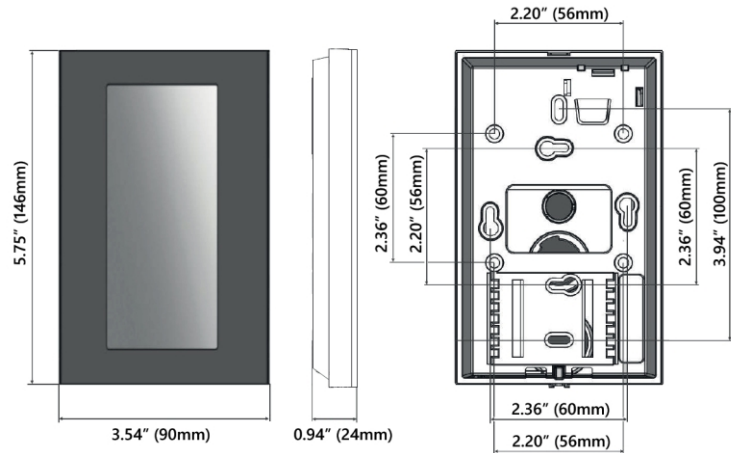


Wall Touch Panel – CASAMBI-EVO-RS485 for CASAMBI Network



DOWNLOAD APP



APPLICATION

Room control unit with RS485 Modbus and Casambi radio interface for intuitive lighting control of Casambi ecosystem participants with up to four integrated sensors for recording room temperature, humidity, CO2 and VOC. A 4.8" touch screen is used to start scenes, select colors, switch lights or over Modbus control shading and climate functions. A monitoring function visualizes the measured values of the integrated sensors in color. The simple configuration via the Casambi app allows device-specific settings or the configuration of scenes and lighting functions with Casambi radio.

TYPES AVAILABLE

Touch screen room operating unit temperature + opt. humidity, CO2, VOC – active BUS

- Thanos EVO Temp RS485 Modbus Casambi*
- Thanos EVO Temp_rH RS485 Modbus Casambi*
- Thanos EVO CO2 Temp_rH RS485 Modbus Casambi*
- Thanos EVO VOC Temp_rH RS485 Modbus Casambi*
- Thanos EVO CO2+VOC Temp_rH RS485 Modbus Casambi*

MOUNTING ADVISE ROOM SENSORS

The Accuracy of the room sensors are influenced by the technical specifications as well as the positioning and the installation type

During Assembly:

- Seal mounting box (if present).
- Installation type, air draught, heat source, radiation heat or direct sunlight can affect the measurement.
- Building material specific properties of the installation place (brick-, concrete-, partition wall, cavity wall, ...) can affect the measurement. (e.g.: Concrete accepts room temperature variation slower than cavity walls)

Assembly not recommended in...

- Air draught (e.g.: close to windows / doors / fans ...)
- Near heating sources,
- Direct sunlight
- Niches / between furniture / ...



TECHNICAL DATA

Measuring values	temperature, optional humidity CO ₂ VOC
Network technology	RS485 Modbus, RTU, half-duplex, Baud rate 4800 9600 14400 19200 38400 56000 57600 or 115200 Parity: none (2 stopbits), even or odd (1 stopbit), Fail-safe Biasing required Casambi (Evolution) 2,4 GHz
Power supply	24 V = ($\pm 10\%$) or 24 V ~ ($\pm 10\%$) SELV <i>With alternating voltage, the correct polarity must be ensured.¹</i>
Power consumption	typ. 2,5 W (24 V =) 5 VA (24 V ~) ²
Measuring range temp	-50..+50 °C 0..+50 °C -15..+35 -20..+80 °C, Standardeinstellung: 0..+50 °C, optional parametrierbar über Thermokon NOVOSapp oder BUS
Accuracy temperature	$\pm 0,5K$ (typ. at 21 °C)
Inputs	1x input for floating contact
Control functions Modbus	occupancy signalling, blinds UP/DOWN/SET, setup scenarios, fan stages, setpoint, ECO function, measured value display & history
Casambi functions	light ON/OFF/DIM, colour temperature, colour control RGBW, setup scenarios
Display	TFT 4,8", 1120x480 px, capacitive touch technology
Enclosure	PC V0 and glass, Surface glass, white or black design variant glas + aluminium
Protection	IP30 according to DIN EN 60529
Cable entry	rear entry, breaking points bottom, drill mark top
Connection electrical	tool-free mountable spring terminal, max. 1,5 mm ²
Ambient condition	0..+50 °C, max. 85% non-condensing
Mounting	surface mounted on flush-mounting box ($\varnothing=60$ mm) or to be mounted flat onto the surface using screws, base part can be mounted and wired separately

