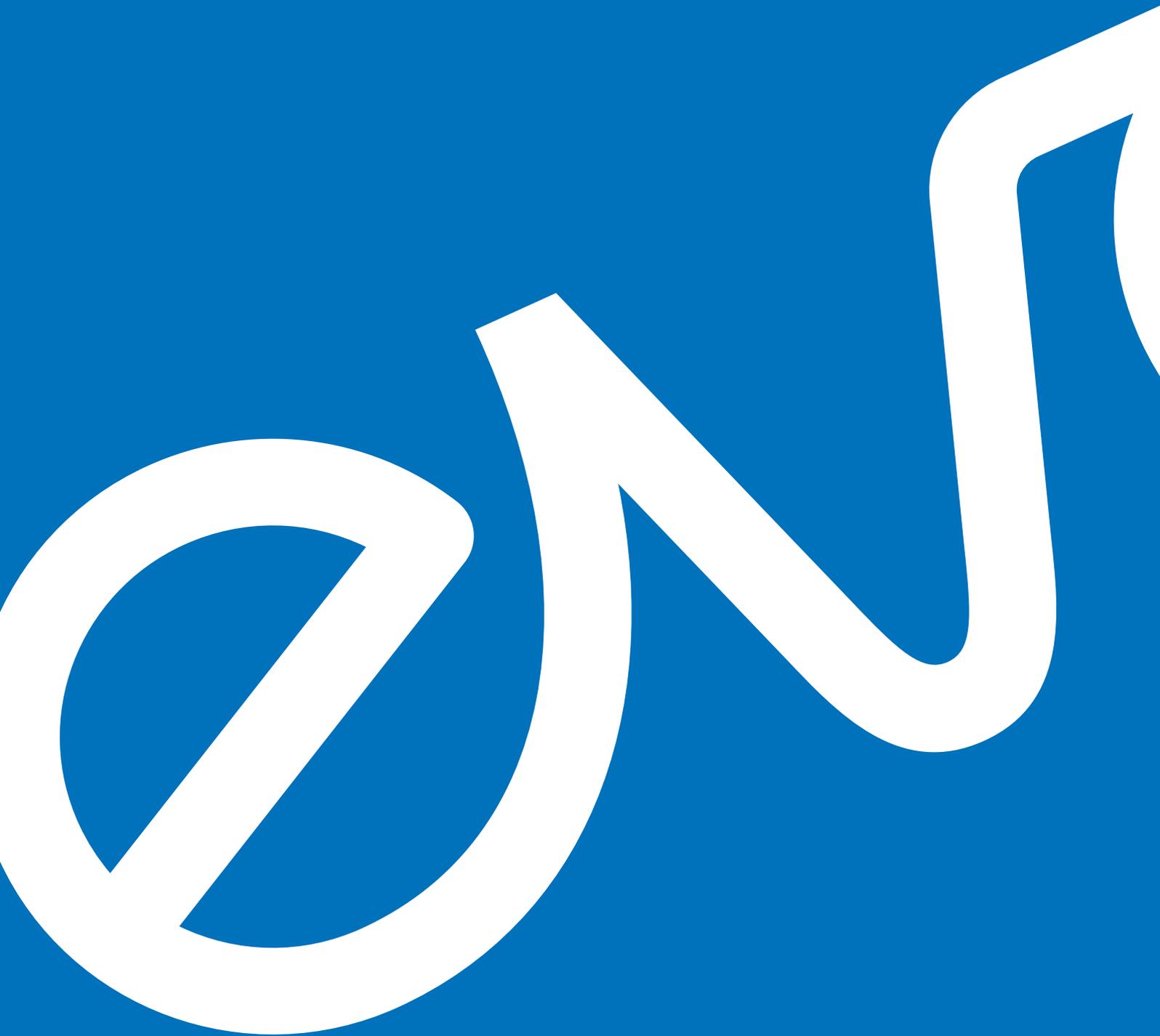


evon Smart
Home



Product overview
2019

Brings light
to everywhere



Transforms to
your requirements



Ensures easy
energy efficiency



Secures
your world

Swings into the evening with you



evon Smart Home



Increases the value of your living dream



Feels like the future

Have you thought of everything for your new smart home?

Good!

But it's not that important.

A new house? A new apartment? Or renovating an existing property? Wonderful. All you now need is the appropriate smart home system for new happiness. Why is evon Smart Home now the future-orientated choice?

It's simple

As soon as everything is connected, you will find all functions of your smart home in the evon Smart Home app. Programming is then complete. Scenes, settings ... can be very simply generated or changed on the smartphone, tablet or PC – without programming knowledge!

Better

Ready for the future! The adaptation of your smart home to new tasks is simple. For example, if you want the light switch in the cellar to simultaneously close the garage door ... start the evon Smart Home app and complete the task with a few clicks.

Safe

As the core focus of evon Smart Home is software and we are continually expanding the system, you can be sure that all relevant standards will be supported by us in future. Regardless of whether they relate to shading elements, audio, video, heating, motion sensors, cameras ...

Updates of all new versions are continually released – you decide whether to install them.

Affordable

evon Smart Home combines all functions of your smart home in the software, not in expensive special hardware. You can therefore use any button and make it smart with evon Smart Home smart. This simplifies installation and decreases costs.

Where is the drawback please?

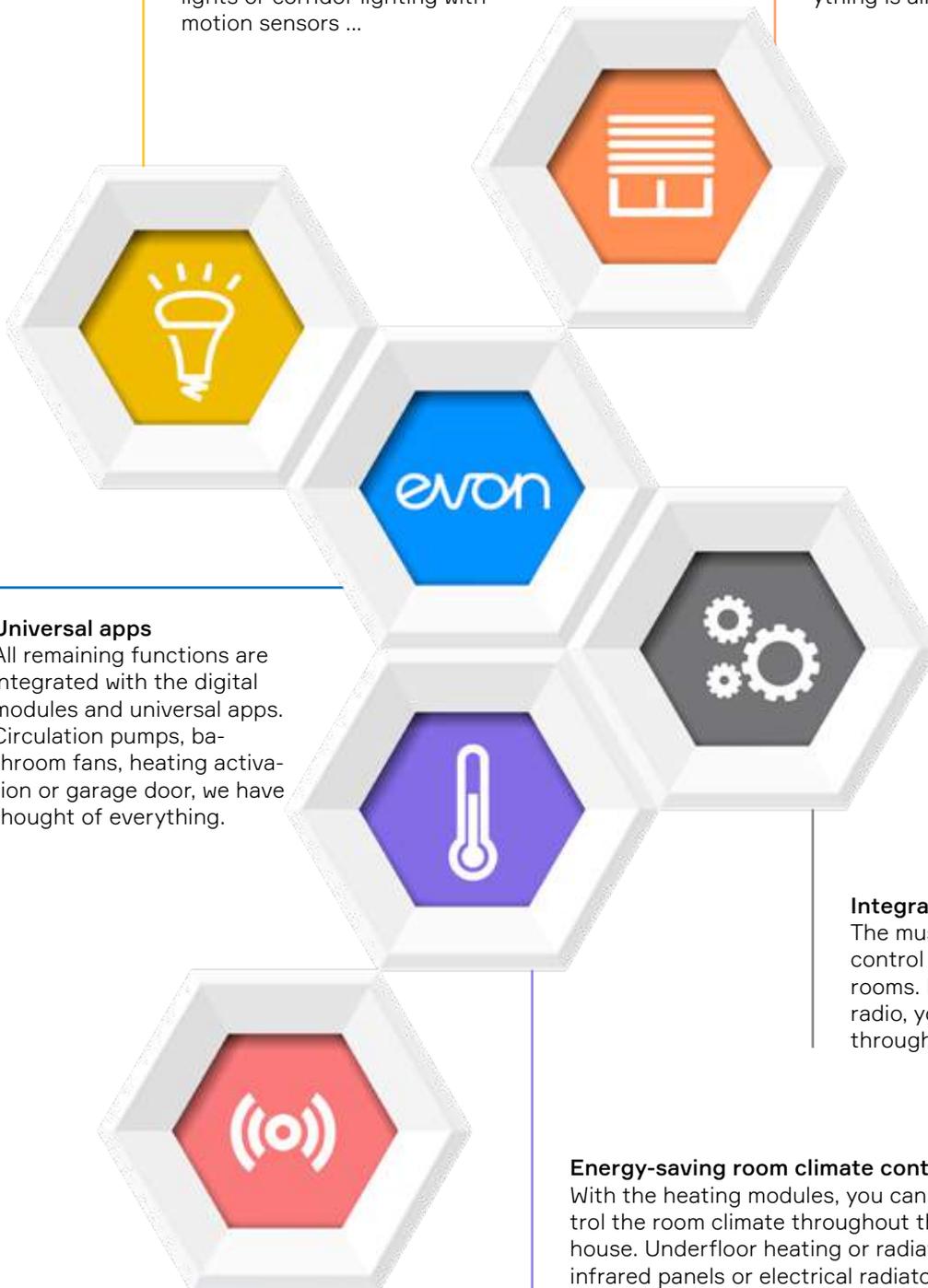
The cable is somewhat longer. To enable you to benefit from all smart home advantages, the cabling should be star-shaped, ideally with floor distributors.

Automated light control

You can control all lights in the house with the light modules. Regardless of whether they are dimmers, ceiling lights, reading lights or corridor lighting with motion sensors ...

Intelligent blind control

You control all shading elements in the house with the shading modules. Blinds, curtains, roller shutters or vertical lamella, everything is already prepared.



Universal apps

All remaining functions are integrated with the digital modules and universal apps. Circulation pumps, bathroom fans, heating activation or garage door, we have thought of everything.

Integrated multimedia services

The music apps allow you to control the loudspeakers in all rooms. Music servers or Internet radio, your music will resound throughout the house.

