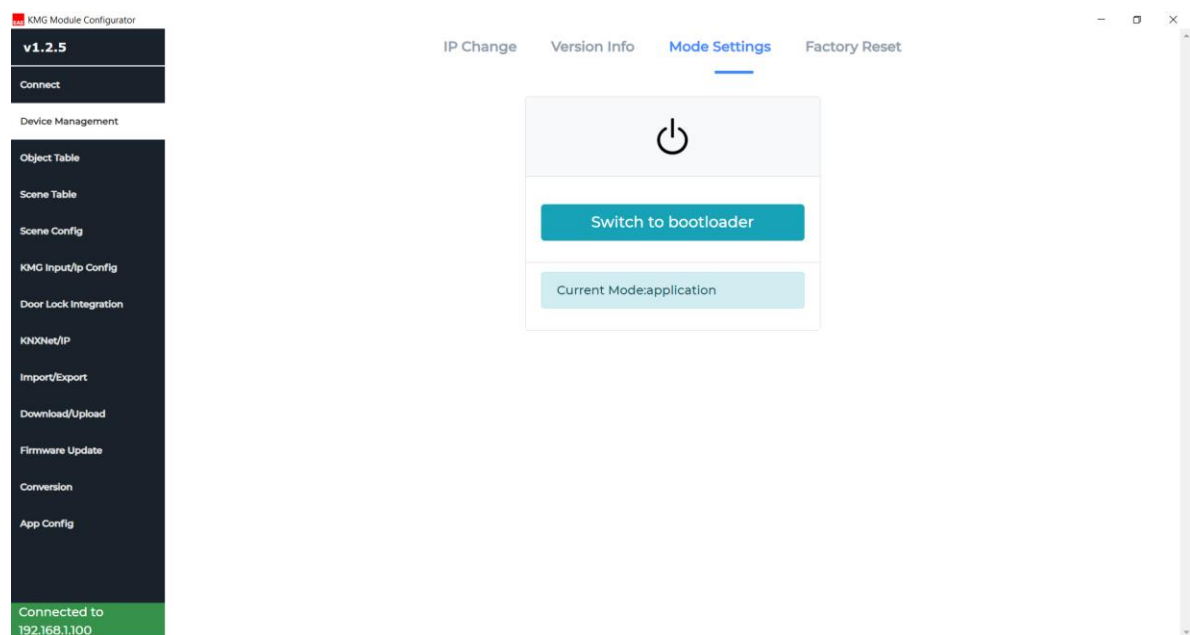
3.2.4. Factory Reset

"Factory Reset" command erases configuration and project files from the device. After executing the "Factory Reset" command, the default IP address is **192.168.1.100** for the device.

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3.3. Object Table

This page is used to create new objects which it is KNX only or KNX with Modbus Register as well. They can be used in Scenes, Inputs, Checkin-out and Occupancy status.

Name: Object names can be defined in this field. Object name must be less than or equal to 30 characters and must be unique for "NONE" Register type.
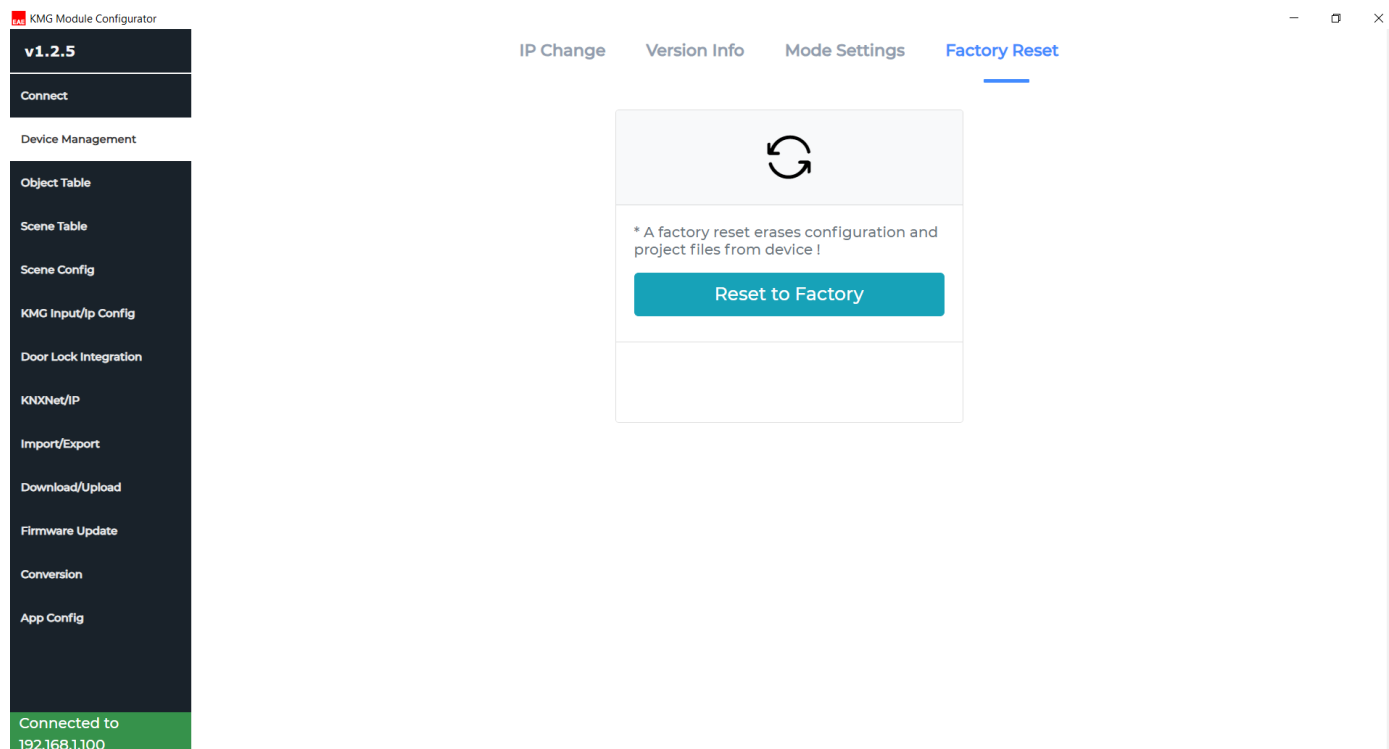
Register Type: Four types of registers can be set in this field. If Modbus will not be used, "NONE" option can be selected, which will also disable the "Offset" field. Modbus register specifications are shown in the table below.

Modbus Register Type	Access	Size	Modbus Address Prefix	Device Modbus Address Range
Coil Register	Write/Read	1 bit	00xxx	0 – 999 for each reg. type
Discrete Input	Read-only	1 bit	10xxx	
Input Register	Read-only	8, 16, 24, 32 bits (1, 2, 3, 4 Bytes)	30xxx	
Holding Register	Write/Read	8, 16, 24, 32 bits (1, 2, 3, 4 Bytes)	40xxx	

Offset: The written value will be added to the Modbus address according to the Modbus register type.

e.g. 2 Holding Register > Offset 12

This object will be writable and readable through **40012** Modbus address on Modbus.

NOTE: 4 Byte Modbus Registers require 2 addresses.

e.g. If Holding Register 60 is selected for 4 Byte use, then the 60th and 61st addresses will be utilized. Consequently, the next address should start from the 62nd address.

Object Size: Selected size must be compatible with the Modbus Register and KNX Group Address. Please refer to the table above.

KNX Group Address: Allowed range is from 0/0/1 to 31/7/255. Up to 10 addresses can be entered for a single object.

Control and Status group addresses should be written into one object, following this prefix format: x/y/z, a/b/c, d/e/f. The first address is designated as the control, while the remaining ones are for status.

HSM Property Type: It is used to determine whether the object is a KNX Input for the Hotel State Machine or just a control element.

NON-HSM	The object will be used as a control element. This is the default option if the object is not associated with Presence, Window, or Door KNX Input.
PRESENCE INPUT WINDOW INPUT DOOR INPUT	Up to <u>10 objects</u> can be assigned to each Input. The Register Type must be set to "NONE", "DISCRETE INPUT" or "COIL REGISTER" if Presence, Door, or Window Inputs are to be used.

Table Properties for Object Table

If any rows right clicked:	If any row or cell right clicked
1- New row(s) can be added	1- Cell(s) or Row(s) can be copied
2- Row(s) can be deleted	2- Cell(s) or Row(s) can be pasted

You can move a row by clicking and holding the row number. When the move icon appears, you can drag it up or down.

KMG Module Configurator						
v1.2.5		Name	Register Type	Offset	HSM Property Type	Object Size	KNX G. Address

	Name	Register Type	Offset	HSM Property Type	Object Size	KNX G. Address
1	Presence Input	COIL REGISTER	0	PRESENCE INPUT	1 bit	1/0/1
2	Presence Activation	COIL REGISTER	1	NON-HSM	1 bit	1/0/2
3	Door Input 1	COIL REGISTER	2	DOOR INPUT	1 bit	5/0/5
4	Door Input 2	COIL REGISTER	3	DOOR INPUT	1 bit	5/0/6
5	Window Input 1	COIL REGISTER	4	WINDOW INPUT	1 bit	5/0/8
6	Window Input 2	COIL REGISTER	5	WINDOW INPUT	1 bit	5/0/9
7	Occupancy	COIL REGISTER	6	NON-HSM	1 bit	7/7/6
8	Check in-out	COIL REGISTER	7	NON-HSM	1 bit	5/0/10
9	HSM Activation	COIL REGISTER	8	NON-HSM	1 bit	7/7/0
10	Switch A1	COIL REGISTER	9	NON-HSM	1 bit	3/0/1, 3/0/2
11	Switch A2	COIL REGISTER	10	NON-HSM	1 bit	3/0/4, 3/0/5
12	Switch B1	COIL REGISTER	11	NON-HSM	1 bit	3/0/7, 3/0/8
13	Switch B2	COIL REGISTER	12	NON-HSM	1 bit	3/0/10, 3/0/11
14	Switch C1	COIL REGISTER	13	NON-HSM	1 bit	3/0/13, 3/0/14
15	Switch D1	COIL REGISTER	14	NON-HSM	1 bit	3/0/16, 3/0/17
16	Switch D1	COIL REGISTER	15	NON-HSM	1 bit	3/0/19, 3/0/20
17	Switch D1	COIL REGISTER	16	NON-HSM	1 bit	3/0/22, 3/0/23
18						

Menu items: Connect, Device Management, Object Table, Scene Table, Scene Config, KMG Input/Ip Config, Door Lock Integration, KNXNet/IP, Import/Export, Download/Upload, Firmware Update, Conversion, App Config

Connected to 192.168.1.100

You can multiply single or multiple cells by left clicking and dragging up or down before releasing.