¹ When several BUS devices are supplied by one 24 V AC voltage supply, it is to be ensured that all "positive" operating voltage input terminals (+) of the field devices are connected and all "negative" operating voltage input terminals (-) (=reference potential) are connected (in-phase connection of field devices). In the case of reversed polarity at one field device, a supply voltage short-circuit would be caused by that device.

The short-circuit current thus flowing through this field device will damage it. Therefore, pay attention to the correct wiring.

² type inrush current: 2A (< 5 ms)

Humidity (Optional)

Measuring range humidity (optional configurable)	relative humidity (default) 0..100% rH configurable via Thermokon NOVOSapp or BUS	Enthalpy 0..85 KJ/kg	absolute humidity 0..50 0..80 g/m ³	dew point 0..+50 -20..+80 °C
Accuracy humidity	$\pm 2\%$ between 10..90% rH (typ. at 21 °C)			

CO₂ (Optional)

Measuring range CO ₂	0..2000 0..5000 ppm (configurable via Thermokon NOVOSapp or BUS)
Accuracy CO ₂	± 50 ppm +3 % of reading, (typ. at 21 °C, 50% rH, 1015 hPa)
Calibration	self-calibration dual channel
Sensor	NDIR (non-dispersive, infrared)

VOC (Optional)

Measuring range VOC	0..100 %
Sensor	VOC sensor (heated metal oxide semiconductor)



Accessories (Optional)

Rawplugs and screws (2 pcs. each)
PSU-UP24 – flush mount power supply 24 V (AC Input: 100...240 V ~ | DC Output 24 V = 0,5 A)

Item No. 102209
Item No. 645737

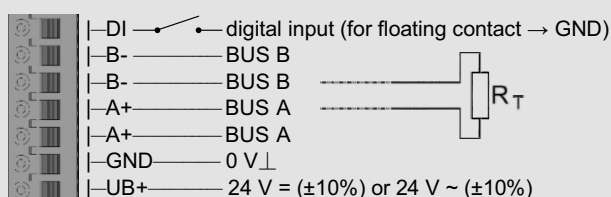
Thermokon USB-Interface
USB RS485 Modbus RTU Logger
USB Interface RS485 (incl. driver CD)
RS485 Biasing Adapter

Item No. 597838
Item No. 809917
Item No. 668293
Item No. 811378

CONNECTION PLAN

Room operating unit

thanos EVO RS485 Modbus Casambi



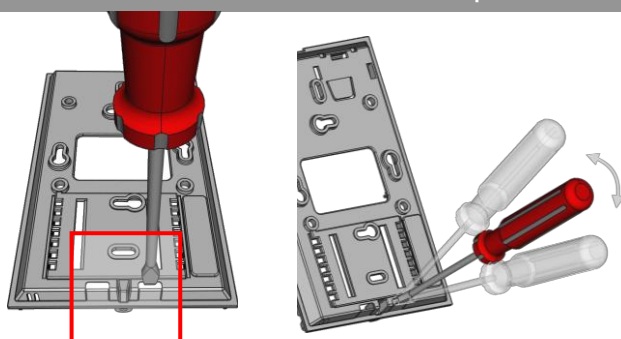
With alternating voltage, the correct polarity must be ensured!
Please note the technical data.