Energy-saving room climate control

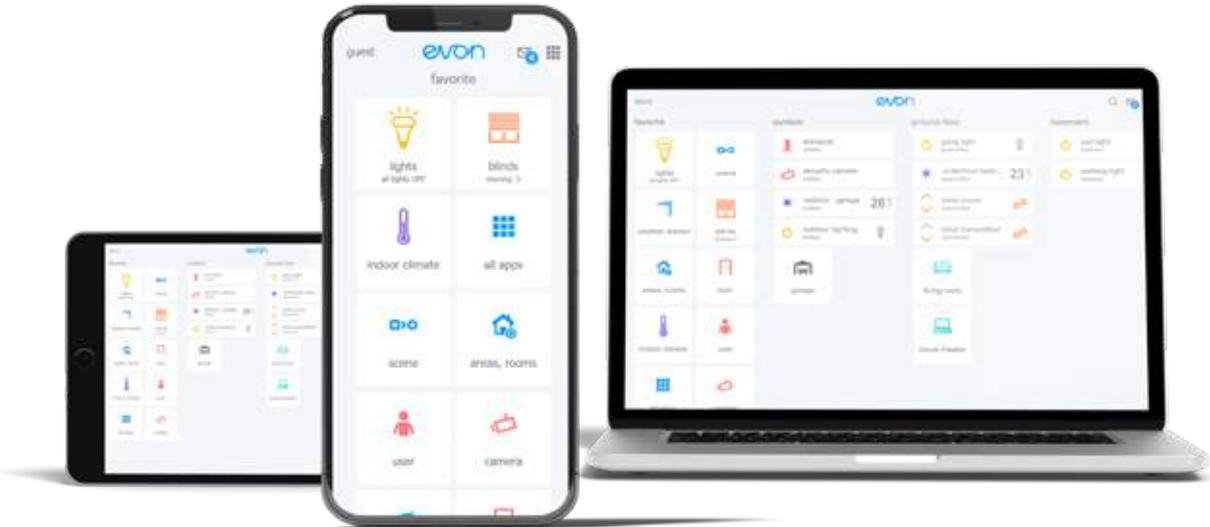
With the heating modules, you can control the room climate throughout the house. Underfloor heating or radiators, infrared panels or electrical radiators, we will deal with that for you.

Safe alarming

Make your home secure by incorporating motion sensors, window contacts, smoke, fire and water detectors. Whether acoustically or visually, you are securely alarmed at home and on the move.

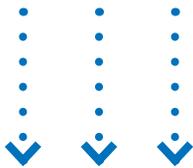
evon Smart Home – system set-up

State-of-the-art visualization and operation on Apple iOS (iPhone, iPad, Mac), Android smartphones and tablets, Windows phone, Windows tablets and PCs



- evon Smart Home was developed for standard cabling and standard buttons.
- All expensive special components of otherwise customary bus systems are therefore no longer necessary.
- Current and tried and tested components are used.

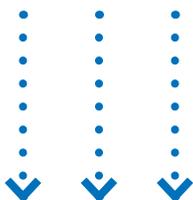
Standard switch program (e.g. ABB, Berker, Legrand ...)



Cabling
Low voltage 24 V



Standard cabling
Consumer unit



Standard consumer unit



Your evon Smart Home in 4 steps

1 Hardware

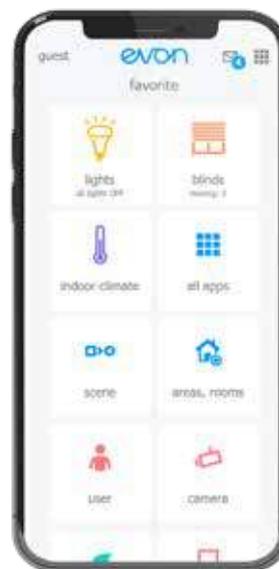


Before installing your evon Smart Home system you should heed certain things, including the number of modules required, the installation site and necessary additional components.

In addition, on our website at:

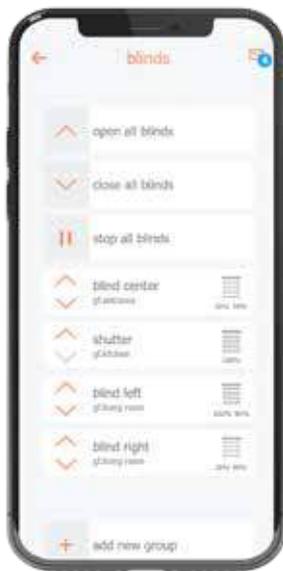
www.evon-smarthome.com you can find everything you need for your project in the **Downloads** areas.

2 App



With your new evon Smart Home you can not only control your house via buttons on the wall, but also via your PC, your tablet or a smartphone. You therefore always have your evon Smart Home with you, whether you are on the sofa or on the move and you have access to all functions which make your life easier.

3 Configuration



After you have connected to your system via the evon Smart Home app, you should initially state all connected devices (lights, shade elements, heating circuits, etc.) and assign them to rooms. This enables you to not only find and operate them more easily, but it also gives you access to further functions.

4 Scenes



A scene is a combination of several elements for joint control. For example, if when you are watching television you want to lower all shading elements in the living room, deactivate the main light and activate indirect lighting, you can combine these functions to form a scene.

More info and downloads can be found on our website: www.evon-smarthome.com

Do you have any questions? Here are the key answers.

How do I plan my evon Smart Home?

Every house is different and every home owner has their own ideas and desires. Planning is the very first phase to ensure that dreams become reality.

The central question: What should be controlled where? What: Light, heating, shade elements, watering the garden, doorbell ... How: With a button, via the evon Smart Home app, or completely automated with the functions we have prepared.

We have provided a tool on our website for support. The evon Smart Home configuration Excel can be found in the Downloads area at www.evon-smarthome.com.

It assists you with planning, supplies the exact number of modules required with exact cost information.

How large does the distributor need to be?

In principle, you can install evon Smart Home in any switching cabinet due to the standard “top hat” rail mounting with a 45 mm aperture. Space requirements are determined by the number of modules. Think of power supply units and load relays (e.g. 24 V relay adapted to your lighting). Basic rule for cabling: All lights, shade elements and other loads, and all buttons, window contacts and other sensors are placed into the respective distributors. For connection of the buttons we recommend the use of multicore remote control cables (F-YAY) or CAT5 cables per room, whereby you simply provide a 20 mm installation tube for each room. These are then clearly applied, preferably on LSA Plus strips. As a benchmark, you can anticipate 50 % greater spatial requirements in a switching cabinet compared to a standard installation.

What needs to be heeded with the wiring?

It is necessary to heed the following when installing the pipe:

- All lights, shade elements, valve drives and other loads must be installed in the assigned switching cabinet.
- Also provide a tube for the button lines for each room or room grouping.
- All lines for room control units, window contacts, etc. must also be installed in the correct switching cabinet.
- For example, if you want a weather station or surveillance cameras, you also need to plan for the necessary wiring.
- Do not forget connection to the floor distributors for 24 V energy supply, e.g. YML 2x1 and CAT5 cables for the data lead.
- Think precisely about where you want to place your button and which functions should be available. A pre-requisite for this is the prior selection of the switch material.
- In the room or the room grouping, simply loop on from the first switch group with an installation cable to the next.
- You should use deep boxes or spacious boxes as switch boxes – you will be pleased you did so later when clamping the cores.
- It is recommended to write everything down so that you subsequently have documentation to refer to.

How do I configure my evon Smart Home?

After you have connected to your system via the evon Smart Home app, you should initially state all connected devices (lights, shade elements, heating circuits, etc.) and assign them to rooms or areas. This enables you to not only find and operate them more easily, but also to have access to further functions.

You will learn how to state your devices and assign rooms to them in the following simple steps:

Open app

Open the evon Smart Home app on your terminal (e.g. iPad, iPhone, PC, Android tablet/phone or Windows tablet/mobile phone).

Open the "lights", "blinds" or "room climate" app according to what you want to set the names and rooms for. If the app is not displayed in the Favorites on the start page, you can also open it via „All Apps“.

Select device

In the apps you will see a list with central functions and a list of your devices underneath – this corresponds to the channels of your evon Smart Home modules. The central functions are described more precisely in the documentation for the respective app.

Tap on the area where the name and room are displayed, here tap on "no name", "no room" to open the settings for this device.

Assign names

Enter the name of the device in the "name" field. You can type in any name or select one of the pre-defined names by tapping on the small arrow.

Use obvious names such as ceiling light, ambient, radiator or wall heating according to the device and purpose. Tap on the Parameter symbol in the menu line.

Assign the room

Tap on the field to select a room. A series of names is pre-defined in the system which you can use. Should the appropriate room not feature in the list, you can also create your own rooms with the "App fields".

Close

You do not need to save your changes especially, simply tap in the menu line on the arrow symbol → to return to the overview.

How flexible is evon Smart Home?

The configuration of rooms, scenes, buttons, etc. can be changed on the smartphone/tablet/PC at any time. No programming knowledge is necessary. Simply call up the room in the app and change the desired parameters. Save. Finished.

More info?

www.evon-smarthome.com → Downloads



Controller
Controller iX800, Controller iX840



evon Smart Home

Controller iX800

Order no.: HC-iX800-01



135 mm = 7,8 TE

135 x 85 x 70 mm (w x h x d)

The centerpiece of the system with pre-installed evon Smart Home software. smartCOM communicates with the intelligent modules for light and shade control, climate regulation and other modules.

- Integrated web server
- Freescale i.MX6 Dual Core Light
- Power input: type. 1.5 W
- Online update
- Inputs for wind, rain, light sensors and house off switch
- Interfaces: 1x RS232, 1x RS485 or RS232, 2x USB, 1x LAN, 2x smartCOM, 1x tech-COM (maximum 31 modules per smart-COM line)
- Max. 2 Sound modules TS410
- Direct connection to weatherstation

evon Smart Home

Controller iX840

Order no.: HC-iX840-00



135 mm = 7,8 TE

135 x 85 x 70 mm (w x h x d)

The high end variant of the evon Smart Home controller. Is recommended for more than 40 smartCOM modules or when connecting more than one technology module.