NOTE: The offset numbers will increase if you drag the cell down and decrease if you drag it up.

14	Switch C1	COIL REGISTER	13	NON-HSM	1 bit	3/0/13, 3/0/14
15	Switch D1	COIL REGISTER	14	NON-HSM	1 bit	3/0/16, 3/0/17
16	Switch D1	COIL REGISTER	15	NON-HSM	1 bit	3/0/19, 3/0/20
17	Switch D1	COIL REGISTER	16	NON-HSM	1 bit	3/0/22, 3/0/23

3.4. Scene Table

	Scenes	Object Name	Value	Object Size	KNX G. Address
1	1-Welcome Scene	Socket-CR-0	1	1 bit	1/4/0, 1/5/0
2	1-Welcome Scene	Air Conditioner-CR-13	1	1 bit	1/4/19, 1/5/19
3	1-Welcome Scene	Applique-CR-3	1	1 bit	1/4/3, 1/5/3
4	1-Welcome Scene	Hall Lighting-HR-0	100	1 byte percentage	1/4/30
5	1-Welcome Scene	Set Point-HR-1	23	2 byte KNX float	1/4/31, 1/4/32
6	2-Pre-Welcome Scene	Socket-CR-0	1	1 bit	1/4/0, 1/5/0
7	2-Pre-Welcome Scene	Hall Lighting-HR-0	50	1 byte percentage	1/4/30
8	3-Leave Scene Primary	Applique-CR-3	0	1 bit	1/4/3, 1/5/3
9	3-Leave Scene Primary	Hall Lighting-HR-0	0	1 byte percentage	1/4/30
10	4-Leave Scene Secondary	Air Conditioner-CR-13	0	1 bit	1/4/19, 1/5/19
11	4-Leave Scene Secondary	Socket-CR-0	0	1 bit	1/4/0, 1/5/0
12	5-Window Open Scene	Air Conditioner-CR-13	0	1 bit	1/4/19, 1/5/19
13	6-Checkout Scene	Applique-CR-3	0	1 bit	1/4/3, 1/5/3
14	6-Checkout Scene	Hall Lighting-HR-0	0	1 byte percentage	1/4/30
15	6-Checkout Scene	Air Conditioner-CR-13	0	1 bit	1/4/19, 1/5/19
16	6-Checkout Scene	Blind-HR-2	100	1 byte percentage	1/4/34, 1/4/34
17	6-Checkout Scene	Thermostat Button Lock -CR-22	0	1 bit	1/4/55
18	6-Checkout Scene	Socket-CR-0	0	1 bit	1/4/0, 1/5/0
19	7-Service Entry Scene	Socket-CR-0	1	1 bit	1/4/0, 1/5/0
20	7-Service Entry Scene	Hall Lighting-HR-0	100	1 byte percentage	1/4/30
21	7-Service Entry Scene	Thermostat Button Lock -CR-22	1	1 bit	1/4/55
22	8-Check-in Scene	Socket-CR-0	1	1 bit	1/4/0, 1/5/0
23	8-Check-in Scene	Air Conditioner-CR-13	1	1 bit	1/4/19, 1/5/19
24	8-Check-in Scene	Set Point-HR-1	25	2 byte KNX float	1/4/31, 1/4/32
25	8-Check-in Scene	Blind-HR-2	0	1 byte percentage	1/4/34, 1/4/34
26					

This page is used to set the parameters for hotel logic functions (Hotel State Machine).

Scenes: It is used to select scene types. The detailed information is written in chapter "3.4.1. Scenes"

Object Name: This is used to select objects for scenes that are created on the Object Table page.

Value: It is used to determine the object value of the relevant scene.

Object Size: This field is disabled and for information only. It is used to display the object size of the object, which is taken from the Object Table page.

KNX Group Address: This field is disabled and for information only. It is used to display the KNX group address of the object, which is taken from the Object Table page.

3.4.1. Scenes

Scenes consist of objects that can be added by the integrator. Each scene can be triggered based on window, door, and presence inputs. The specific details of each scene can be arranged according to the customer's wishes/needs. Before explaining the scenarios, there are a few terms that need to be clarified.

- **Occupied:** It means the guest is inside.
- **Checked-in**: It means this information is passed to KMG via card or BMS/PMS.

3.4.1.1. Pre-Welcome

The Pre-Welcome Scene is designed to enhance the guest's experience upon entering the room. As soon as the guest enters, the lighting in the room can be automatically turned on, creating a warm and welcoming atmosphere.

This scene can be activated if the room is **checked-in** and **not occupied**. This scene will be executed if the following actions, listed below, are performed.

1. The door is opened with a guest card while the room is empty.
2. Pre-Welcome Scene will be activated.

3.4.1.2. Welcome

Continuing from the Pre-Welcome Scene, the Welcome Scene activates additional features in the room. The lighting, air conditioning, curtains, and power outlets are activated to create a personalized and comfortable environment for the guest.

This scene can be activated if the room is **checked-in** and **not occupied**. This scene will be executed if the following actions, listed below, are performed.

1. The door is opened with a guest card while the room is empty.
2. Pre-Welcome Scene is activated.
3. The guest closes the door, and the presence sensor waits for presence detection.
4. Movement/Presence is detected within the "PRESENCE WAIT TIME".
5. Welcome Scene will be activated.

3.4.1.3. Leave Primary

When the guest leaves the room, the Leave Primary Scene is activated and remains active until the next periodic scenario. All lighting, air conditioning, and power outlets can be turned off to conserve energy.

This scene can be activated if the room is **checked-in** and **occupied/not occupied**. This scene will be executed if the following actions, listed below, are performed.

Not occupied:

1. The door is opened with a guest card while the room is empty.
2. Pre-Welcome Scene is activated.
3. The guest closes the door, and the presence sensor waits for presence detection.
4. No presence/movement is detected with the "PRESENCE WAIT TIME".
5. Leave Scene will be activated taking "LEAVE SCENE PRIMARY DELAY" into consideration.

Occupied:

1. Welcome Scene is activated. The room is occupied.
2. The guest leaves the room and closes the door.
3. The presence sensor waits for presence/movement detection.
4. No presence/movement is detected within the "PRESENCE WAIT TIME".
5. Leave Scene Primary will be activated taking "LEAVE SCENE PRIMARY DELAY" into consideration.

3.4.1.4. Leave Secondary

The Leave Scene Secondary is an extension of the Leave Scene Primary, designed to provide additional flexibility. For instance, consider a scenario involving air conditioning on a hot summer day. It may not be desirable for the air conditioning to shut off immediately when the guest leaves the room. The Leave Scene Secondary allows for a delay before certain features, such as the air conditioning, are deactivated. This way, if the guest returns shortly, the room remains comfortable. If the guest does not return within the specified timeframe, the scene will be activated, and the air conditioning will be turned off to conserve energy. Several other features, such as room fragrance, music/audio system, and smart appliances, can be included in this scenario if desired.

This scene can be activated if the room is **checked-in** and **occupied/not occupied**. This scene will be executed if the following actions, listed below, are performed.

Not occupied:

1. The door is opened with a guest card while the room is empty.
2. Pre-Welcome Scene is activated.
3. The guest closes the door, and the presence sensor waits for presence detection.
4. No presence/movement is detected with the "PRESENCE WAIT TIME"
5. Leave Scene Primary will be activated taking "LEAVE SCENE PRIMARY DELAY" into consideration.
6. Leave Scene Secondary will be activated taking "LEAVE SCENE SECONDARY DELAY" into consideration.

Occupied:

1. Welcome Scene is activated. The room is occupied.
2. The guest leaves the room and closes the door.
3. The presence sensor waits for presence/movement detection.
4. No presence/movement is detected within the "PRESENCE WAIT TIME".
5. Leave Scene Primary will be activated taking "LEAVE SCENE PRIMARY DELAY" into consideration.
6. Leave Scene Secondary will be activated taking "LEAVE SCENE SECONDARY DELAY" into consideration.

3.4.1.5. Window Open

The Window Open Scene is a practical feature designed to enhance energy efficiency and guest comfort in the hotel room. When the room's window or balcony door is opened, the air conditioning is automatically adjusted to a predefined lower setting or turned off to save energy.

This scene can be activated if the room is **checked-in** and **occupied**. This scene will be executed if the following actions, listed below, are performed.

1. The window is opened while the room is occupied.
2. The room's state is saved just before the window is opened.
3. Window Open Scene will be activated, taking "WINDOW OPEN DELAY TIME" into consideration.
4. If the window is closed again, the room will return to its last saved state.

3.4.1.6. Checkout

The Checkout Scene is designed to conserve energy and prepare the room for the next guest. When a guest checks out, the PMS communicates with the GRMS to close the curtains, adjust the room temperature, turn off all lights and electrical appliances, and perhaps even activate a cleaning mode for the room.

