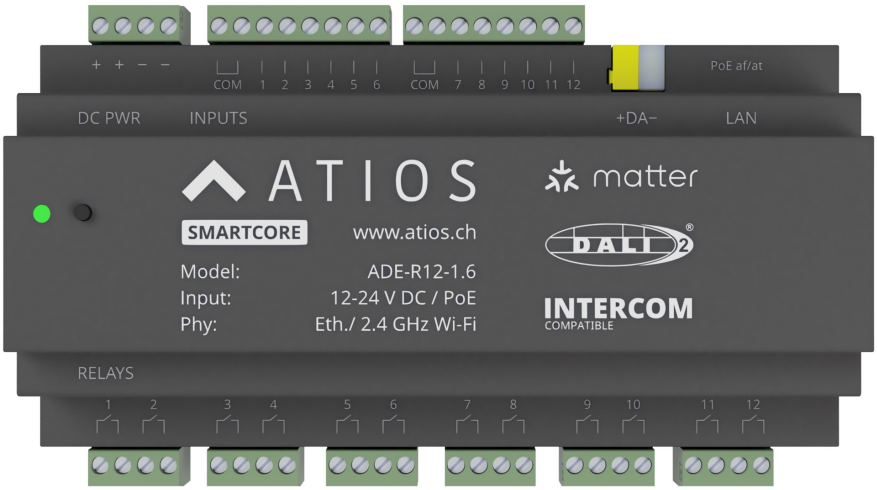
User Manual



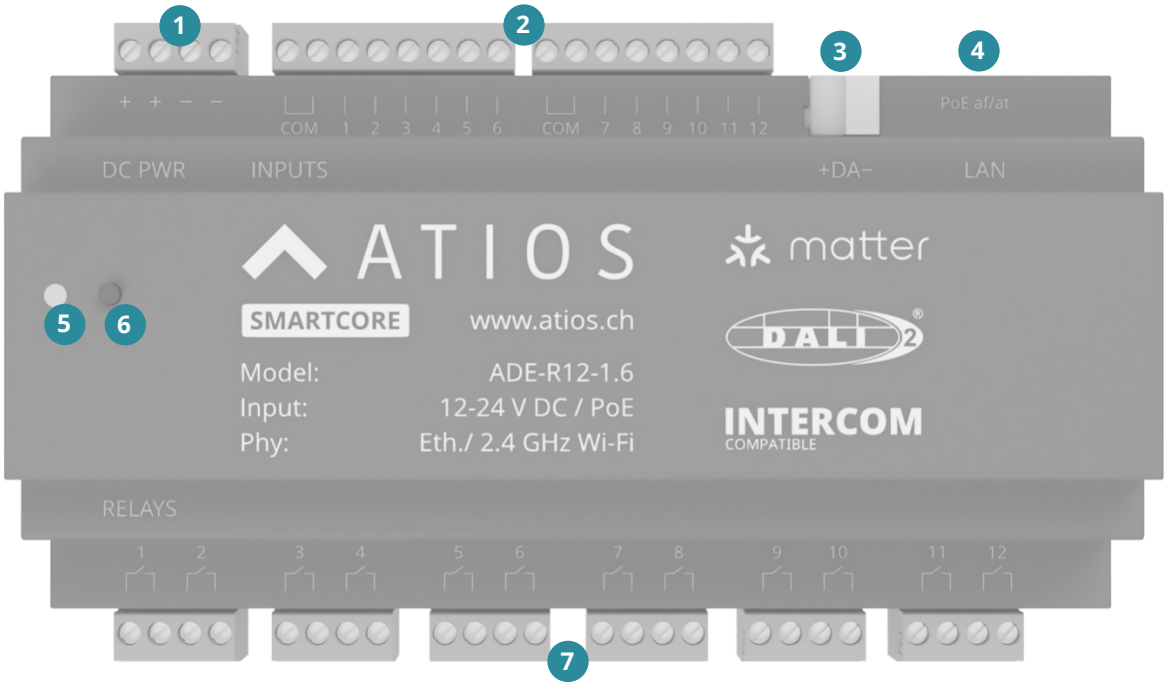
Atios SmartCore

Stand-alone device to control up to 12 Lights, Outlets, Blinds and more.
Integrate your DALI dimmable Lights, Motion Detectors and Keypads.

matter

Works with Apple Home · works with Google Home · WORKS WITH amazon alexa · Works with SmartThings

1 Device Overview, Buttons and LED



1	12-24 V DC Power Supply	5	LED
2	Digital Inputs	6	Button
3	DALI Bus connector	7	Relay Outputs
4	Ethernet Port with PoE		