- Integrated web server
- Freescale i.MX6 Quad Core
- Power input: type. 1.7 W
- Online update
- Inputs for wind, rain, light sensor and house off switch
- Interfaces: 1x RS232, 1x RS485 or RS232, 2x USB, 1x LAN, 2x smartCOM, 1x tech-COM (maximum 31 modules per smart-COM line)
- Max. 2 Sound modules TS410
- Direct connection to weather station

evon Smart Home
Controller iX800
Order no.: HC-iX800-01

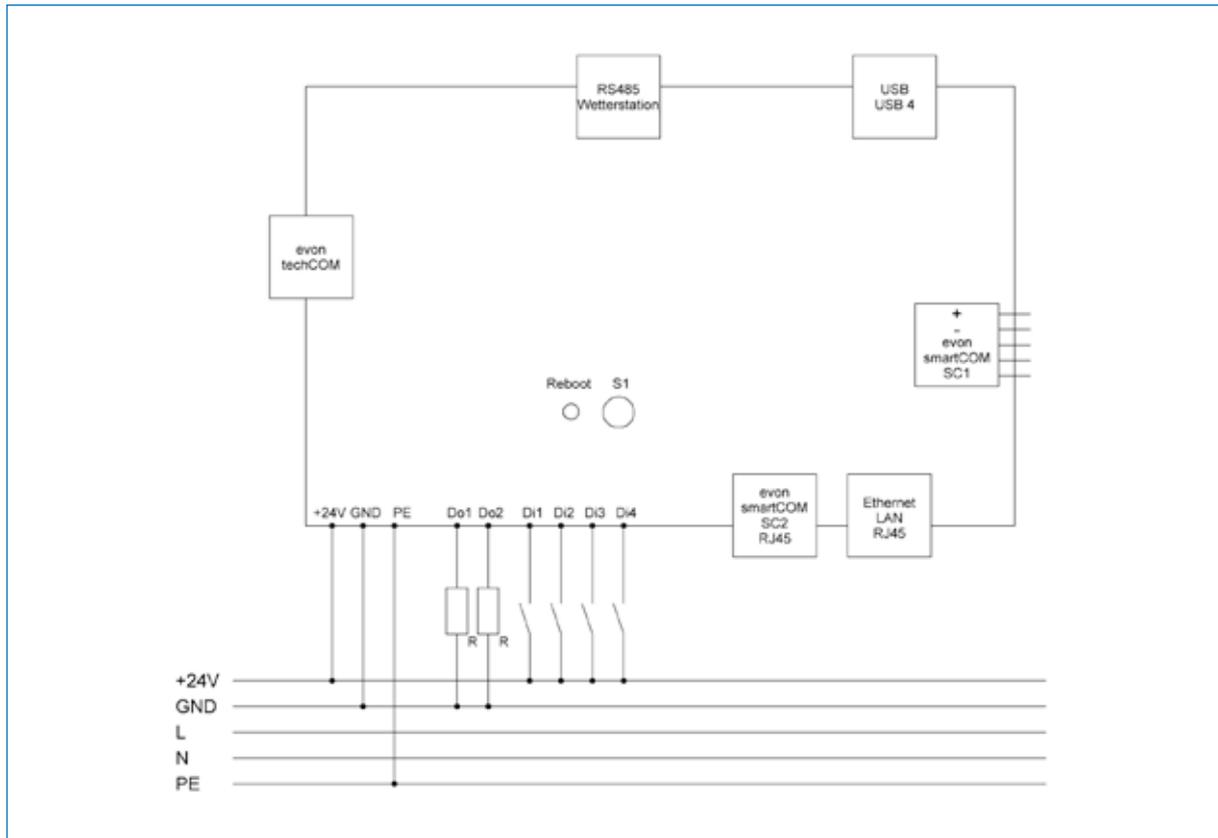
evon Smart Home
Controller iX840
Order no.: HC-iX840-00

Supply		
Supply voltage	24 V DC +/-10 %	24 V DC +/-10 %
Nominal consumption	max. 5 W	max. 5 W
Overvoltage category	2	2
Switch-on duration	100%	100%
Ambient conditions		
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing
Level of contamination	2	2
Terminals		
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20
Tests/approvals		
	CE	CE
System		
Microprocessor	Freescale i.MX6DL	Freescale i.MX6Q
LAN interface	10-/100-BaseT	10-/100-BaseT
smartCOM interface (SC 1/2)	Serial interface with control signals, max. 100 m cable length between 2 nodes, max. 31 modules per line	Serial interface with control signals, max. 100 m cable length between 2 nodes, max. 31 modules per line
techCOM interface	Interface for evon Smart Home technology module	Interface for evon Smart Home technology module
Input		
Type	4 digital inputs without galvanized isolation for rain, twilight, wind and House Off	4 digital inputs without galvanized isolation for rain, twilight, wind and House Off
Input voltage	See supply voltage	See supply voltage
Level	< 5 V DC = logisch 0 > 11 V DC = logisch 1	< 5 V DC = logisch 0 > 11 V DC = logisch 1
Input current	< 10 mA	< 10 mA
Input frequency	max. 25 Hz	max. 25 Hz
Output		
Type	2 digital outputs, semi-conductors, plus switching, short circuit-proof, protected from excess temperatures, not galvanically isolated	2 digital outputs, semi-conductors, plus switching, short circuit-proof, protected from excess temperatures, not galvanically isolated
Switching voltage	See supply voltage	See supply voltage
Switching current	max. 300 mA per output	max. 300 mA per output
Internal resistance	max. 400 mOhm	max. 400 mOhm

Important before commissioning

- Supply each module with voltage.
- Verify whether the GND supply corresponds to earth zero potential.
- Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays.
- The input channel must be only switched with 24 V direct current voltage.

Wiring example



Commissioning

- Start commissioning the system with the power off.
- Start installation work with a controller (e.g. iX800) or a converter module S1200 on the left side in the distribution box.
- The smartCOM modules can only ever be constructed from left to right.
- The techCOM modules can only ever be constructed from right to left.
- Place the enclosed 5-pole smartCOM line connector into the left plug jack of the module.
- Mount the module on the DIN top-hat rail, it snaps into place with a click.
- Push the module on the top-hat rail onto the left module in the system. Ensure that the detached pins of the plug connection ratchet into the jack of the secondary module.
- Please verify whether the GND supply of the 24V power supply unit corresponds to earth zero potential.
- The power LED lights up green after supplying of voltage.
- The boot process (LED running light) starts after a few seconds.
- As soon as the running light goes out and the controller LED flashes, the boot process is complete.
- Sufficient space needs to be provided in front of the controller when using technology modules.



Shade modules
Blind 1144, Blind 1244, Blind 1344



evon Smart Home

Blind 1144

Order no.: HC-B1144-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home shade module for 2 shade elements to connect 2 actuators with separate OPEN/CLOSED cables (4 relays 230 V AC/24 V DC, 5 A) and 4 direction buttons 24 V. voltage supply 24 V DC and 230 V (motors).

- 2 separate channels

- Positioning on position and angle

- For all standard drives (open/closed relay)

- Autarchic function

evon Smart Home

Blind 1244

Order no.: HC-B1244-00



 **67,5 mm = 3,9 TE**
67,5 x 85 x 70 mm (w x h x d)

evon Smart Home shade module for 2 shade elements with reverse circuit to connect 2 24 V DC actuators without separate OPEN/CLOSED cables (3 relays 24 V DC, 5 A) and 4 direction buttons 24 V. voltage supply 24 V DC. WARNING: No simultaneous OPEN and CLOSED passage of both channels possible.

- 2 separate channels

- Positioning on position and angle

- For all reverse circuit drives (with 24 V DC)

- Autarchic function

evon Smart Home

Blind 1344

Order no.: HC-B1344-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home shade module for 2 Schlotterer Retrolux or standard shade elements to connect 2 actuators to separate OPEN/CLOSED lines (4 relays 230 V AC/24 V DC, 5 A) and 4 direction buttons 24 V. Voltage supply 24 V DC and 230 V (motors).

- Mode for Schlotterer RETROLux blind

- 2 separate channels

- Positioning on position and angle

- For all standard drives (open/closed relay)