Don't forget the BUS termination (120 Ω) at the last device of the line!
(Not included in delivery)

MOUNTING ADVICES

Cable entry

There are predetermined breaking points for 2 optional cable entries on the underside of the base plate.



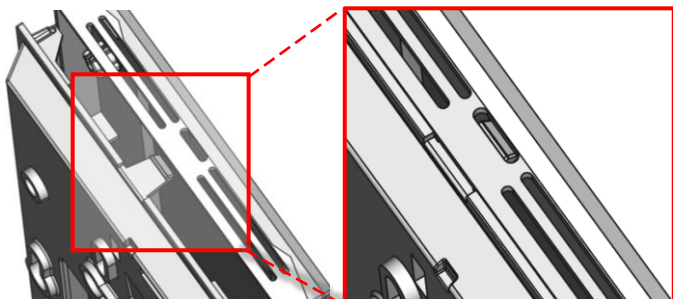
Please make sure that the device is de-energized if you want to install it!

The installation can be performed on the flat wall surface or on a flush-mounted box. A representative place should be selected. Sunshine and draft, e.g. in the installation tube should be avoided, so that the measurement result is not falsified. Seal the end of the installation tube.

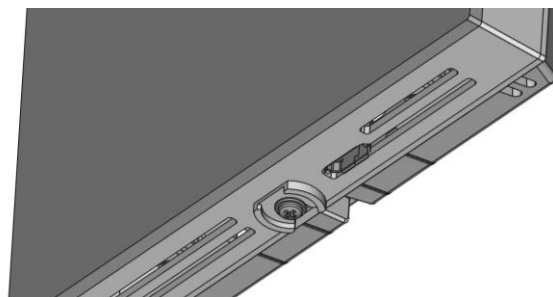
- For wiring, the upper part of the device must be removed from the base plate. Base plate and upper part are detachably connected to each other by means of locking lugs.
- The mounting of the base plate on the flat wall surface is done with rawplugs and screws.
- Finally, the device is attached to the base plate and fixed with the screw.

Housing open / close

Snap the upper part of the housing into the locking lug on the upper side



Fix the upper part of the housing on the underside with the screw



FUNCTION DESCRIPTION – HOMESCREEN THANOS EVO

Homescreen

The display on the main screen of the thanos EVO room control unit can be freely parameterised. All icons and notifications can be switched on and off. Set point can also be overwritten.

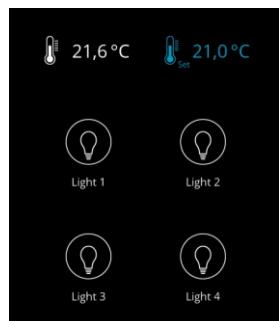
Status messages

At any time, any text message (max. 24 characters) can be displayed on the main screen for status reporting or notification.

Favorites button

Light, blind circles or complete submenu can be placed on the home screen as a favourites button that is quickly accessible. Up to 4 favourite buttons are possible.

Example below: 4 different Light circles



Headline

In the header of the main screen various icons can be shown or hidden as desired.

Date / time

The time and date are in the center of the main screen.

Setpoint / room temperature

The currently set target value of the room control unit and the room temperature are shown on the display.

Navigation bar

The navigation bar is a central element on the Home screen. It contains all menus such as climate, light, blinds, scene, monitoring, display ON/OFF and settings. If certain menus are not needed, they can be switched off as desired. With a swipe gesture you can scroll between the menu pages in the navigation bar.



To reduce the risk of burnt-in effects of the screen contents, it is recommended to activate the screen saver. By default, the screen saver switches on 120 seconds after the last interaction.