1.1 LED codes

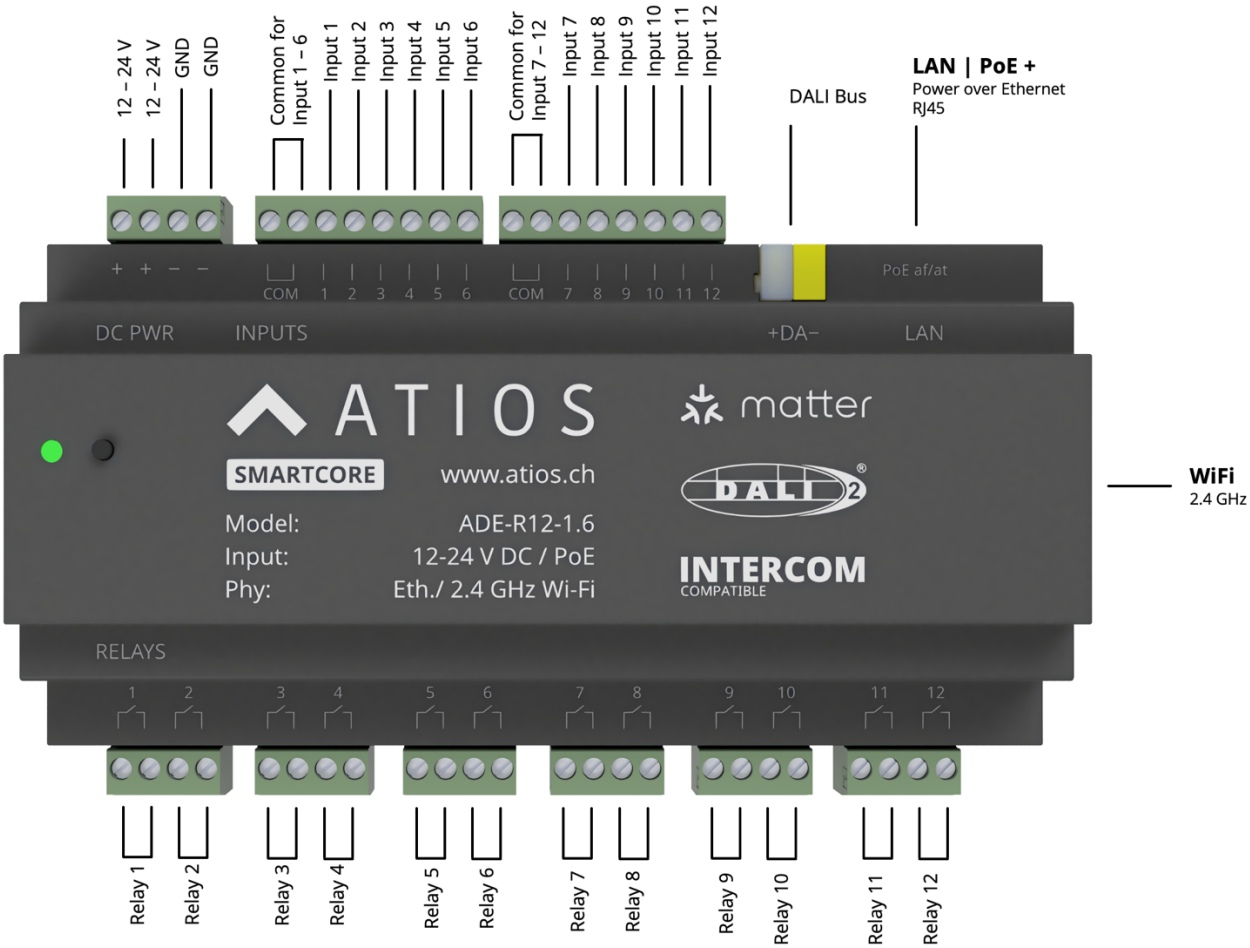
🔵	- - -	rebooting	🟣	- - -	keep pressed until factory reset
	------	booting		------	resetting to factory defaults
🟢	- - -	establish IP connection	⚪	- - -	AP Mode active
	------	got IP address		------	client connected to AP
🟡	- - -	accessory identify	🔴	- - -	WiFi disconnected
	------	safe mode			

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)

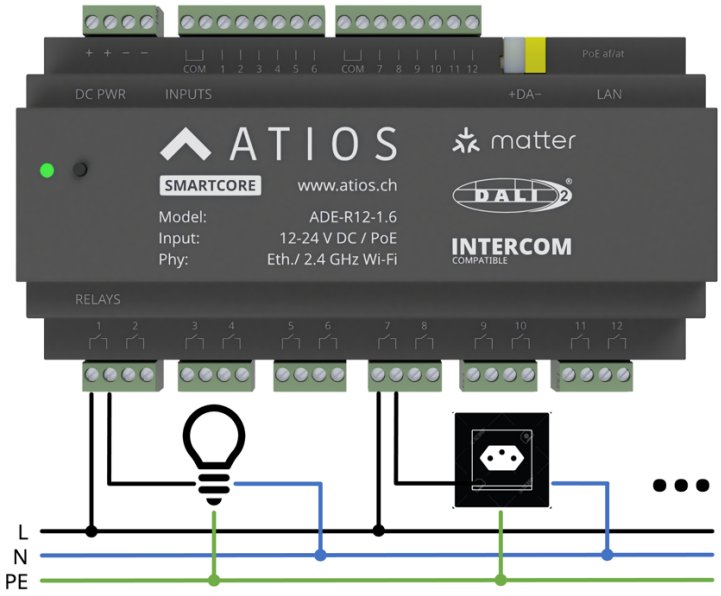
2 Installation & Wiring

1. Mount Atios SmartCore to the DIN Rail in the electrical cabinet.
2. Connect Atios SmartCore to inputs and outputs.
3. Connect Atios SmartCore to Ethernet. If powered by Power over Ethernet, go to Setup.
4. Otherwise connect a separate 12-24V DC power source.