- Autarchic function

evon Smart Home

Blind 1144

Order no.:
HC-B1144-00

evon Smart Home

Blind 1244

Order no.:
HC-B1244-00

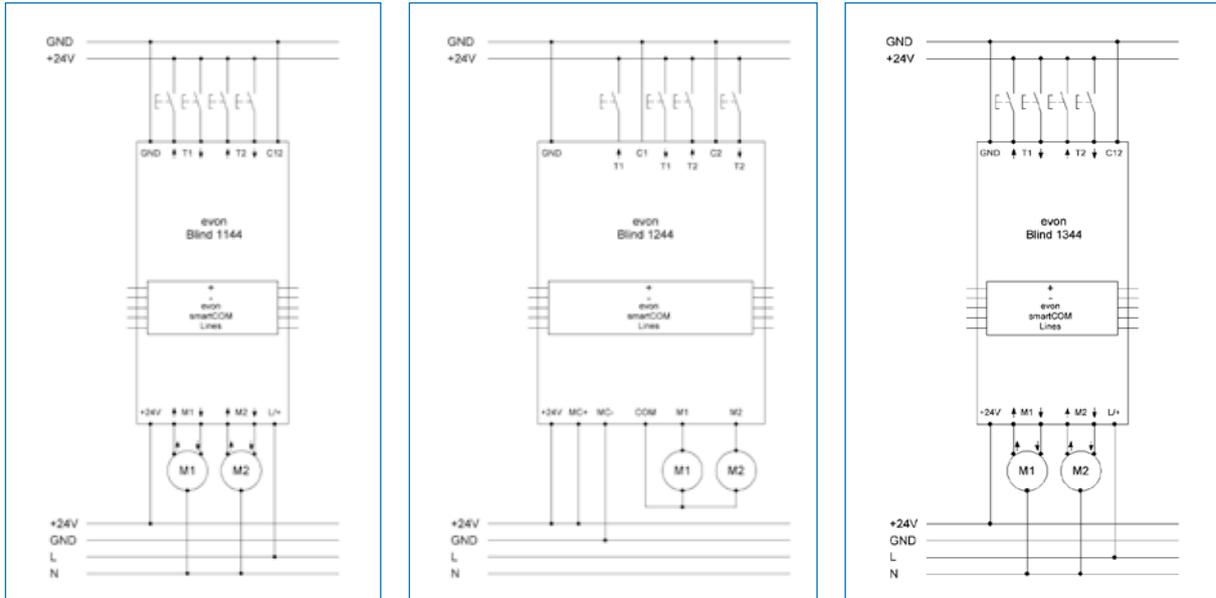
evon Smart Home

Blind 1344

Order no.:
HC-B1344-00

Supply			
Supply voltage	24 V DC +/-10 %	24 V DC +/-10 %	24 V DC +/-10 %
Nominal consumption	max. 2 W	max. 2 W	max. 2 W
Overvoltage category	2	2	2
Switch-on duration	100%	100%	100%
Ambient conditions			
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing
Level of contamination	2	2	2
Terminals			
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20	IP 20
Tests/approvals			
	CE	CE	CE
Input			
Type	Digital input	Digital input	Digital input
Type	pot. free digital input	pot. free digital input	pot. free digital input
Number	4	4	4
Terminals	Up/down T1..T2	Up/down T1..T2	Up/down T1..T2
Measurement isolation voltage	250 V AC	250 V AC	250 V AC
Input voltage	See supply voltage	See supply voltage	See supply voltage
Level	< 5 V DC = logical 0 > 15 V DC = logical 1	< 6 V DC = logical 0 > 7 V DC = logical 1	< 5 V DC = logical 0 > 15 V DC = logical 1
Input resistance	min. 3000 Ohm	min. 3000 Ohm	min. 3000 Ohm
Input frequency	0...10 Hz	0...10 Hz	0...10 Hz
Recommended protection			
	B6 (IEC/EN 60898-1)	B6 (IEC/EN 60898-1)	B6 (IEC/EN 60898-1)
Output relay			
Type	Digital output	Digital output	Digital output
Type	Pot. free relay contact, closer	Pot. free relay contact, closer	Pot. free relay contact, closer
Number	4	4	4
Terminals	M Up/down 1..2	M Up/down 1..2	M Up/down 1..2
Max. ohmic load	1150W	1150W	1150W
Max. motor load (cosPhi >= 0,95)	500W	500W	500W
Min. load	5V/1mA	5V/1mA	5V/1mA
Switching voltage AC	250V, 50/60Hz	250V, 50/60Hz	250V, 50/60Hz
Switching current AC (cosPhi = 1)	5A (250V)	5A (250V)	5A (250V)
Switching voltage DC	9..30V	9..30V	9..30V
Switching current DC	5A (24V)	5A (24V)	5A (24V)

Wiring example



Commissioning information

→ See page 66.

Comments

- Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays.
- The input channel must be only switched with 24 V direct current voltage.
- All channel switching functions are available and testable after installation. (Blind button up/down switches blind motor up/down)
- Buttons of other separate potential levels can also be integrated via C12 or C1/C2.
- Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays.
- The input channel must be switched with 24 V direct current voltage.
- All channel switching functions are available and testable after installation.



Light modules

**Light 1144, Light 1244, Light 1544,
Light 1424, Light 1644**



evon Smart Home

Light 1144

Order no.: HC-L1144-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home light module for 4 light circuits to connect 4 load relays and 4 light buttons 24 V. Voltage supply 24 V DC.
WARNING: Additional load relay necessary according to light type.

- 4 separate channels
- Button/motion detector operation
- Autarchic function
- Energy saving function

evon Smart Home

Light 1244

Order no.: HC-L1244-00



 **67,5 mm = 3,9 TE**
67,5 x 85 x 70 mm (w x h x d)

evon Smart Home light module for 4 light circuits to connect 4 consumer units via bistable relays (4 relays 230 V AC, 16 A) and 4 light buttons 24 V. voltage supply 24 V DC.

- 4 separate channels
- Button/motion detector operation
- Autarchic function
- Energy saving function

evon Smart Home

Light 1544

Order no.: HC-L1544-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home light module for 4 dimmable light circuits to connect 4 external dimmer packs 0..10 V and 4 light buttons 24 V. WARNING: Additional dimmer packs necessary.

- 4 separate dimming channels
- Autarchic function
- Energy saving function

evon Smart Home

Light 1424

Order no.: HC-L1424-00



67,5 mm = 3,9 TE

67,5 x 85 x 70 mm (w x h x d)

evon Smart Home light module for 2 dimmable light circuits to connect 2 external dimmer packs 0..10 V, 2 free-switching contacts, 2 light buttons and 2 freely definable digital inputs 24 V. Voltage supply 24 V DC.

WARNING: Additional dimmer packs necessary.

→ 2 separate dimming channels

→ Autarchic function

→ Energy saving function

evon Smart Home

Light 1644

Order no.: HC-L1644-00



67,5 mm = 3,9 TE

67,5 x 85 x 70 mm (w x h x d)

evon Smart Home light module for direct control of up to 4 LED light circuits. Only supports "common anode" LED type.

→ 2 operating modes (1 x RGBW or 4 x white)

→ Autarchic function

→ Energy saving function

evon Smart Home

Light 1144

Order no.:
HC-L1144-00

evon Smart Home

Light 1244

Order no.:
HC-L1244-00

evon Smart Home

Light L1424

Order no.:
HC-L1424-00

Supply

Supply voltage	24 V DC +/-10 %	24 V DC +/-10 %	24 V DC +/-10 %
Nominal consumption	max. 2 W	max. 2 W	max. 2 W
Overtoltage category	2	2	2
Switch-on duration	100%	100%	100%

Ambient conditions

Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing
Level of contamination	2	2	2

Terminals

Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20	IP 20

Tests/approvals

	CE	CE	CE
--	----	----	----

Input

Type	Digital input	Digital input	Digital input
Type	pot. free digital input	pot. free digital input	pot. free digital input
Number	4	4	4
Terminals	T1..T4	T1..T4	T1..T4
Measurement isolation voltage	250 V AC	250 V AC	250 V AC
Input voltage	See supply voltage		
Level	< 5 V DC = logical 0 > 15 V DC = logical 1	< 0,5 V DC = logical 0 > 8 V DC = logical 1	< 12 V DC = logical 0 > 19 V DC = logical 1
Input resistance	min. 3000 Ohm	min. 11.500 Ohm	min. 10.500 Ohm
Input frequency	0..10 Hz	0..5 Hz	0..5 Hz

Recommended protection

	B6 (IEC/EN 60898-1)	B13 (IEC/EN 60898-1)	B13 (IEC/EN 60898-1)
--	---------------------	----------------------	----------------------

Output

Type	Digital output	Digital output	Digital/analogue
Type	Pot. free relay contact, closer	Pot. free relay contact, closer	Spannungsausgang 0..10V, 12 Bit (Accuracy < 2%), Electricity: max. 5 mA
Number	4	4	2
Terminals	L1..L4	L1..L4	Do1..Do2
Ohmic load	1150W	2300W	2300W
Pulp/halogen lamp (230V AC)	300W	2300W	1000W
Halogen lamp (transformer 6..24V)	150W	1800W	500W
LED lamps (EVG)	100W	1000W	300W
LED lamps (230V AC)	30W	500W	100W
Luminescent screen tube (VVG)	60W	800W	200W
Luminescent screen tube (EVG)	100W	1000W	300W
Compact luminescent screen tube (CFL)	30W	500W	100W
Switching voltage AC	250V	250V	250V
Switching current AC (cosPhi = 1)	5A	10A	10A
Switching voltage DC	9..30V	9..30V	9..30V
Switching current DC (cosPhi = 1)	5A	10A	10A
Min. load	5V/1mA	12V/100mA	12V/100mA
Ausgang Analog	-	-	2
Type	-	-	Analogue output
Type	-	-	Voltage output 0..10 V
Terminals	-	-	Ao1..2
Resolution	-	-	12 Bit (Accuracy < 2%)
Electricity	-	-	max. 5 mA