This scene can be activated if the checked-in room is **not occupied,** and it has received **"0"** from check-in/out object or **occupied** and **checked-out**. This scene will be executed if the following actions, listed below, are performed.

Not occupied:

1. The reverse of the active state information (generally 0) is written to "CHECK IN/OUT OBJECT".
2. Checkout Scene will be activated.

Occupied:

1. The reverse of the active state information (generally 0) is written to "CHECK IN/OUT OBJECT".
2. The door is opened and closed.
3. No presence/movement is detected with the PRESENCE WAIT TIME.
4. Checkout Scene will be activated.

3.4.1.7. Service Entry

The Service Entry Scene is a specific mode designed for the convenience of housekeeping. For instance, the lighting could be set to a bright level to aid in cleaning, the curtains could be drawn back, and the air conditioning could be adjusted to a comfortable working temperature. Certain features might be disabled in this mode also.

This scene can be activated if the room is **checked-out** and **not occupied.** This scene will be executed if the following actions, listed below, are performed.

Presence Detection:

1. The door is opened with a staff card while the room is empty.
2. Service Entry Scene will be activated.
3. The staff closes the door, and the presence sensor waits for presence detection.
4. Presence/Movement is detected within the "PRESENCE WAIT TIME".
5. The device will keep its current state.

Presence Absence:

1. The door is opened with a staff card while the room is empty.
2. Service Entry Scene will be activated.
3. The staff closes the door, and the presence sensor waits for presence detection.
4. No presence/movement is detected within the "PRESENCE WAIT TIME".
5. Checkout state will be activated.

3.4.1.8. Check-in

The Check-in Scene is designed to create a welcoming atmosphere for the guest. When a guest checks in, the KMG103 prepares the room according to the guest's preferences, which could include such as adjusting the room temperature or opening the curtains.
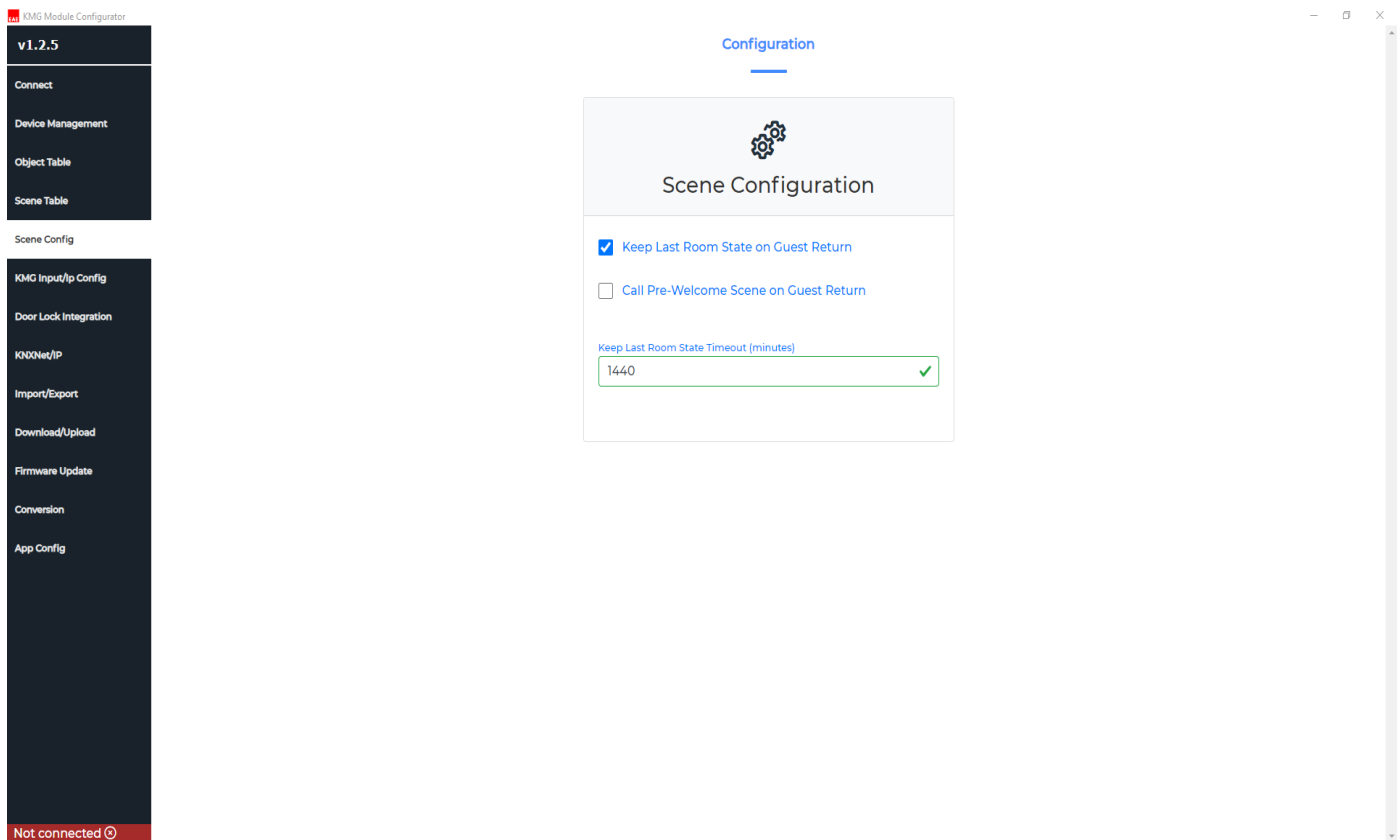
This scene will be executed if the following actions, listed below, are performed.

Not occupied:

1. The active state information (generally 1) is written to "CHECK IN/OUT OBJECT".
2. Check-in Scene will be activated.

3.5. Scene Config

Additional functions can be configured on this page.

Keep Last Room State on Guest Return: When enabled(checked), the KMG saves the last state of the objects in the **Leave Scene Primary**.

 The state is saved as soon as the occupancy value is reads as 0 after the guest is detected leaving the room.

If a guest returns before the **Keep Last Room State Timeout**, the previously saved state will be restored; otherwise, the configured **Pre-Welcome** and **Welcome** scenes will be triggered.

 The changes made in the **Service Entry Scene** during this period will not affect the last saved room state.

Call Pre-Welcome Scene on Guest Return: This parameter can be set if the **Keep Last Room State on Guest Return** parameter is enabled.

If enabled(checked), when a guest returns to the room, the configured **Pre-Welcome** scene will be called before restoring the previously saved state.

If disabled(unchecked), when a guest returns to the room, the previously saved state will be restored directly, and the configured **Pre-Welcome** scene will not be triggered.

If the guest returns after the "Keep Last Room State Timeout", the configured **Pre-Welcome** and **Welcome** scenes will be triggered normally.

Keep Last Room State Timeout (minutes): Min = 1, Max = 1440

This parameter can be set if the **Keep Last Room State on Guest Returns** parameter is enabled.

This parameter determines how long the room's last state will be retained after a guest leaves.

The timer is set when the occupancy value is read as 0 after the guest leaves the room.

The **Keep Last Room State Timeout** timer operates independently of the **Leave Scene Primary** and **Leave Scene Secondary Delay** parameter values.

When the guest returns to the room, scenes are triggered as explained in the **Keep Last Room State on Guest Retur**n parameter.

3.6. KMG Input / IP Config

3.6.1. Input Overview

In this page, sensing inputs can be selected.

Also, check-in, occupancy, and hotel state machine (HSM) state activation/deactivation can be configured.

The active state of the KNX Inputs, displayed in the blue tables, can be modified through table interaction for Presence, Window and Door Inputs.

The delay/timeout duration for various parameters can also be set.

3.6.2. KMG103 Input Parameters

All input/status objects are 1-bit only.

PRESENCE INPUT: The device does not support conventional presence detection inputs such as dry contact or AC signal. Presence detection is handled exclusively via KNX Input. When KNX Input is active, the Presence Disable Input function becomes available, and a corresponding KNX object must be assigned.

PRESENCE DISABLE INPUT: When "KNX Input" is selected, the Presence Disable Input will be active. This is for status.

WINDOW INPUT: Window sensing input type can be selected. ("Dry Contact" or "KNX Input").

DOOR INPUT: Door sensing input type can be selected. (Dry Contact or KNX)

CHECK IN/OUT OBJECT(STATE): It is used to enable/disable Check IN/OUT function. If disable selected, Device will react on Checked-IN mode and Check-out and Service Entry scenes will not be executed. Active state may be 1 or 0.

OCCUPANCY STATUS OBJECT: It is used to enable/disable Occupancy Status from KNX and/or Modbus object.

OCCUPANCY AFTER RESET: It is used to select the occupancy state after mains voltage return (Occupied, Vacant and Last Known). This parameter is enabled if **OCCUPANCY STATUS OBJECT** is enabled.

HSM DISABLE INPUT OBJECT: It is used to enable/disable HSM Deactivation. If Disabled, HSM function will never be disabled. HSM disable function allows the device work as KNX-Modbus Gateway mode. Thus, all scenes according to inputs will not be executed.

HSM STATE AFTER RESET: It is used to select the HSM state after mains voltage return (Enabled, Disabled and Last Known). This parameter is enabled if **HSM DISABLE INPUT OBJECT** is enabled.

IMMEDIATE WELCOME AFTER DOOR CLOSE: Welcome scene will be called as soon as the door is closed.

3.6.3. Delay/Timeout Parameters

LEAVE SCENE PRIMARY DELAY: This parameter allows for a delay in activating the "Leave Scene Primary" scene. If this parameter is set to 0, it means the "Leave Scene Primary" will be activated immediately if no presence is detected just after the "PRESENCE WAIT TIME". If the parameter is set to a value greater than 0, this value will be added to the "PRESENCE WAIT TIME" before the "Leave Scene Primary" is activated.