2.1 Wiring Example 230V Loads

Each of the 12 relays (16 A, bistable) has potential free contacts. AC phases and voltages can be mixed.



2.2 Wiring Example 24V Loads

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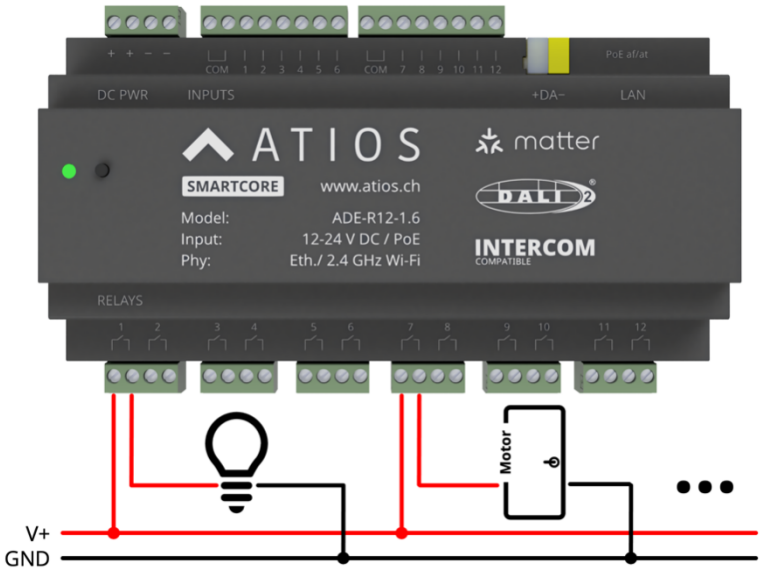
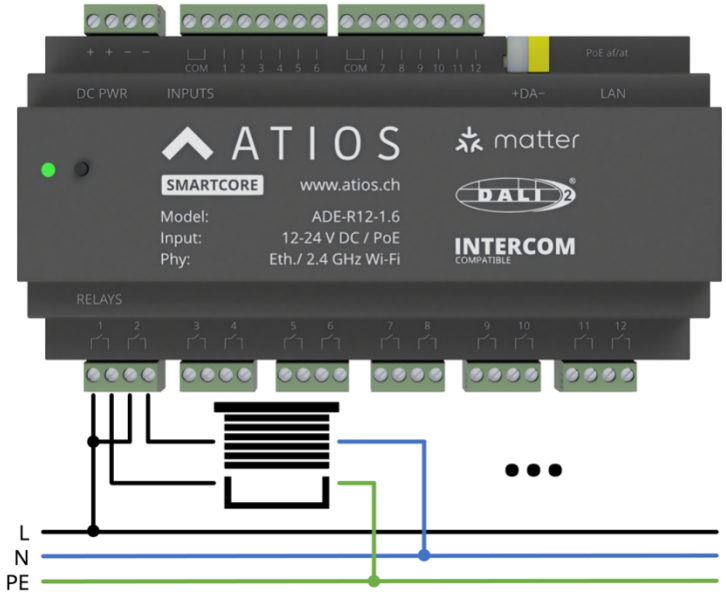