Modbus addresses:

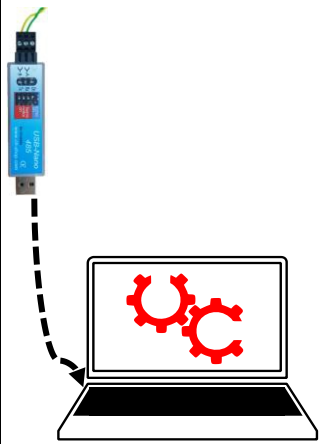
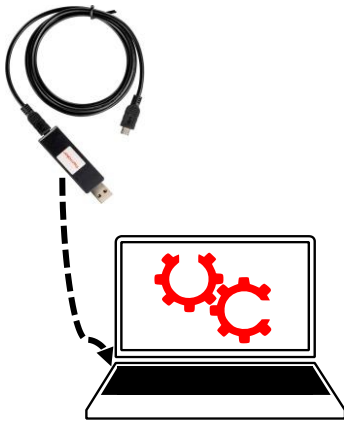
NOVOS-RS485 Modbus Interface

A detailed description of the Modbus addresses can be found under the following link: → [Download](#)



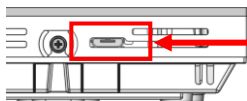
CONFIGURATION

The configuration is performed in powered state. The following options are available for configuring the device:

Device connection	RS485	Micro-USB	Casambi Communication
Configuration-adapter	USB-RS485 Converter 	Thermokon USB-Interface 	internal 
Configurations-software	PC/Notebook with uConfig software <i>Parameterization with Thermokon software uConfig, via USB/RS485 Converter* (Art.-No.: 668293)</i>	PC/Notebook with uConfig software <i>Partly parameterization with Thermokon software uConfig, via Micro RS-232/USB Converter* (Art.-No.: 597838)</i>	Smartphone/Tablet with CASAMBI App <i>Parameterization with mobile device via bluetooth and CASAMBI App.</i>

*Commercially available Bluetooth dongles or USB to Micro-USB adapter cables are not compatible. You need a mobile device that supports at least Bluetooth version 4.1. The configuration app with the corresponding instructions can be downloaded from the Google Play Store or the Apple App Store.

Additionally a configuration via RS485 interface via BMS during powered state is possible.



Position of the micro USB port, see bottom of the device, for configuration with Bluetooth dongle or Micro-USB programming interface



CASAMBI COMMUNICATION



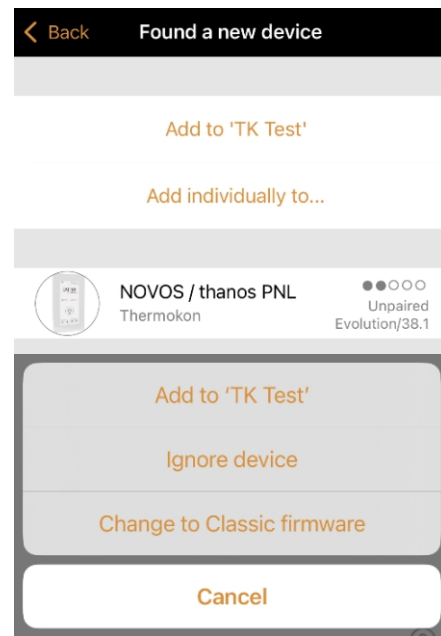
A thanos EVO Casambi serves as an interface between a Building Management System and a coupled Casambi network.

All information received from the thanos EVO via Casambi is passed on to the BMS, so that the current status can be viewed and used in the building control system at any time.

Commands for Casambi functions sent to thanos EVO via bus communication are sent to the Casambi network via Casambi radio.

CASAMBI COMMISSIONING

1. Connect the device to the power supply. Observe the connection diagram!
2. Open Casambi App (iOS App Store / Android Play Store)
If an unpaired device is found, it is suggested to add the device to a network.
3. Add thanos EVO to an existing Casambi network, is required switch to other Casambi network first.
After pressing the "back" button the network can be changed ("my networks").
4. The device appears in the gateway section.
5. Configure the thanos Evo Casambi parameters.