LEAVE SCENE SECONDARY DELAY: This parameter allows for a delay in activating the "Leave Scene Secondary" scene. After the "Leave Scene Primary" is activated, the device will wait for the duration of the "LEAVE SCENE SECONDARY DELAY" before activating the "Leave Scene Secondary". If this parameter is set to 0, both the "Leave Scene Secondary" and "Leave Scene Primary" will be activated simultaneously.

PRESENCE WAIT TIME: This parameter defines the duration of wait time to detect presence.

- If presence is detected within the given timeframe, the device will either activate the "Welcome Scenario" or maintain it's current state if it has already been activated.
- If no presence is detected within the given timeframe, the device action is as follows;
    - For check-in state, "Leave Scene Primary" will be called, taking into account the "LEAVE SCENE PRIMARY DELAY".
   - For checkout state, "Checkout Scene" will be called.

WINDOW OPEN DELAY TIME: When the window is opened, the device will wait for the "WINDOW OPEN DELAY TIME" before activating the "Window Open Scene". If the window is closed before "WINDOW OPEN DELAY TIME", the scene will not be activated.

WINDOW SCENE REPEAT PERIOD: This parameter value can be set 0 or greater than 0.

- If set to 0, the "Window Open Scene" will not be called periodically.
- If set to a value greater than 0, the "Window Open Scene" will be called periodically.

PRESENCE SENSOR ACTIVATION DELAY TIME: The presence sensor is activated as soon as the door is closed. The device will disregard any incoming sensor values during the "PRESENCE SENSOR ACTIVATION DELAY TIME".

3.6.4. IP Config
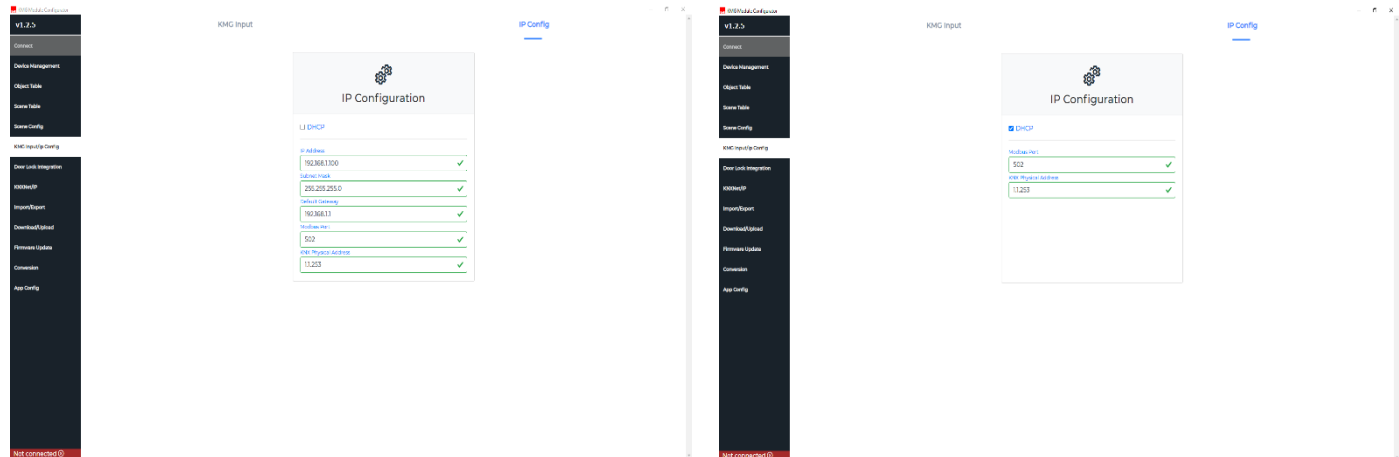
IP Address: It is an address used to uniquely identify a device on an IP network.

Subnet Mask: It should be **255.255.255.0** by default.

Default Gateway: IP address of the network router/access point.

Modbus Port : It is used to define Modbus access port. Default port number is **502.**

KNX Physical Address : It is used to define the device physical address on the KNX network. Physical address can not end with zero. E.g. ~~15.15.0~~

DHCP : If this option selected, IP address of the device will be obtained by the DHCP server of the router/access point.

3.7 Door Lock Integration

 The device includes a Wireless Door lock Integration feature; please contact your sales representative for more information.

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3.8. KNXnet/IP

EAE KMG103 features a KNX IP interface that supports up to 4 simultaneous tunneling connections over KNXnet/IP.

The KNX IP interface functionality provided by the device does not correspond to a KNX IP router. It operates strictly as a KNX IP interface and supports communication via KNXnet/IP tunnelling. Routing between KNX lines is not supported.
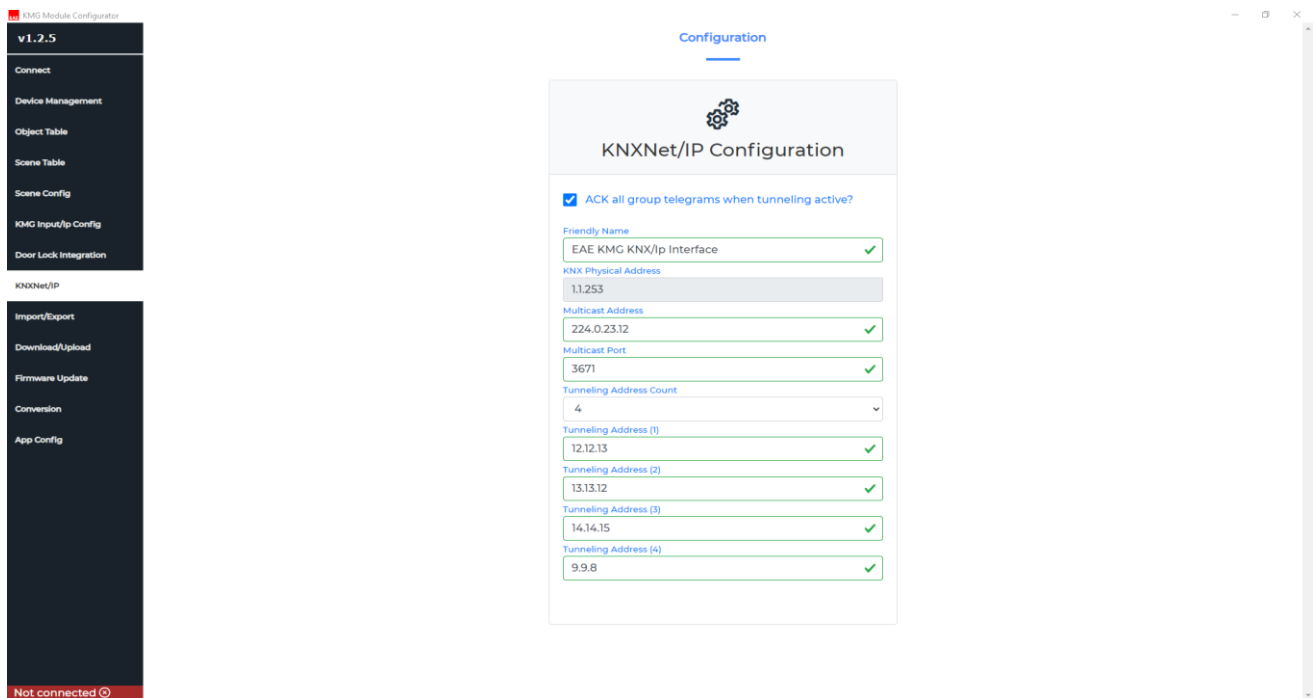
ACK all group telegrams when tunneling active: if this option is enabled, all group telegrams seen on the bus will be acknowledged when the tunneling is active, regardless of their source and destination addresses.

By acknowledging all group telegrams, the overall traffic on the KNX bus can be reduced.