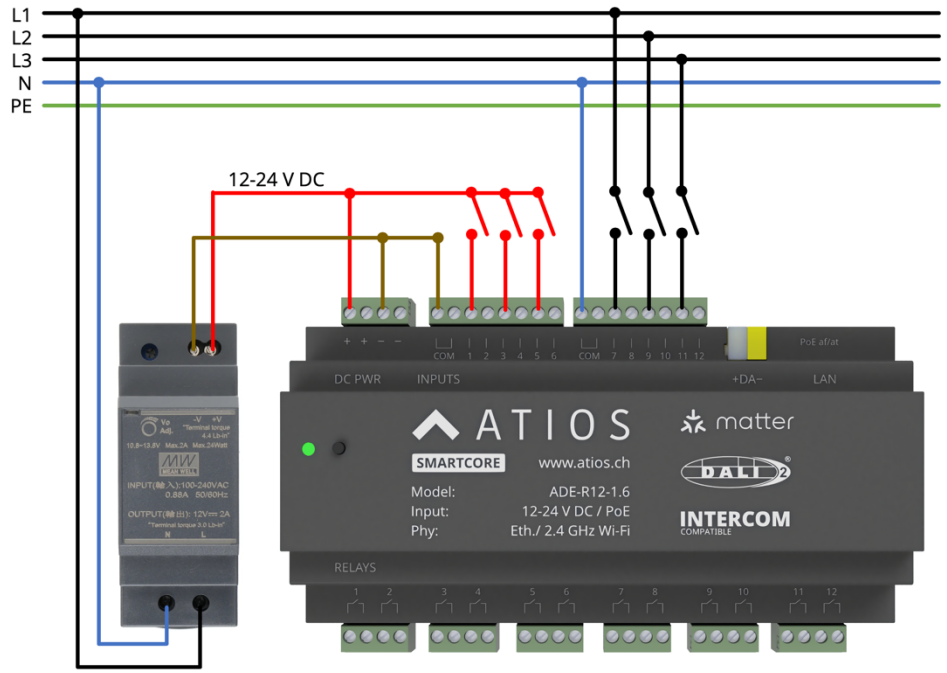
2.3 Wiring Example Window Covering

Each of the 12 relays (16 A, bistable) has potential free contacts, so the supply phase for the motor needs to be connected to each of the relays used for up and down direction. If the motor has no in-built snubber, an external snubber has to be connected to prevent the relay contacts from damage.



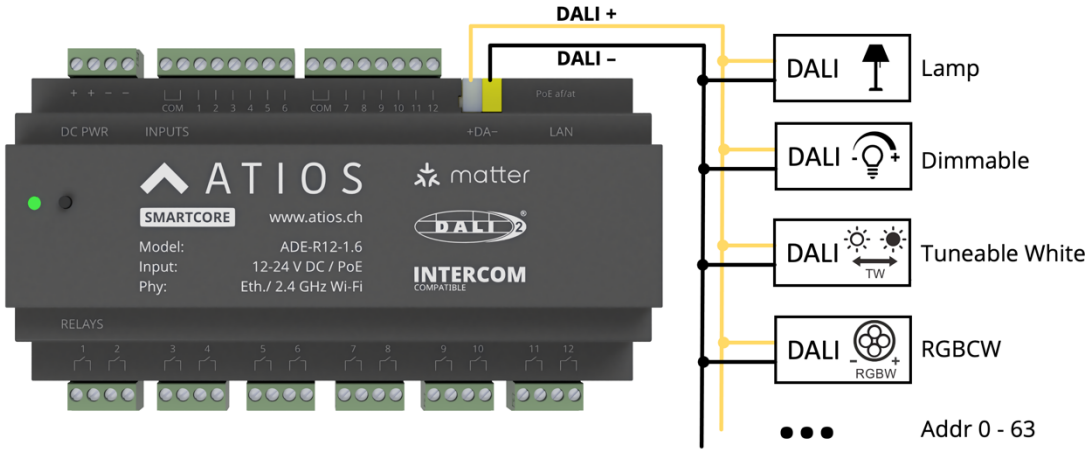
2.4 Wiring Example Inputs and 24V Power Supply

As can be seen in the picture below, Atios SmartCore is powered by an external 24V Power Supply. Do not connect it at the same time to Power over Ethernet. All 12 inputs are opto-isolated and therefore need a reference connected to the COM terminal. Input 1 to 6 have the same reference, vice versa for Input 7 to 12. The wide range inputs detect voltages from 12 V DC up to 230 V AC. For DC inputs the reference voltage has to be GND, for AC inputs neutral. Do not mix input voltages in between 1 to 6 and 7 to 12. In case of AC inputs, phases L1 to L3 can be mixed, since the current flow is maximal 2mA.

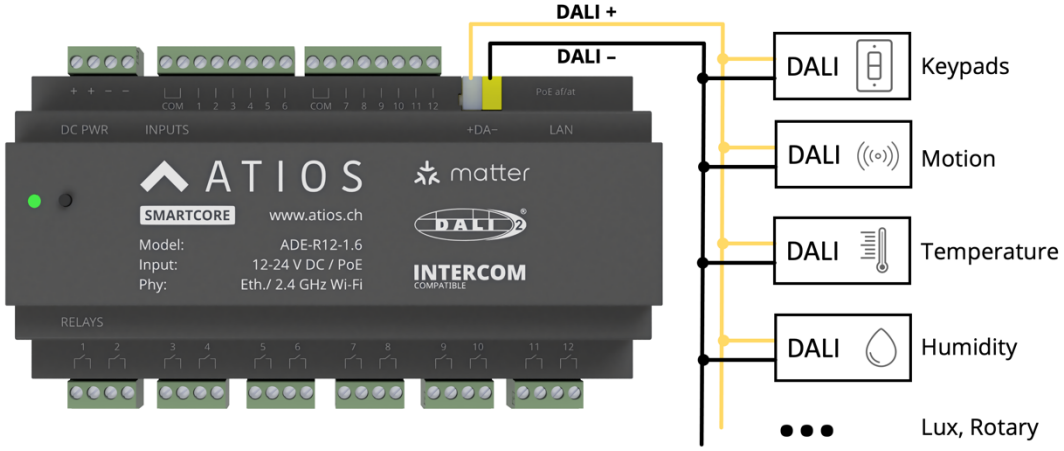


2.5 Wiring Example DALI

As can be seen in the picture below, Atios SmartCore can be connected to an externally powered DALI Bus. In this case connected DALI actuators can be controlled.