evon Smart Home

Light 1544

Order no.: HC-L1544-00

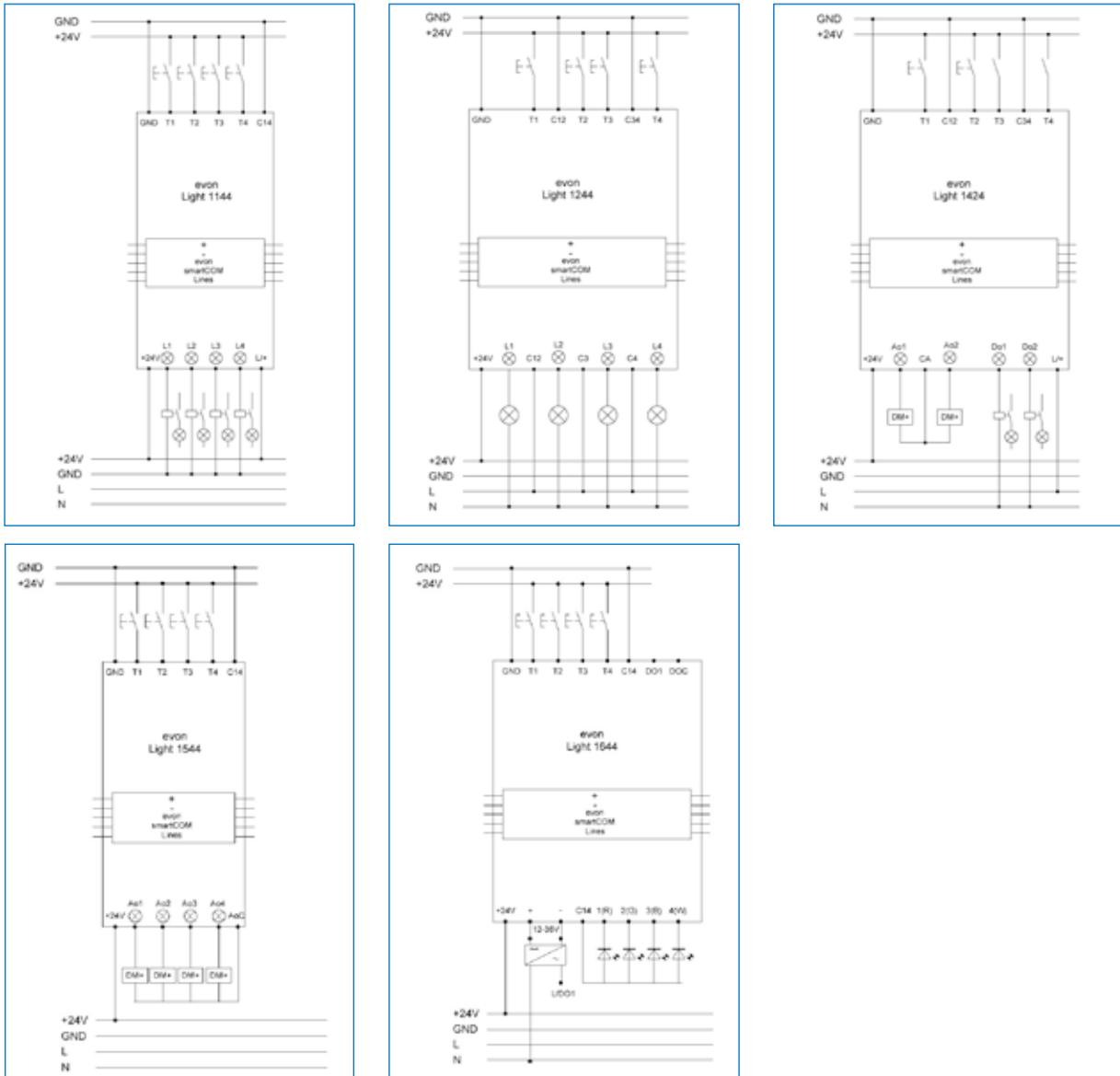
evon Smart Home

Light 1644

Order no.: HC-L1644-00

Supply		
Supply voltage	24 Vdc +/-10 %	24 Vdc +/-10 %
Nominal consumption	max. 2 W	max. 2 W
Switch-on duration	100%	100%
Ambient conditions		
Operating conditions		
Non-condensing	-15..+55°C, 5..90 % rH	-15..+55°C, 5..90 % rH
Level of contamination	2	2
Terminals		
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20
Tests/approvals		
	CE	CE
Input		
Type	Digital input	Digital input
Type	pot. free digital input	pot. free digital input
Number	4	4
Terminals	T1..T4	T1..T4
Input voltage	See supply voltage	See supply voltage
Input resistance	min. 10.500 Ohm	min. 10.500 Ohm
Input frequency	0...5Hz	0...5Hz
Max. recommended cable length	30 m	30 m
LED-Ausgang		
Type		Mass-switching semi-conductor without galvanic isolation (PWM)
LED type		common anode
Cable shielding necessary		no
Number		4
Terminals		1(R) 2(G) 3(B) 4(W)
Electricity		max. 5 A pro output
Max. recommended cable length		30 m
Supply voltage for LEDs		12-36Vdc
Relay output		
Type		Pot. free relay output (closer)
Number		1
Overvoltage category		2
Measurement category		250 Vac
Thermal current		max. 10 A
Switch-on current		max. 120 A max. 20 ms
Switching voltage		12 V..230 V AC/DC
Analogue output for external dimmer pack		
Type	Analogue output	
Type	Voltage output 0..10V	
Number	4	
Terminals	Ao1..4	
Resolution	12 Bit (Accuracy < 2%)	
Electricity	max. 10 mA	

Wiring example



Commissioning information

→ See page 66.

Comments

- Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays dependent on the module type.
- The input channel must be only switched with 24 V direct current voltage.
- All channel switching functions are available and testable after installation. (Button light on/off switches light on/off)
- Inputs can be configured as motion detectors or buttons.
- Buttons of other separate potential levels can also be integrated via C14 or C12/C34.
- Light 1244: This same phase must always be used for all roots in a module.
- Light 1424: T3 and T4 can be used as digital inputs.
- Light 1644: Only use LED strips of the "common anode" type.
- Light 1644: The digital output (DO1) can be used as a free-switching contact for external voltage supply.



Climate modules
Clima 1144, Clima 1244



evon Smart Home

Clima 1144

Order no.: HC-C1144-00



45 mm = 2,6 TE

45 x 85 x 70 mm (w x h x d)

evon Smart Home individual room controller for 4 control zones to connect 4 heating/cooling valves (4 relays 230 V AC/24 V DC, 5 A) and 4 C110X room operating devices. Voltage supply 24 V DC and 230 V (valves).

- 4 separate control zones

- Convenience, energy saving and frost protection mode

- For all thermal valve drives (24 V DC / 230 V AC)

- Cooling operation possible

- Autarchic function

evon Smart Home

Clima 1244

Order no.: HC-C1244-01



45 mm = 2,6 TE

45 x 85 x 70 mm (w x h x d)

evon Smart Home individual room controller for 4 control zones to connect 4 heating/cooling valves (4 digital outputs 24 V DC or 230V AC, 1.3 A) and 4 room temperature sensors C1010.

- 4 separate control zones

- Convenience, energy saving and frost protection mode

- Cooling operation possible

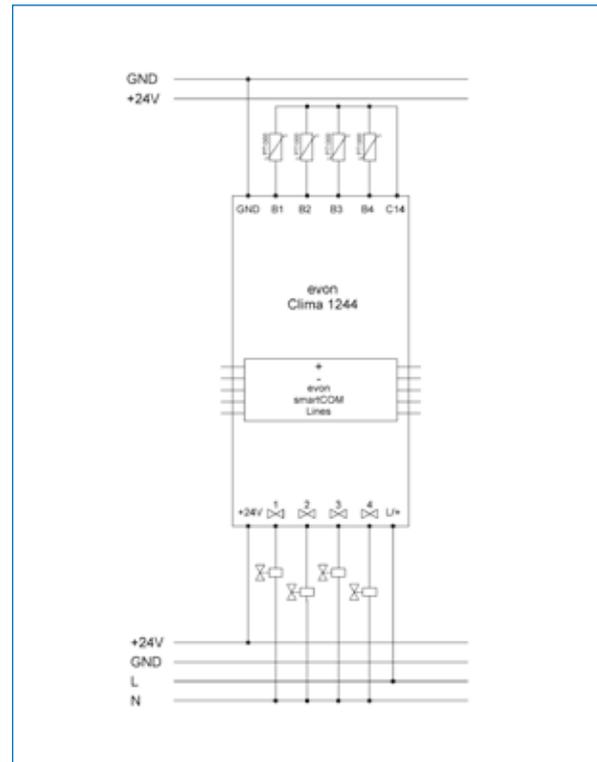
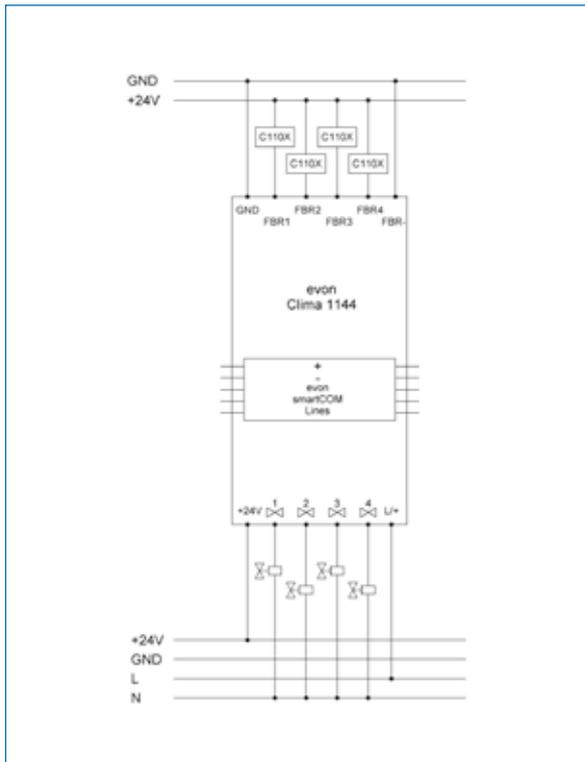
- Autarchic function

evon Smart Home
Clima 1144
 BNr.: HC-C1144-00

evon Smart Home
Clima 1244
 BNr.: HC-C1244-01

Supply		
Supply voltage	24 V DC +/-10 %	24 Vdc +/-10 %
Nominal consumption	max. 2 W	max. 2 W
Overvoltage category	2	
Switch-on duration	100%	100%
Ambient conditions		
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	
Level of contamination	2	2
Terminals		
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20
Tests/approvals		
	CE	CE
Input		
Type	Room operating device	Analogue input
Type	–	PT1000 Inputs
Number	4	4
Terminals	FBR1..4	B1..B4
Measurement isolation voltage	250 V AC	
Measuring current	–	<700µA
Measuring range	–	-200...+320°C
Resolution	–	0,1K
Accuracy	–	0,2K
Recommended protection		
	B6 (IEC/EN 60898-1)	B6 (IEC/EN 60898-1)
Output		
Type	Digital output	Digital output
Type	Pot. free relay contact, closer	Pot. free relay contact, closer
Number	4	4
Terminals	Valve 1..4	Valve 1..4
Max. ohmic load	1150W	1150W
Max. motor load (cosPhi >= 0,95)	500W	500W
Minimum load	5V/1mA	5V/1mA
Switching voltage AC	250V, 50/60Hz	250V, 50/60Hz
Switching current AC (cosPhi = 1)	5A (250V)	5A (250V)
Switching voltage DC	9..30V	9..30V
Switching current DC	5A (24V)	5A (24V)

Wiring example



Commissioning information

→ See page 66.

Comments

- Clima 1144: An evon room operating device C110X must be connected to the input channel.
- Channel functions are available and testable after installation. (Convenience, energy saving, frost protection, cooling operation)
- Use normally closed (NC) actuators (230 V or 24 V).
- All channel functions are available and testable after installation. (convenience operation, energy saving operation, frost protection operation)



Room operating devices
**Room operating device C110X,
Sensor C1010**



evon Smart Home

Room operating device C110X

Order no.: HC-C110X-00



evon Smart Home room operating device in 2-wire technology to connect to a Clima 1144 module.

- 4 models available:
 - Room temperature sensor (C1100)
 - Room temperature sensor, target value adjustment (C1101)
 - Room temperature sensor, target value setting, selector switch (C1102)
 - Room temperature sensor, target value adjustment, selector switch, button (C1103)
 - Room temperature sensor, target value setting, button (C1104)

→ 2-conductor connection

→ Surface installation

→ EcoLine

evon Smart Home

Room operating device C1109

Order no.: HC-C1109-00



evon Smart Home touch room operating device in wire technology for connecting to a Clima 1144 module.