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With KNXnet/IP tunneling support, the commissioning of KNX devices connected to the KMG103, the monitoring of group traffic, and the control of device statuses can all be performed via ETS.
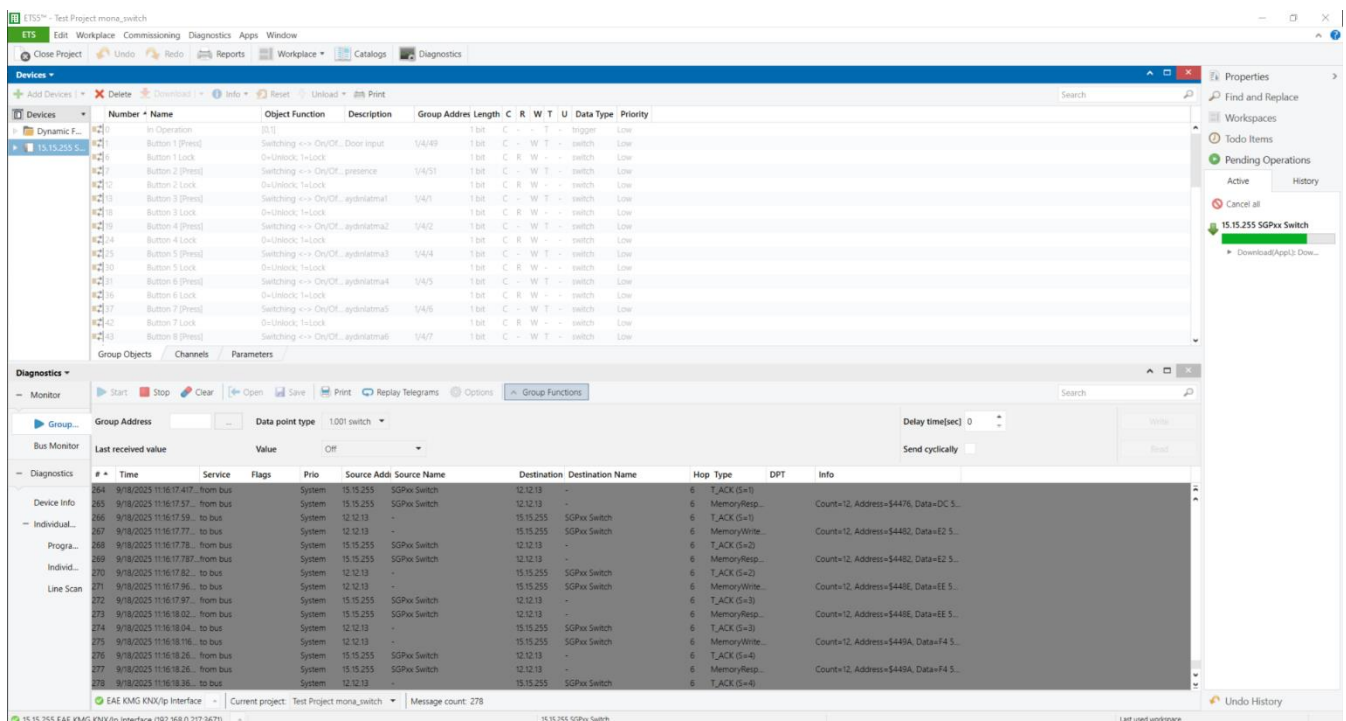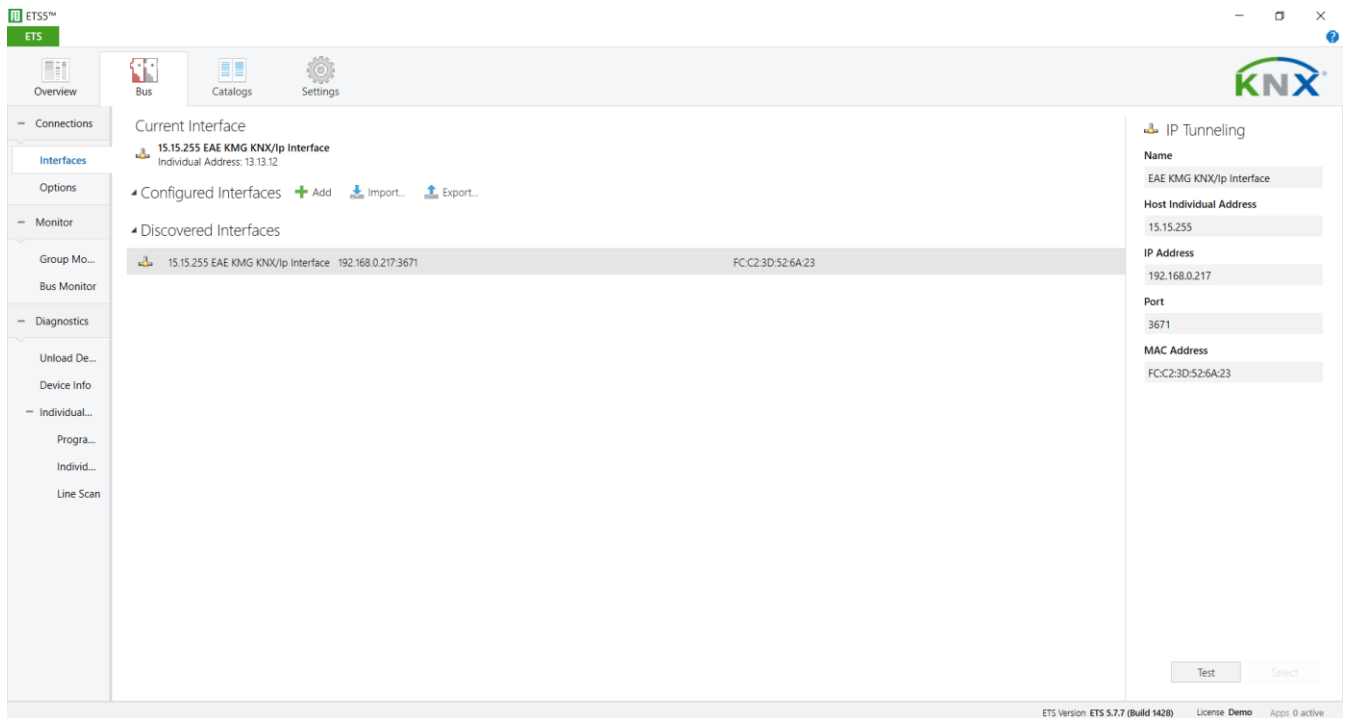
3.9. Import/Export

Project Tab is used to import/exports projects.

3.9.1. Import Project

It is used to import projects previously exported from the KMG Configurator. The Project Import screen will appear upon clicking the "Import Project" button. Then, the relevant project file must be selected in this window, followed by clicking the "Import" button. Project file extension must end with ".kmgproj". Please note that projects created in version 1.1.x cannot be imported into version 1.2.x, and vice versa.
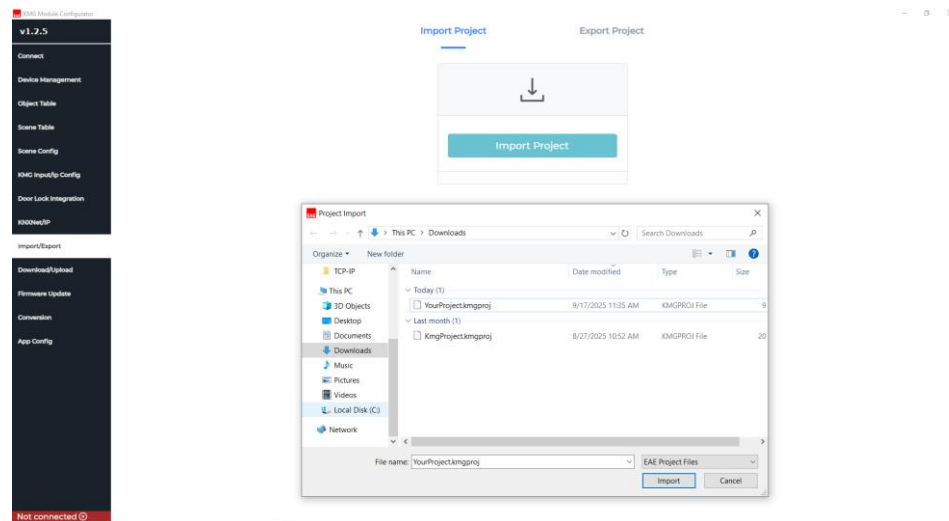

3.9.2. Export Project

It is used to export the project which is created from the KMG configurator. The Project Export screen will appear after clicking the "Export Project" button. Then, a desired name must be given on this window, followed by clicking the Export button on the screen to save the project file.
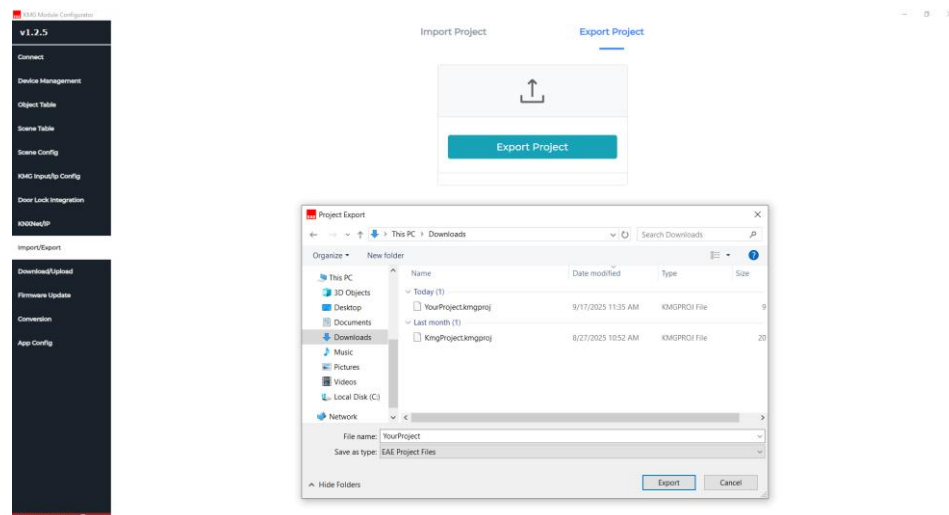
3.10. Download / Upload

3.10.1. Download Configuration

After checking the configuration, the user will need to confirm to continue. If the IP address is going to change, a warning message will appear in the confirmation dialog.
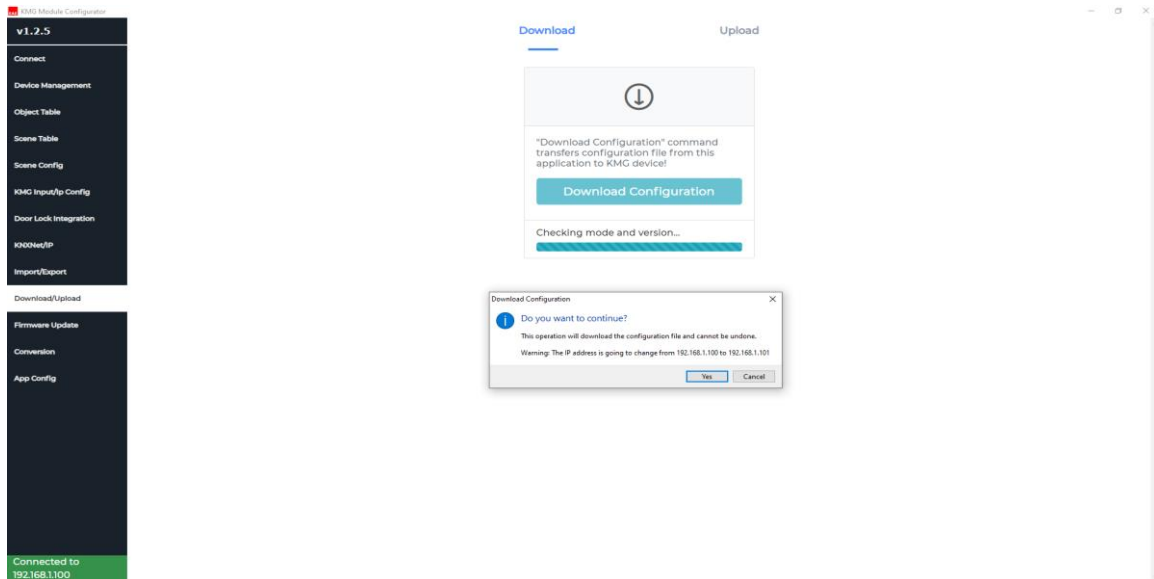