CASAMBI PARAMETER

PARAMETERS	
Settings	d12r >
Favorites	0000 >
G1 selection	Select group >
G1 name	G1 Name >
G1 type	30112740 >

Settings (parameter L T B C)

L = language

D – german
E – english
X – no change

T = Time synch

0 – no time synch
1 – time synch from Casambi to device

B = Behavior

1 – external control (configurable via BUS)
2 – standalone/panel (configurable only via CASAMBI)

C = display color scheme

x background color / text color
0 no change

B black / white
W white / black

G green / white
L blue / white

R red / white

Example settings: d12l = german | time synch | standalone/panel | background color blue / text color white

PARAMETERS	
Settings	d12r >
Favorites	0000 >
G1 selection	Select group >
G1 name	G1 Name >
G1 type	30112740 >

Favorites* (ABCDE)

A favorite button 1
B favorite button 2
C favorite button 3
D favorite button 4
E favorite button 5

Default value: 0 - none

i.E.: 0b300

– none / scene 2 / group 3

PARAMETERS	
Settings	d12r >
Favorites	0000 >
G1 selection	Select group >
G1 name	G1 Name >
G1 type	30112740 >

Gx selection / name

(Selection / Input field)

Selection – Casambi group

Name – group name

Favorites

1	Group 1
2	Group 2
3	Group 3
4	Group 4
5	Group 5
6	Group 6
7	Group 7
8	Group 8

a	Scene 1
b	Scene 2
c	Scene 3
d	Scene 4
e	Scene 5
f	Scene 6
g	Scene 7
h	Scene 8

i	Presence
j	Eco
k	Climate menu
l	Lighting menu
m	Blind menu
n	Scene menu
o	Monitoring menu
p	fan menu (Novos 7)

q	shading 1
r	shading 2
s	shading 3
t	shading 4
u	shading 5
v	shading 6
w	shading 7
x	shading 8

PARAMETERS	
Settings	d12r >
Favorites	0000 >
G1 selection	Select group >
G1 name	G1 Name >
G1 type	30112740 >

Gx type

(Light group configuration)

ITDSMnMx

I – Icon

T – Type

D – Dim function

S – Step size

Mn / Mx – minimum / maximum
Color temperature

Scene symbol	11111111
S1 selection	Select scene >
S1 name	S1 Name >
S2 selection	Select scene >
S2 name	S2 Name >

Scene symbol

(Scene symbol configuration)*

1. digit = scene symbol 1
2. digit = scene symbol 2...

Sx selection / name

(Selection / Input field)

Selection – scene

Name – scene name

Gx Type parameter listing

I	0 – universal, 1 – spot, 2 – cassette, 3 – floor lamp (default)
T	0 – slider (default), 1 – RGBW colourpicker, 2 – colour temperature picker
D	0 – not dimmable, 1 – dimmable (default)
S	0 – 1, 1 – 1 (default), 2 – 2, 3 – 3, 4 – 4, 5 – 5, 6 – 10, 7 – 15, 8 – 20 (in %)
Mn	Input value (2 digits) multiplied with 100 = minimum kelvin (Color Temperature) (i.E.: Mn = 27 -> CTmin = 27 * 100 = 2700K (default))
Mx	Input value (2 digits) multiplied with 100 = maximum kelvin (Color Temperature) (i.E.: Mx = 40 -> CTmax = 40 * 100 = 4000K (default))

Example Gx Type: 30112740 = floor lamp | slider | dimmable | 1 | min kelvin color temp 2700k | max kelvin color temp 4000k

Scenen symbol parameter listing

0	work (briefcase)
1	presentation (canvas)
2	cinema (screen)
3	party (cocktail glass)
4	bedroom (bed)
5	food (serving bell)
6	do not disturb (lock)
7	cleaning (vaccum cleaner)
8	scene (clapperboard)

Example scene symbol: 02437000 = scene 1: work | scene 2: cinema | scene 3: bedroom | scene 4: party | scene 5: cleaning