Receiving values from connected DALI sensors will be supported soon.



3 Setup

After connecting the SmartCore to Ethernet with PoE or external power, it will obtain an IP address by DHCP. Check your local network, and enter the IP, for example http://192.168.0.100 into your Browser address bar to access the Webinterface. Next go to *Accessory Manager* in the left sidebar and click on the (+)-Button to configure the accessories you wired to the inputs and outputs. Supported accessory types can be seen below, check the following chapters for a detailed description on how to add a specific accessory.


Lightbulb

Switch

Outlet


Window Covering


Lock


Valve


Garage Door

Programmable Switch


Motion Sensor


Occupancy Sensor


Contact Sensor


DALI Light

Supported in Future


Ventilator

CO2 Sensor

CO Sensor


Smoke Sensor


Humidity Sensor


Leakage Sensor

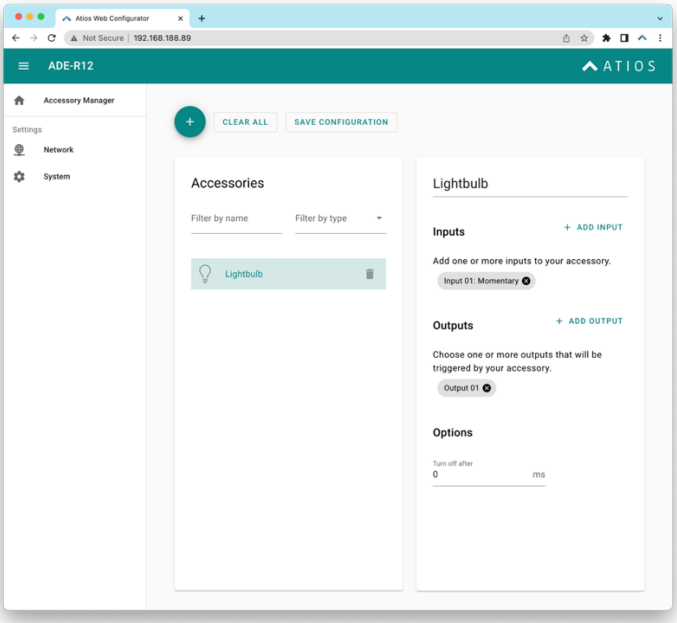

Security System


Air Quality Sensor


Light Sensor

3.1 Lightbulb, Switch, Outlet, Valve

Assuming a Lightbulb is wired to Relay 1 (see 2.1 Wiring Example), as well as a Push Button to Input 1 we can configure the Accessories as follows:



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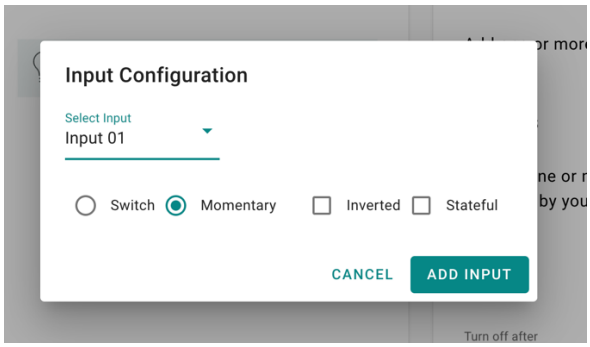
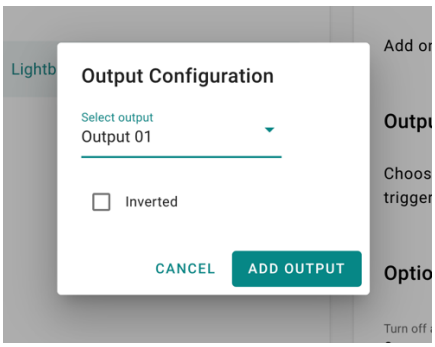




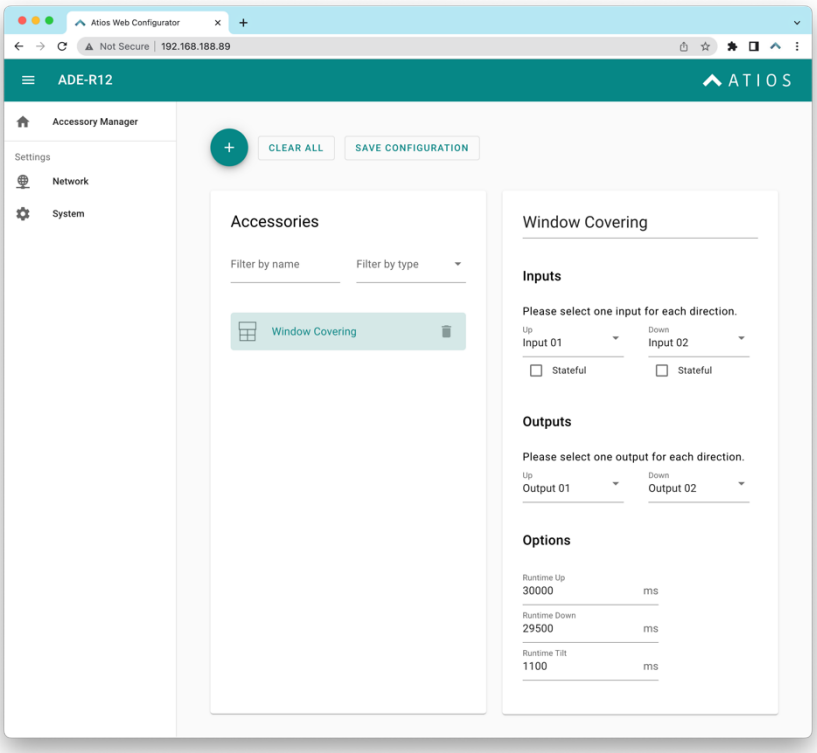
One input can be assigned to multiple outputs, as well as multiple outputs to a single accessory. A Switch, an Outlet and a Valve are configured similarily.