As shown in the image below, the configuration cannot be loaded using KMG firmware version 1.4.5 with Configurator version 1.2.5, as explained in the 3.0 Settings section. To proceed, please use KMG Configurator version 1.1.x or contact technical support for a KMG firmware update.
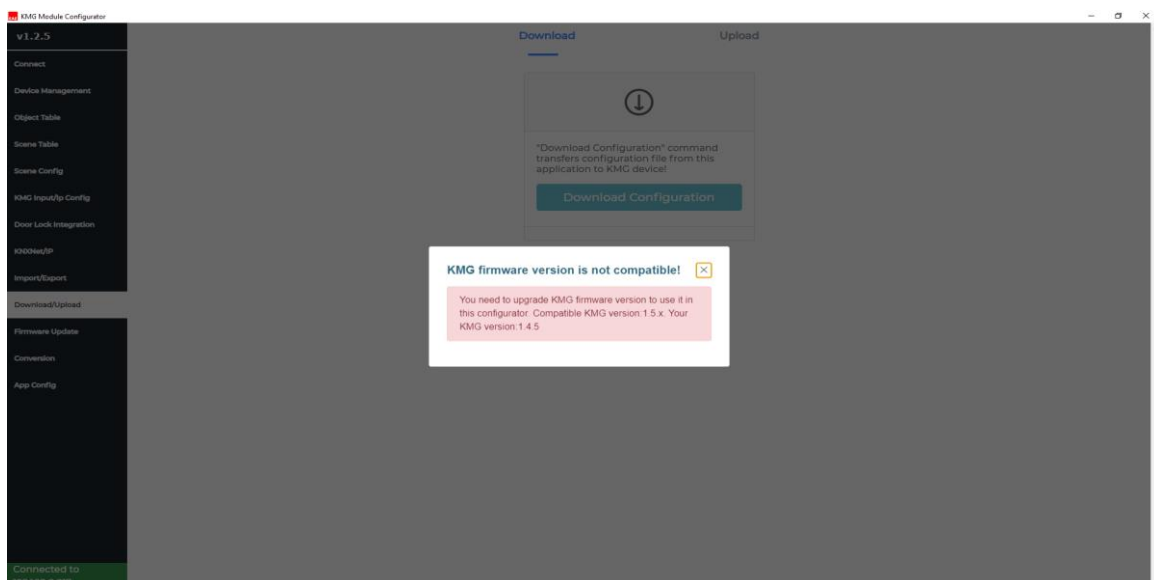
3.10.2. Upload Configuration

The configurator offers 3 different modes to upload.

1. Upload Only: This is the default option. The uploaded configuration will only be saved to the workspace and will not be available in another window. Please consider saving your configuration beforehand.
2. Read Only: The uploaded configuration will only be available in another window. This option does not change the current configuration.
3. Upload and Read: The uploaded configuration will be both saved to workspace and will be available in another window. Please consider saving your configuration beforehand.
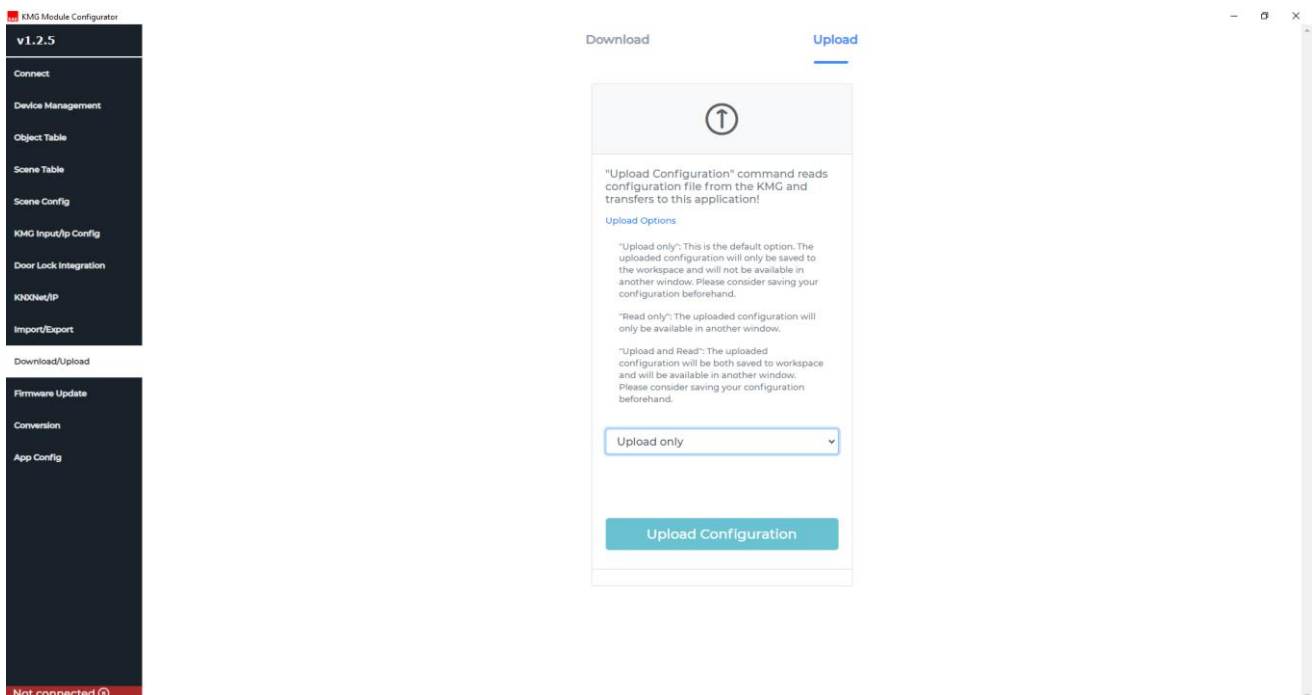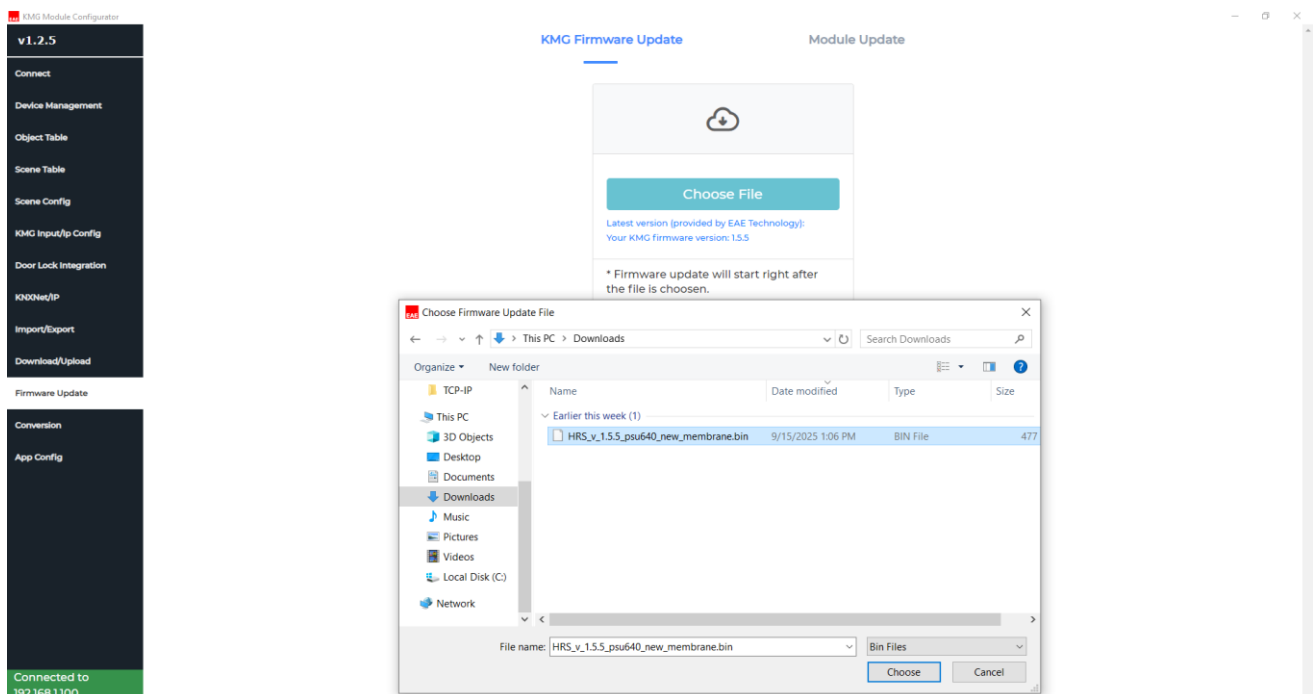
3.11. Firmware Update