- Sensor touch operation for target value correction and operating type selection
- Status display via LEDs
- Standby/night operation (LED off)
- 2-conductor connection
- Flush mounting, Insets 50 x 50 mm

evon Smart Home

Sensor C1010

Order no.: HC-C1010-00



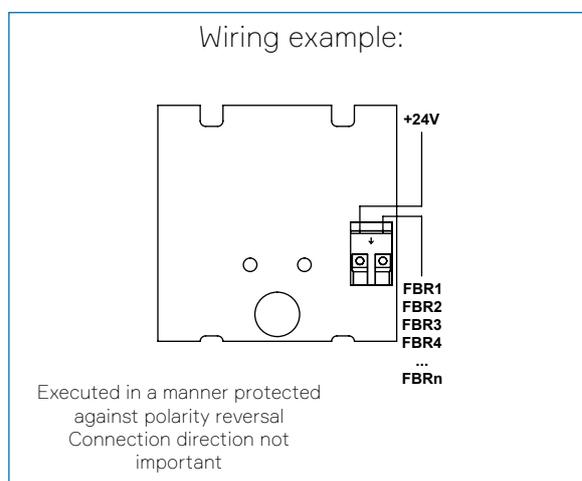
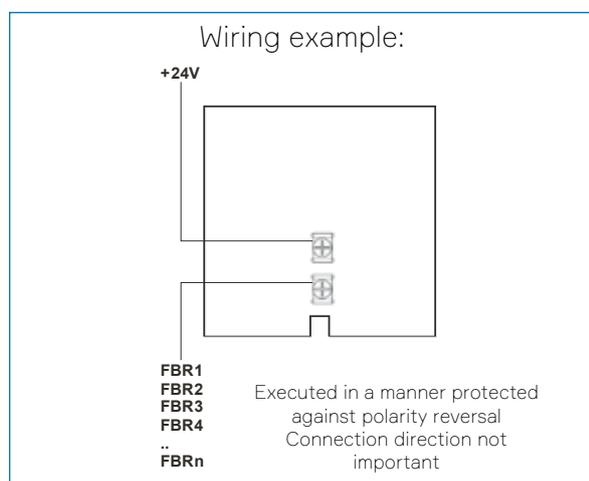
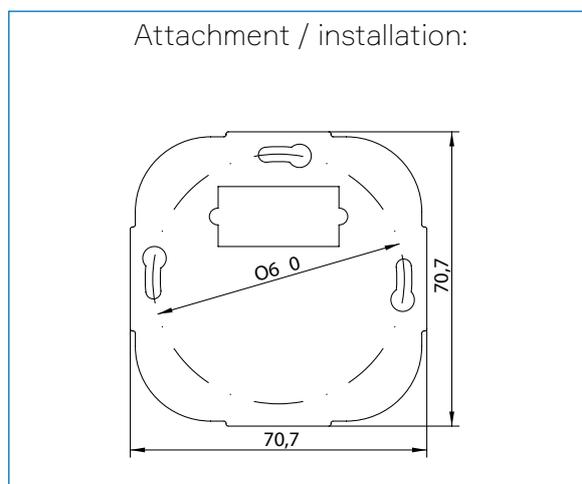
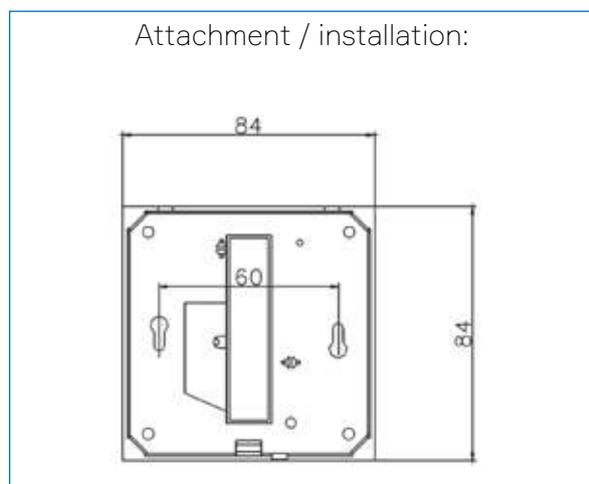
evon Smart Home Sensor PT1000 for connection to the modules: Analogue 1240, Analogue 1380, Clima 1244.

- Protected against polarity reversal
- Attention: For correct values the sensor must have best possible contact to the ambient air, for example behind blind covers with circulation openings.

evon Smart Home
Room operating device C110X
Order no.: HC-C110X-00

evon Smart Home
Room operating device C1109
Order no.: HC-C1109-00

Supply		
Supply voltage	24 V DC +/-10 %	24V DC +/- 10%
Nominal consumption	max. 50 mW	Max. 40 mW
Overvoltage category	2	2
Switch-on duration	100%	100%
Ambient conditions		
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	-20°C ... +60°C, 10% ... 95% rH , Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	-20°C ... +60°C, 10% ... 95% rH , Non-condensing
Level of contamination	2	2
Terminals		
Terminal capacity	max. 2 x 1,5 mm ²	AWG 22 ... 18, 0,34mm ² ... 0,75 mm ²
Screws	Phillips Ne.2	Spring force terminal 6mm ... 7mm
Tightening torque	0,5 Nm	
Protection class (EN 60529)	IP 20	IP 30
Tests/approvals		
	CE	CE
Temperature measurement		
Accuracy	+25°C: +/-0,5°C -10..+85°C: +/-1°C	+5°C ... 60°C +/- 0.5 °C 0% ... 100% rH 4% rH Non-condensing



evon Smart Home

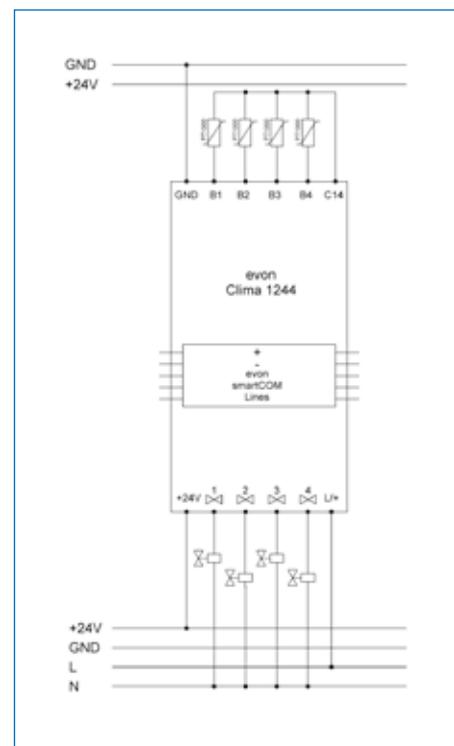
Sensor C1010

Order no.: HC-C1010-00

Sensor	
Type	PT1000-B
Accuracy	EN60751 F0.3 (0,3+0,005x t) t Temperature in °C without a sign -70°C 0,65 K 0°C 0,3 K 100°C 0,80 K
Voltage on the sensor	max. 15 V
Overvoltage protection	Affix internal ESD protection
Recommended measuring current	0,1..0,3 mA max. 2 mA
Switch-on duration	100%
Mechanics (housing)	
Dimensions	10 x 25 x 7 mm
Protection class (EN 60529)	IP00
Attachment	The surface must be dust- and fat-free
Weight	1,3 g
Terminals	
Type	Spring force terminal
Tool	Pen, screwdriver
Terminal capacity	AWG 22..18 Single-wired, 0,34..0,75 mm ² fine-stranded, 0,34..0,75 mm ²
Stripping length	6..7 mm
Contact resistance	< 20 mOhm
Tests/approvals	
CE	
Ambient conditions	
Recommended processing temperature	+18°C..+35°C
Ambient temperature (operation)	-40°C..+80°C
Relative air humidity (operation)	10..95% rH, Non-dewing
Storage ability	12 Mon. @+23°C; 20..70% rH
Level of contamination (EN 60664-1)	1

Wiring example

C1010 sensor to Clima 1244 module (also possible on Analog 1240 and Analog 1380 modules).



Comments

- Standard sensor PT1000 Bipolar is used on the Analog 1240, Analog 1380 and Clima 1244 modules.
- Connections protected from polarity reversal.



Digital modules
Digital 1180, Digital 1208, Digital 1344



evon Smart Home

Digital 1180

Order no.: HC-D1180-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home digital module for 8 digital inputs 24 V DC.

- 8 digital inputs 24 V DC
- To connect: Scene button, window contact, etc.
- Start evaluation: Short, long, double pressing of button
- Status display via LED

evon Smart Home

Digital 1208

Order no.: HC-D1208-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home digital module for 8 digital outputs.

- 8 digital relay outputs 24 V DC / 230 V AC / 5 A ohmic
- To connect: Door opener, signal lamp, circulation pump, etc.
- Status display via LED

evon Smart Home

Digital 1344

Order no.: HC-D1344-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

evon Smart Home digital module for 4 digital inputs and 4 digital outputs.

- 4 digital inputs 24 V DC
- To connect: Scene button, window contact, etc.
- Start evaluation: Short, long, double pressing of button
- 4 digital relay outputs 24 V DC / 230 V AC / 5 A ohmic
- To connect: Door opener, signal lamp, circulation pump, etc.
- Status display via LED