3.1.1 Additional Settings

Name	Value	Description
Input	Switch	An input device that sends a constant HIGH until being pressed again. SmartCore will react on both changes LOW → HIGH, and HIGH → LOW
Input	Momentary	An input device that sends a momentary HIGH until released. SmartCore will react only on change LOW → HIGH
Input	Inverted	In case of Momentary reacts to change HIGH → LOW
Input	Stateful	In case of Switch only reacts to LOW → HIGH, can be reversed to HIGH → LOW when “Inverted” is activated.
Output	Inverted	Inverts the Relay from Normally Open to Normally Closed
Option: Turn off after	Time in milli seconds	Load will be automatically switched off after the set time passes

3.2 Window Covering

Assuming the electric motor of a Window Covering is wired to Relay 1 and Relay 2 (see 2.3 Wiring Example), as well as a Push Button to Input 1 and 2 we can configure the Accessories as follows:



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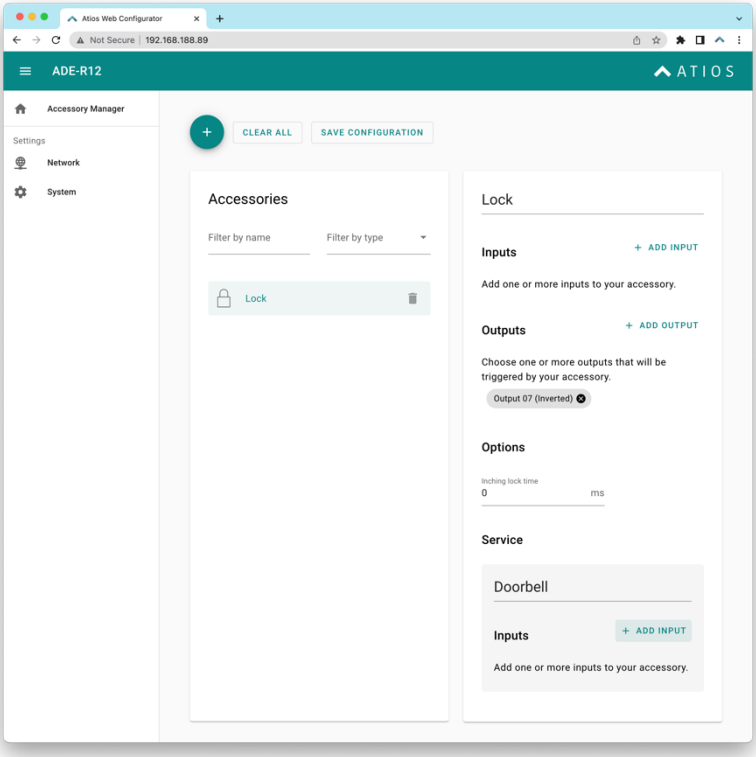
The motor directions UP and DOWN can be inverted by switching the outputs, vice versa for the inputs.

3.2.1 Additional Settings

Name	Value	Description
Runtime Up	Time in milli second	Enter the time the Window Covering needs to completely drive while opening.
Runtime Down	Time in milli second	Enter the time the Window Covering needs to completely drive while closing (can be different to opening).
RunTime Tilt	Time in milli second	Leave empty if the Window Covering has no Slats. Otherwise enter the time they need to go from -90° to +90°

3.3 Lock

Assuming the motorized door lock actuator is wired to Relay 7 (see 2.2 Wiring Example) and needs to be inverted, we can configure the Accessories as follows:



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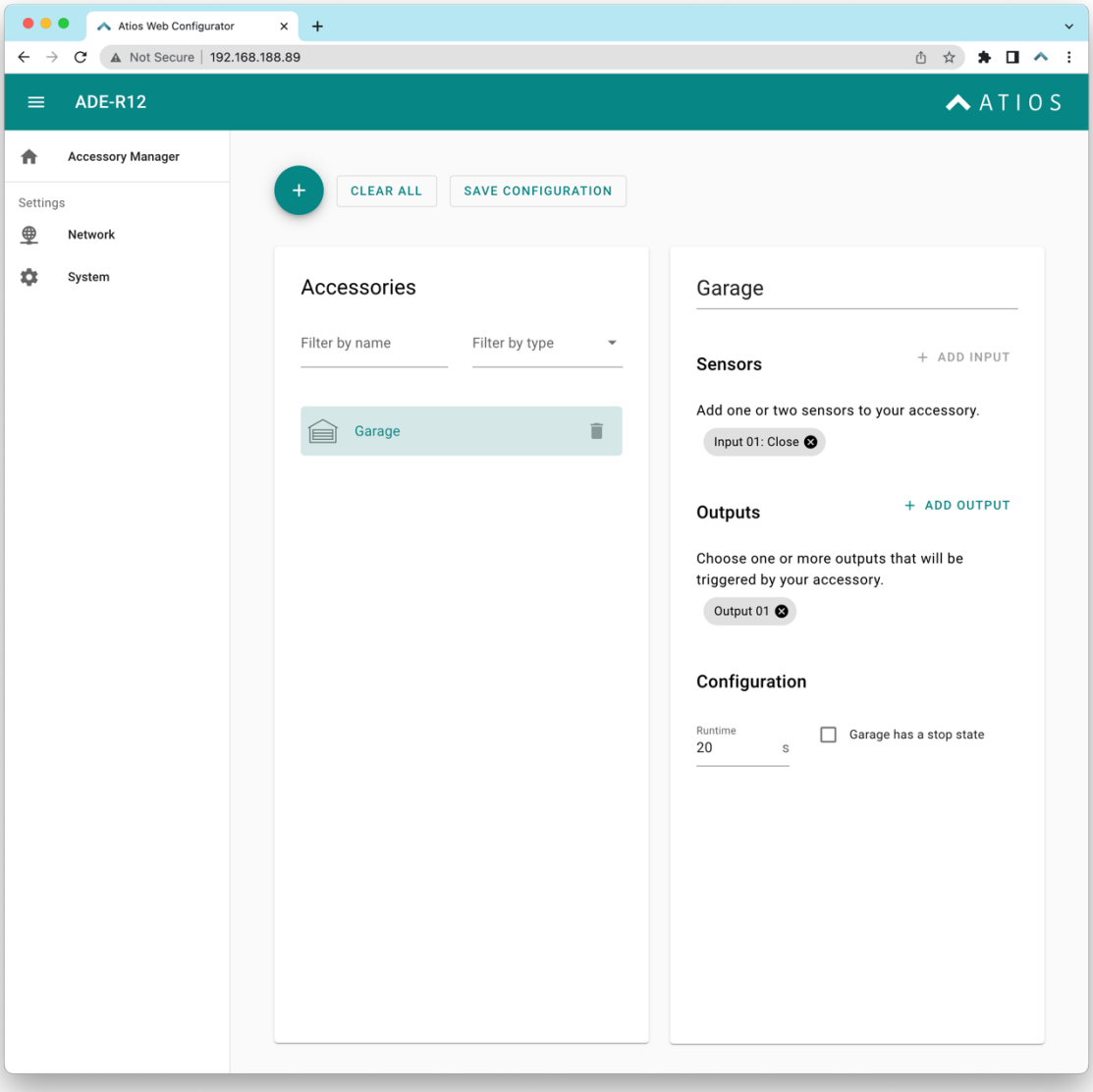
3.3.1 Additional Settings

Name	Value	Description
Options: Inching lock time	Time in milli second	Relay will be automatically switched off after the set time passes
Doorbell	Input	If a doorbell is connected to one of the Inputs, the Home App will issue a Push Notification that the doorbell was rung. And HomePods will play a Doorbell sound.

3.4 Garage Door

Usually a garage door is controlled via an impulse between two wires. Connect these wires to the two terminals of for example Relay 1. Additionally you will need a door sensor that indicates if the Garage Door is fully opened or closed, usually by a magnetic reed contact. Assuming this is wired to Input 1 configure the Garage Door as follows:



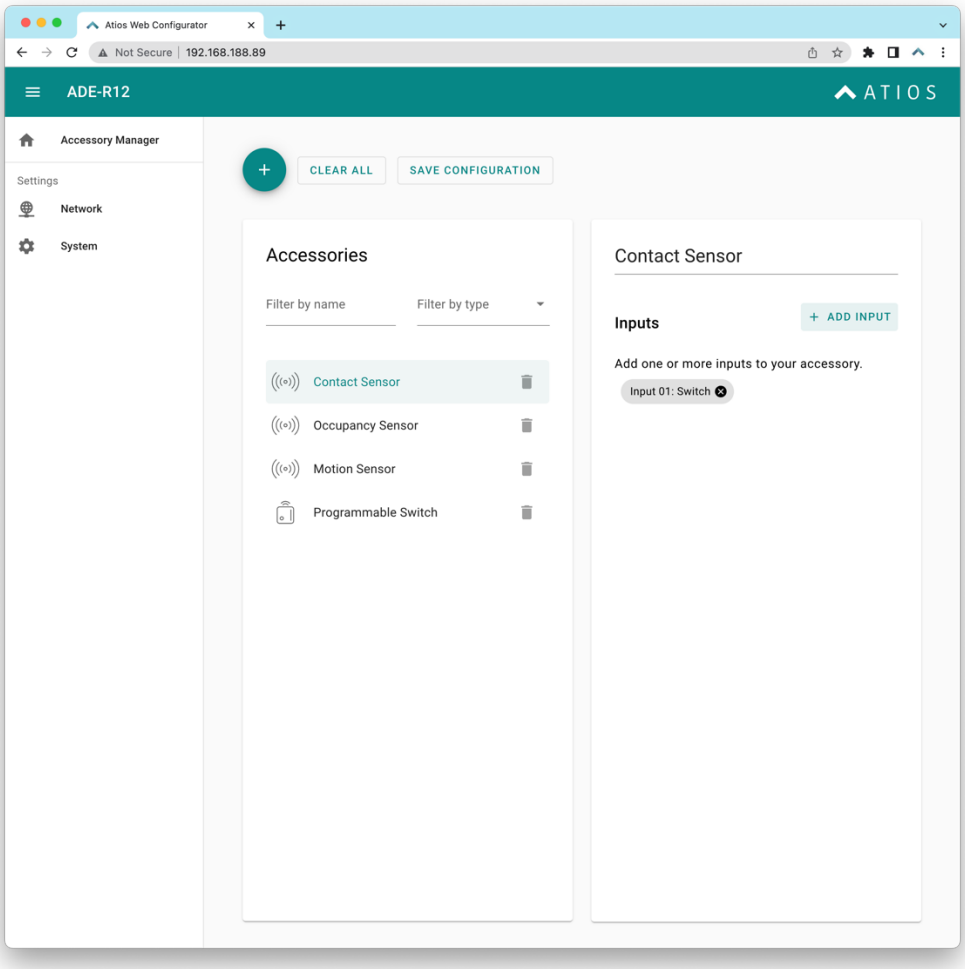
Multiple Door sensors (one for Closed, one for Open) will be supported soon. Until then please use the runtime option, and fill in the time in seconds that the Garage needs to completely open.

3.4.1 Additional Settings

Name	Value	Description
Runtime	Time in seconds	The status of the garage will be automatically computed using the runtime and the sensor.
Stop State	Checkbox	Check this box if your garage changes with a button press between the states OPENING – STOPPED – CLOSING.

3.5 Contact, Occupancy, Motion Sensor and Programmable Switch

Assuming you have wired a door or window contact sensor to Input 1 configure the accessory as follows:



Similar for an Occupancy or Motion Sensor. A Programmable Switch can later in the Apple Home App be assigned to control other accessories or Scenes. Double and long press will be supported soon.

3.5.1 Additional Settings

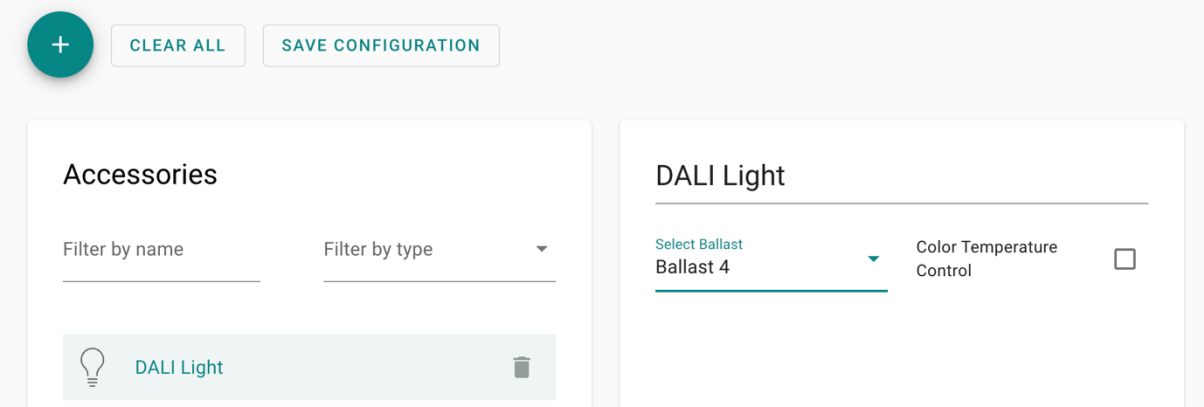
Name	Value	Description
Input	Stateful Switch	A sensor that sends a constant HIGH when being triggered. Will show in Apple Home as active when HIGH and inactive when LOW.
Input	Momentary	Only for Programmable Switch, triggers a Single press when changing from LOW → HIGH
Input	Inverted	To invert the state of a Sensor when set as “Switch”.
Input	Stateful	In case of Switch only reacts to LOW → HIGH, can be reversed to HIGH → LOW when “Inverted” is activated.

3.6 DALI Light

This 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 software. The DALI Bus must be powered externally, Atios SmartCore 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

Add a *DALI Light* in *Accessory Manager* as follows:



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.