KMG103 can be updated with the configurator.
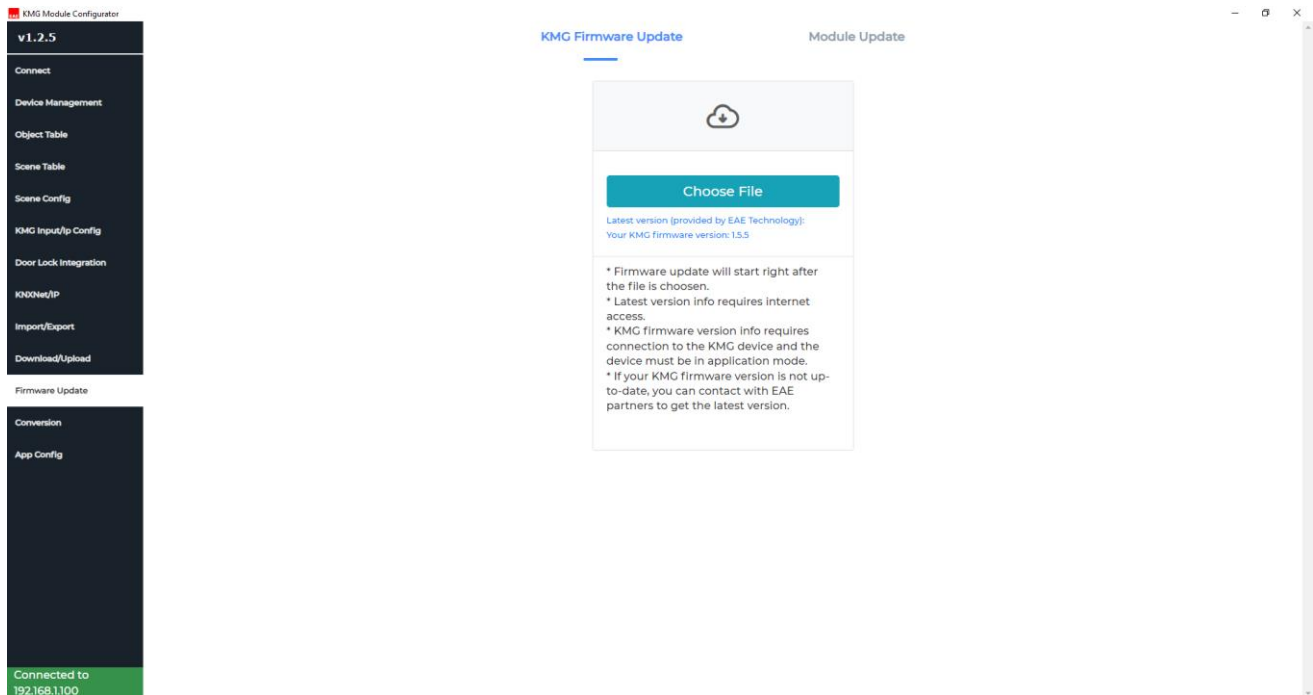
After clicking "Choose File", select the ".bin" extension file provided by EAE Technology to start the firmware update.

After the file is chosen, there are 4 steps (1 is RFU).

(1/5)	KMG mode is application, switching to bootloader…
(2/5)	The file is successfully read; update request will be sent …
(3/5)	Firmware update request has been sent, waiting response...
(4/5)	RFU
(5/5)	The Firmware update is complete!

Typically, the first attempt to update KMG firmware on a PC fails at step 3 due to the need for a specific firewall rule. If this occurs, an error message and a button will appear on the screen.
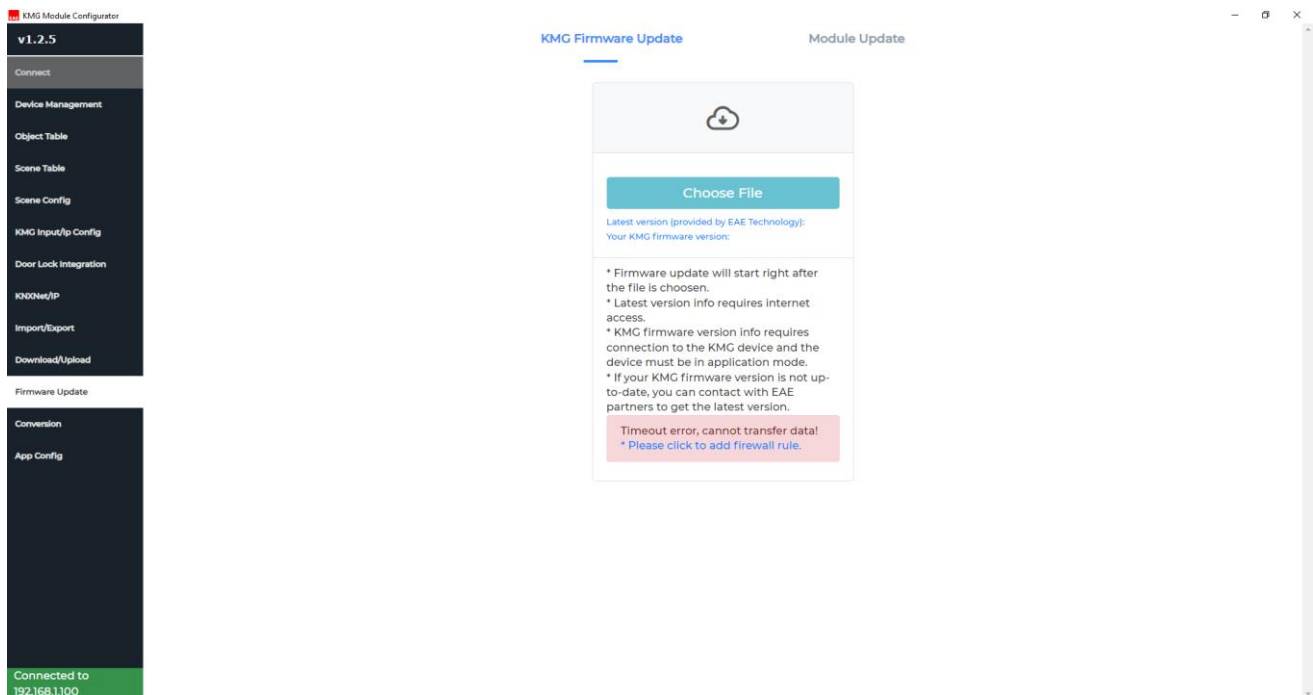

When the link is clicked, elevation will be requested for PowerShell. After giving consent, the firewall rule will be added. This only needs to be done once for the PC/Laptop. Do not add this rule more than once, as it will be added automatically. Press Enter to exit.

After adding the rule, it is advised to wait 2 minutes before updating the device. Once 2 minutes have passed, you can update the devices freely.
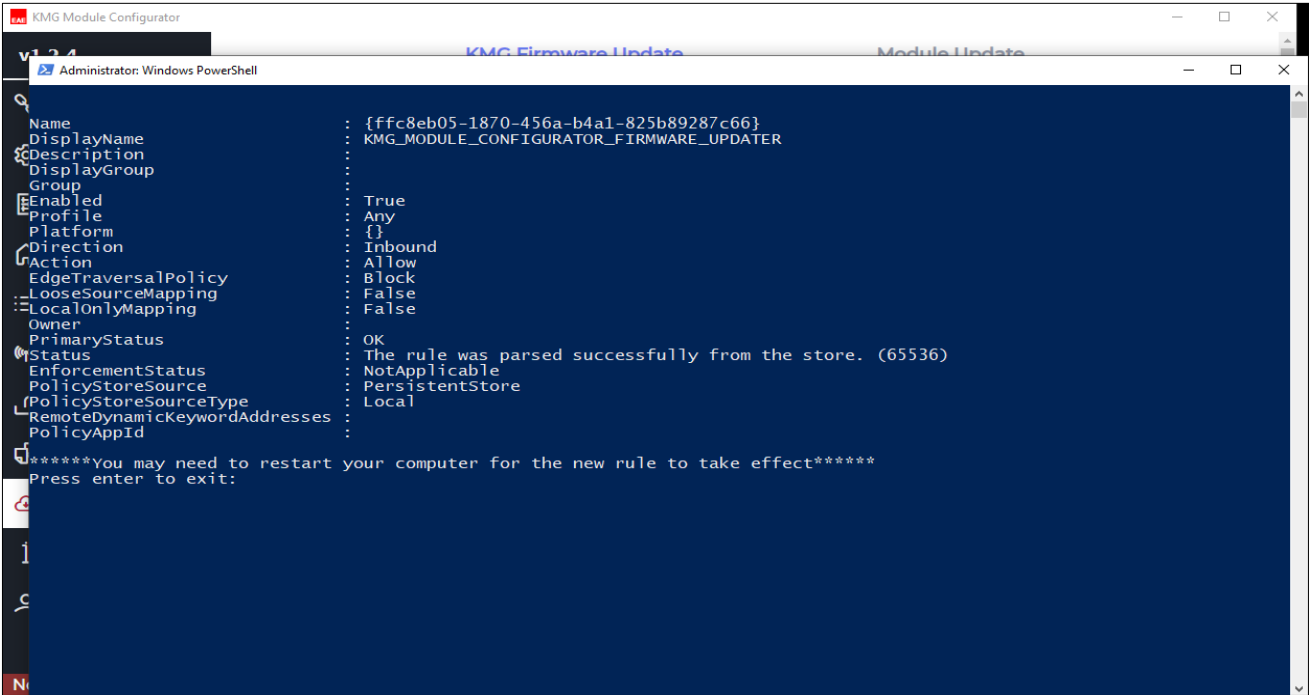
A successful update process consists of 3 steps, as shown in the table.