evon Smart Home

Digital 1180

Order no.:
HC-D1180-00

evon Smart Home

Digital 1208

Order no.:
HC-D1208-00

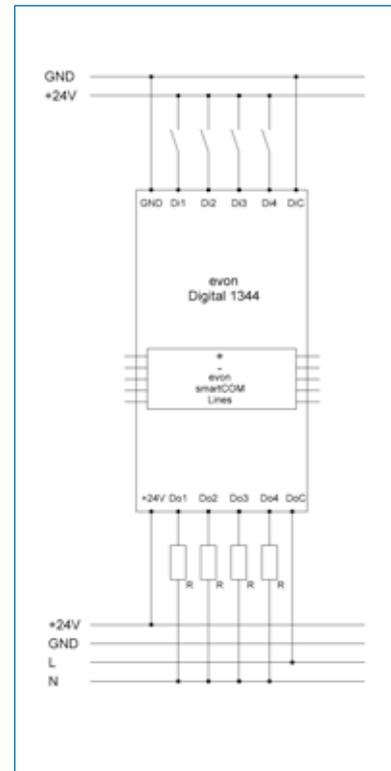
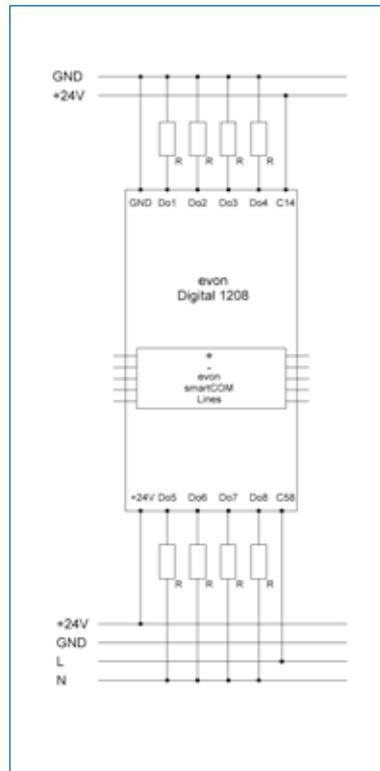
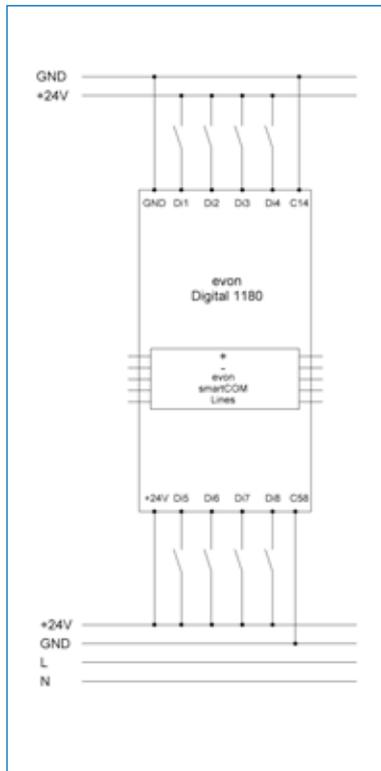
evon Smart Home

Digital 1344

Order no.:
HC-D1344-00

Supply			
Supply voltage	24 V DC +/-10 %	24 V DC +/-10 %	24 V DC +/-10 %
Nominal consumption	max. 2 W	max. 2 W	max. 1 W
Overtoltage category	2	2	2
Switch-on duration	100%	100%	100%
Ambient conditions			
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing	-15..+55°C, 5..90 % rH, Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing	-25..+70°C, 5..90 % rH, Non-condensing
Level of contamination	2	2	2
Terminals			
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20	IP 20
Tests/approvals			
	CE	CE	CE
Input			
Type	Digital input	–	Digital input
Type	pot. free digital input	–	pot. free digital input
Number	8	–	4
Terminals	Di 1..8	–	Di 1..4
Measurement isolation voltage	250 V AC	–	250 V AC
Input voltage	See supply voltage	–	See supply voltage
Level	< 5 V DC = logical 0 > 15 V DC = logical 1	–	< 5 V DC = logical 0 > 15 V DC = logical 1
Input voltage	min. 3000 Ohm	–	min. 3000 Ohm
Input frequency	0...10 kHz	–	0...2 Hz
Recommended protection			
		B6 (IEC/EN 60898-1)	B6 (IEC/EN 60898-1)
Output			
Type	–	Digital output	Digital output
Type	–	Pot. free relay contact, closer	Pot. free relay contact, closer
Number	–	8	4
Terminals	–	Do 1..8	Do 1..4
Max. ohmic load	–	1150W	1150W
Max. engine load (cosPhi >= 0,95)	–	500W	500W
Minimum load	–	5V/1mA	5V/1mA
Switching voltage AC	–	250V, 50/60Hz	250V, 50/60Hz
Switching electricity AC (cosPhi = 1)	–	5A (250V)	5A (250V)
Switching voltage DC	–	9..30V	9..30V
Switching electricity DC	–	5A (24V)	5A (24V)

Wiring example



Commissioning information

→ See page 66.

Comments

- Digital 1180: The input channel must be only switched with 24 V direct current voltage.
- Digital 1208: Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays. Outputs of other separate potential levels can also be integrated via C14/C58.
- Digital 1344: The input channel must be only switched with 24 V direct current voltage. Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays. Outputs of other separate potential levels can also be integrated via DoC.



Analogue modules
Analog 1144, Analog 1240, Analog 1380



evon Smart Home

Analog 1144

Order no.: HC-A1144-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

The evon Smart Home analogue module A1144 offers four analogue voltage inputs with a measurement range of 0 to 10 V and four analogue voltage outputs of 0 to 10 V.

- 4 analogue inputs
0..10 V DC

- 4 analogue outputs
0..10 V DC

evon Smart Home

Analog 1240

Order no.: HC-A1240-01



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

The evon Smart Home analogue module A1240 possesses 4 PT1000 input channels.

- 4 analogue inputs
PT1000

evon Smart Home

Analog 1380

Order no.: HC-A1380-00



 **45 mm = 2,6 TE**
45 x 85 x 70 mm (w x h x d)

The evon Smart Home analogue module A1380 possesses 8 PT1000 or KTY input channels.

- 8 analogue inputs

- PT1000 or KTY
(81-110, 81-210)

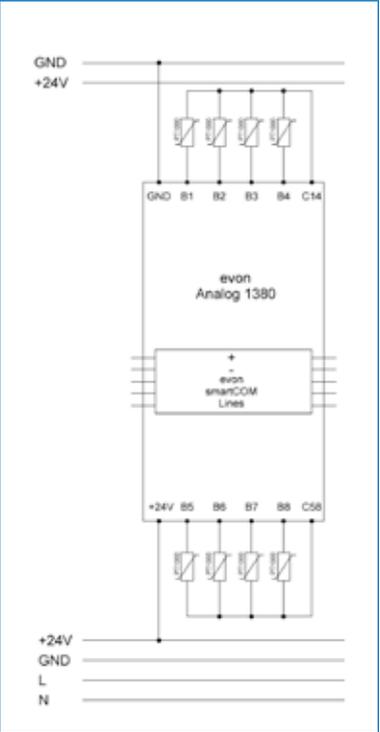
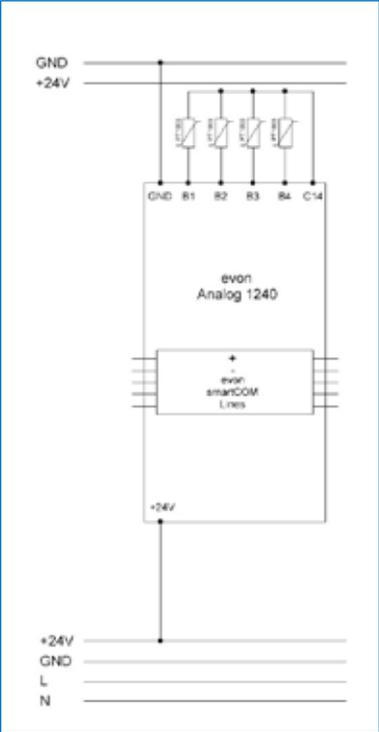
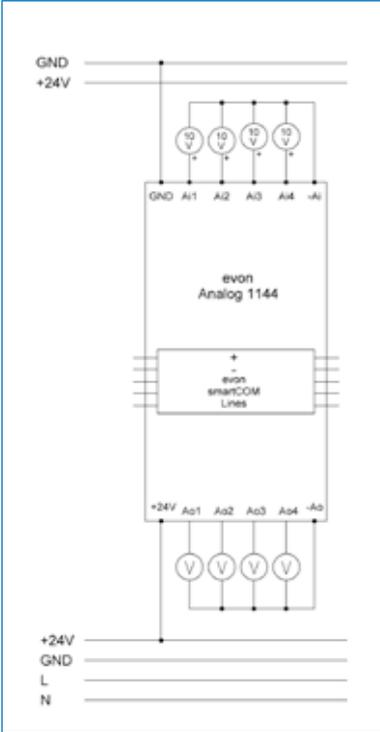
evon Smart Home
Analog 1144
 BNo.: HC-A1144-00

evon Smart Home
Analog 1240
 BNo.: HC-A1240-01

evon Smart Home
Analog 1380
 BNo.: HC-A1380-00

Supply			
Supply voltage	24 V DC +/-10 %	24 V DC +/-10 %	24 V DC +/-10 %
Nominal consumption	max. 2 W	2 W	max. 2 W
Overvoltage category	2	2	2
Switch-on duration	100%	100%	100%
Ambient conditions			
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing		
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing		
Level of contamination	2	2	2
Klemmen			
Terminal capacity	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²	max. 2 x 1,5 mm ²
Screws	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm	Pozidriv 1 / Slot 4 x 0,8 mm
Tightening torque	0,4 Nm	0,4 Nm	0,4 Nm
Protection class (EN 60529)	IP 20	IP 20	IP 20
Tests/approvals			
	CE	CE	CE
Input			
Type	Analogue input	Analogue input	Analogue input
Type	Voltage input	PT1000 Inputs	PT1000/KTY81-110/KTY81-210 Inputs
Number	4	4	8
Terminals	Ai1..Ai4	B1..B4	B1..B8
Measurement isolation voltage	No galvanic isolation for supply voltage	No galvanic isolation for supply voltage	No galvanic isolation for supply voltage
Input voltage	0..10 V	No voltage may be applied	No voltage may be applied
Measuring range	0..10 V	-200..+320°C	-50..+150°C
Measuring current	0,5 mA@10 V	<700µA	500..900 µA
Resolution	10 Bit	0,1K	0,1 K
Sampling interval	10 S/s		0,78 S/s (Filter delay time = x10)
Accuracy			< 0,1 K @+25°C
Output			
Type	Analogue output		–
Type	Voltage output		–
Number	4		–
Terminals	Ao1..Ao4		–
Measurement isolation voltage	No galvanic isolation for supply voltage		–
Signal delay		nom. 640 ms	
Output voltage	0..10 V	0,2K	–
Output current	max. 5 mA		–
Resolution	12 Bit		–

Wiring example



Commissioning information

→ See page 66.

Comments

→ Analog 1380: PT1000, KTY81-110 and KTY81-210 sensors can be connected to the module inputs.