| 1	KMG switches from Application mode to Bootloader mode (if not already in Bootloader mode).
2	The configurator sends a request to start the firmware update and waits for a response. Once the response is received, the file is sent.
3	After all packets are drained, the firmware update is considered complete. You can query the mode from "Device Management > Version Info".
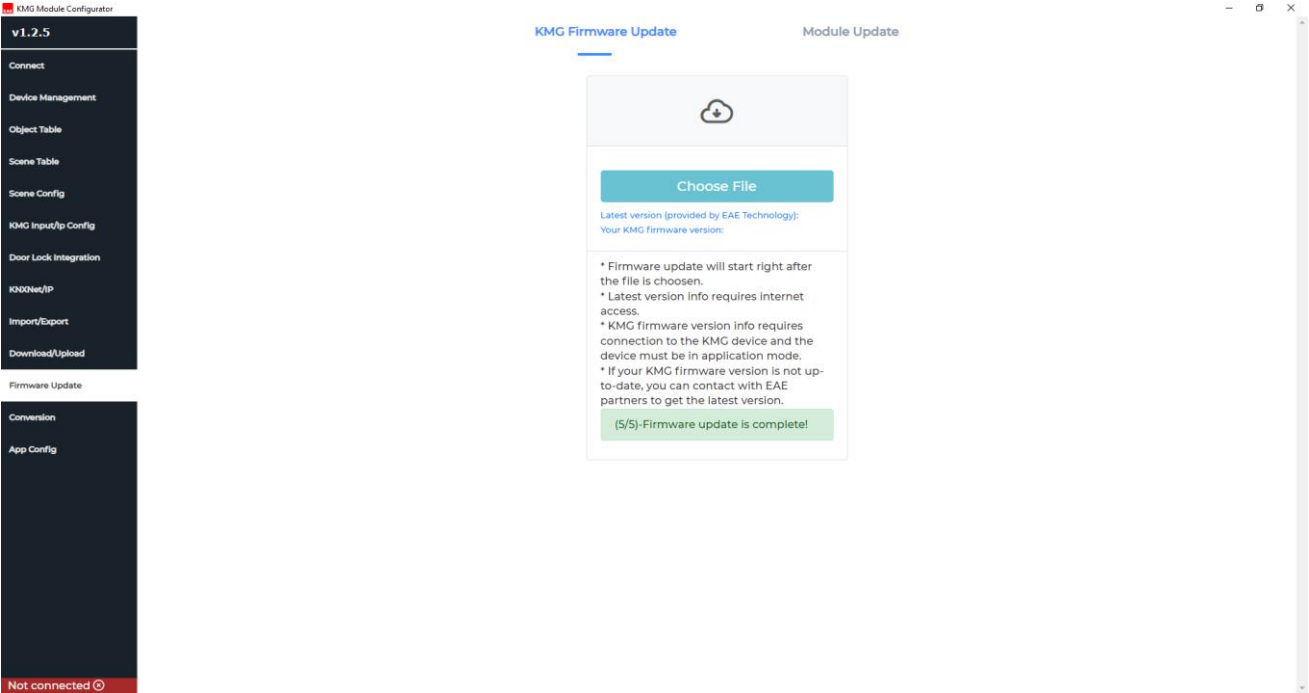
3.12. App Config

Enable Hotel State Machine (HSM): For the HSM module to be active, the user must enable Hotel State machine checkbox. If it's not enabled, it means the device will operate without scenarios. This is convenient for Modbus gateway solution. It will also make the Scene Table tab visible in the UI if enabled.

Enable Door Lock Integration: The device includes a Wireless Door lock Integration feature; please contact your sales representative for more information.
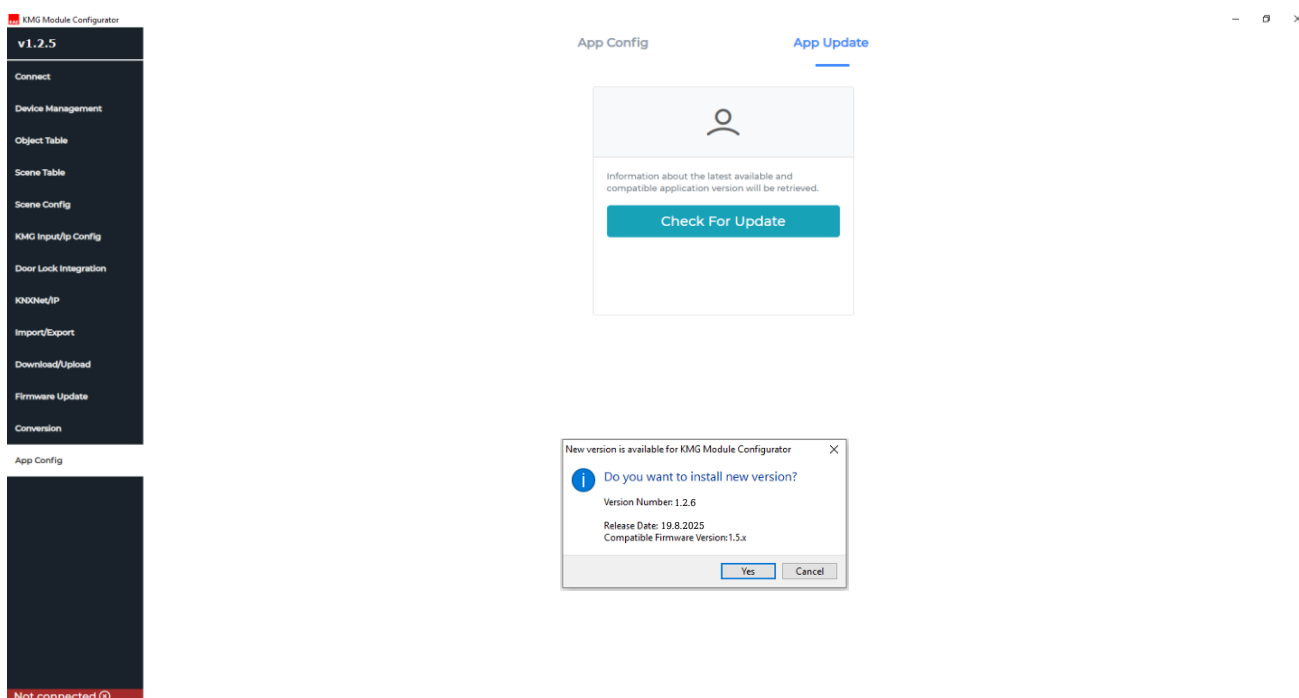
Reset Workspace: If "Reset Workspace" button is clicked, the configurator user can delete all the pre-saved configuration for objects/inputs/scenarios.

Enable KNXnet/IP: To activate KNXnet/IP communication, the user must enable the KNXnet/IP option in the "App Config" section. This allows tunnelling-based access to KNX objects via IP and enables external KNX clients to connect through up to 4 simultaneous KNXnet/IP tunnelling sessions.
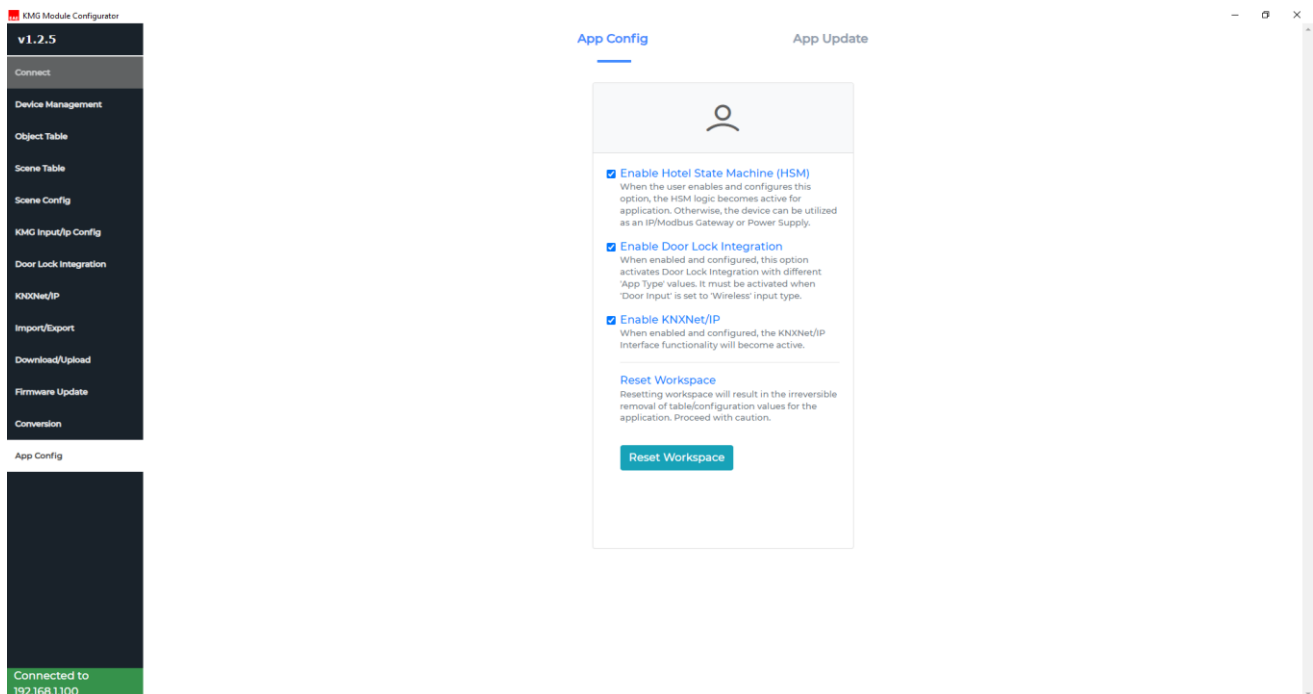
3.12.1. App Update

On the App Update tab, when "Check for Update" is clicked, the remote repository is queried for a new version. If a new version is available, a dialog will appear showing the newer version. If "Yes" is clicked, please do not close the window until the download and installation are complete. The entire process will be done automatically up to the installation stage. The screenshot below shows the dialog for upgrading the configurator from version 1.2.5 to version 1.2.6.

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If a newer version is not available, the configurator will display a warning.