Technology modules
Sound module, auxiliary module



evon Smart Home

Sound module TS410

Order no.: HC-TS410-00



67,5 mm = 3,9 TE

67,5 x 85 x 70 mm (w x h x d)

The evon Smart Home sound module controls background music and the speech output – in 2 zones (stereo) or in up to 4 zones (Mono). A sound module can be operated with the iX800 controller and a maximum of 2 sound modules can be operated with the iX840 controller.

- FM radio receiver

- AUX input (Line-In)

- 2 freely definable sound sources (Internet radio, local media, media server access/ NAS via UPnP)

- Speech output

evon Smart Home

Auxiliary module TA200

Order no.: HC-TA200-00



45 mm = 2,6 TE

45 x 85 x 70 mm (w x h x d)

The evon Smart Home technology module Auxiliary extends the evon Smart Home controller with 2 additional RS485 interfaces (e.g.: connection of access system, etc.).

- 2 x RS485 (galvanically isolated)

- Up to 8 fingerprints per RS485 interface, in total 16 per module.

- Attention: The connected devices (e.g. fingerprint) must be serially wired.

Comments

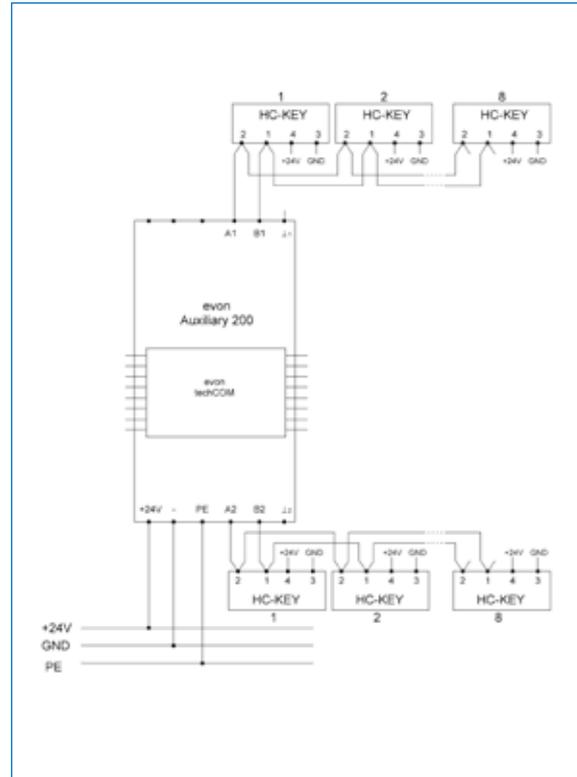
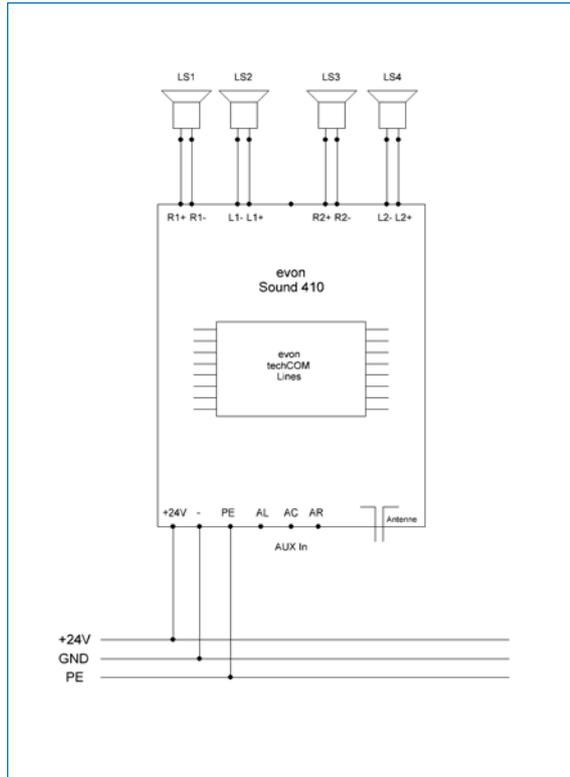
- Technology modules (techCOM) can only be installed a maximum of 1m from the controller (controllers and technology modules must be installed in the same switching cabinet).

evon Smart Home
Sound module TS410
Order no.: HC-TS410-00

evon Smart Home
Auxiliary modul TA200
Order no.: HC-TA200-00

Supply		
Supply voltage	24 V DC +/- 10%	24V DC +/- 10%
Overvoltage category	2	2
Switch-on duration	100 %	100%
Ambient conditions		
Operating conditions	-15°C ... +55°C	-15°C ... +55°C
Storage conditions	-20°C ... +60°C	-25°C ... +55°C
Relative air humidity (operation)		5..90%rH (Non-dewing)
Level of contamination	2	2
Terminals		
Terminal capacity	0,25 mm ² ... 4 mm ²	0.25mm ² ... 4 mm ²
Type	Screw terminal	Screw terminal
Stripping length	7 mm ... 8 mm	7mm ... 8mm
Protection class (EN60529)	IP 30	IP 20
Tests/approvals		
	CE	CE
Inputs		
Aerial for FM radio	F-socket on device (75 Ohm)	
AUX input	On terminals (Stereo 11 kOhm)	
Outputs		
	Class D amplifier	
Types	2 x stereo or 4 x mono	
Protective circuit	Excess temperature and short-circuiting protection	
Output power per channel (at 24V DC)		
4 Ohm:	42W peak (THD+N 10%@1kHz)	
8 Ohm:	25W peak (THD+N 10%@1kHz)	
4 Ohm:	33W peak = 23W RMS (THD+N 1%@1kHz)	
8 Ohm:	20W peak = 14W RMS (THD+N 1%@1kHz)	
4 Ohm:	<5W (THD+N <0.1%@1kHz)	
8 Ohm:	<3W (THD+N <0.1%@1kHz)	
THD+N:	Total Harmonic Distortion + Noise	
Interface		
Types	RS485	
Number	2	
Galvanic isolation between interface and supply	Yes	
Isolation voltage	2,2kVac	
Interface voltage	5V	
Baud rate	300..250k	
Support	7.8 Data bits 1..2 Stop bits odd, even, mark, space and no parity	
Internal bus termination	Yes	
Protective circuit	PTC in series, overvoltage protection	
Maximum cable length	Dependent on cable types and laying, see RS485 specification	

Wiring example



Important before commissioning

- Supply each module with voltage. Verify whether the GND supply corresponds to earth zero potential.
- Only use a 4 Ohm or 8 Ohm loudspeaker. Only parallel switching of max. two 8 Ohm loudspeakers is possible – otherwise the power amplifier can be damaged.
- The aerial cable (75 Ohm) should be conducted from the switching cabinet for better reception.

Commissioning

- Start commissioning the system with the power off.
- Technology modules are installed on the left on the controller.
- Mount the module on the DIN top-hat rail, it snaps into place with a click.
- Please verify whether the GND supply corresponds to your 24V earth zero potential power supply.
- The module is automatically detected and can be controlled/configured via the usual user interface.

Comments

- Large cross-sections need to be used accordingly for long cable pathways (loudspeakers).



System modules

**Sys 1100, Sys 1200, Sys 100W, Sys 2100,
Sys 2200, Sys 2300, Sys 2400**



evon Smart Home

System module Sys 1100

Order no.: HC-S1100-00



 **22,5 mm = 1,3 TE**
22,5 x 85 x 70 mm (w x h x d)

evon Smart Home

System module Sys 1200

Order no.: HC-S1200-00



 **22,5 mm = 1,3 TE**
22,5 x 85 x 70 mm (w x h x d)

evon Smart Home

System module Sys 100W

Order no.: HC-S100W-00



 **90 mm = 5,2 TE**
90 x 85 x 70 mm (w x h x d)

evon Smart Home
smartCOM line final
module.

→ Per line 1 pc necessary

evon Smart Home bus
converter module for smart-
COM line with RJ45 Cat
cable connection.

→ max. total line length
300 m

→ max. line length between
2 modules 100 m

evon Smart Home switching
power supply 230 V AC/24 V
DC 100 W 4.2 A.

→ max. output 100 W

evon Smart Home
**System module
 Sys 2200**
 Order no.:
 HC-S2200-00



evon Smart Home
**System module
 Sys 2300**
 Order no.:
 HC-S2300-00



evon Smart Home
**System module
 Sys 2400**
 Order no.:
 HC-S2400-00



 **22,5 mm = 1,3 TE**
 22,5 x 85 x 70 mm

 **22,5 mm = 1,3 TE**
 22,5 x 85 x 70 mm

evon Smart Home techCOM
 Connecting module.

→ Connection to the
 controller

evon Smart Home techCOM
 Connecting module.

→ Connection to the module

evon Smart Home techCOM
 Connector cable.

→ Length 1 m

Ambient conditions

Operating conditions -15..+55°C, 5..90 % rH, Non-condensing

Storage conditions -25..+70°C, 5..90 % rH, Non-condensing

Level of contamination 2

Protection class (EN 60529) IP 50

Tests/approvals CE

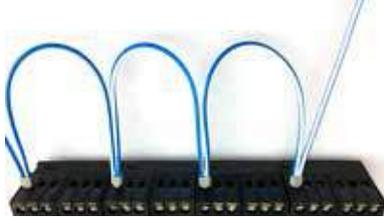
Comments

→ Technology modules (techCOM) can only be installed a maximum of 1.5 m away from the controller.

evon Smart Home

Wire strap DC-

Order no.: HC-CABM-00



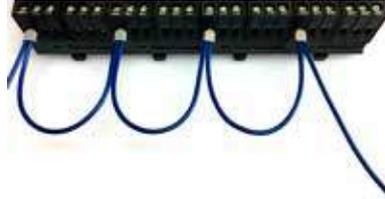
Wire strap for fast wiring of the evon Smart Home modules.

- Total length: 16 m (100 connecting points)
- Cross section: 0,75 mm²
- Color: dark blue/white

evon Smart Home

Wire strap DC+

Order no.: HC-CABP-00



Wire strap for fast wiring of the evon Smart Home modules.

- Total length: 19 m (100 connecting points)
- Cross section: 0,75 mm²
- Color: dark blue

evon Smart Home

WiFi Extension

Order no.: HC-WIFIAP-00



evon Smart Home WiFi Starter kit for the fast and easy connection to the evon Smart Home controller without network infrastructure.

Attention: Only for startup! Limited range, no encryption.

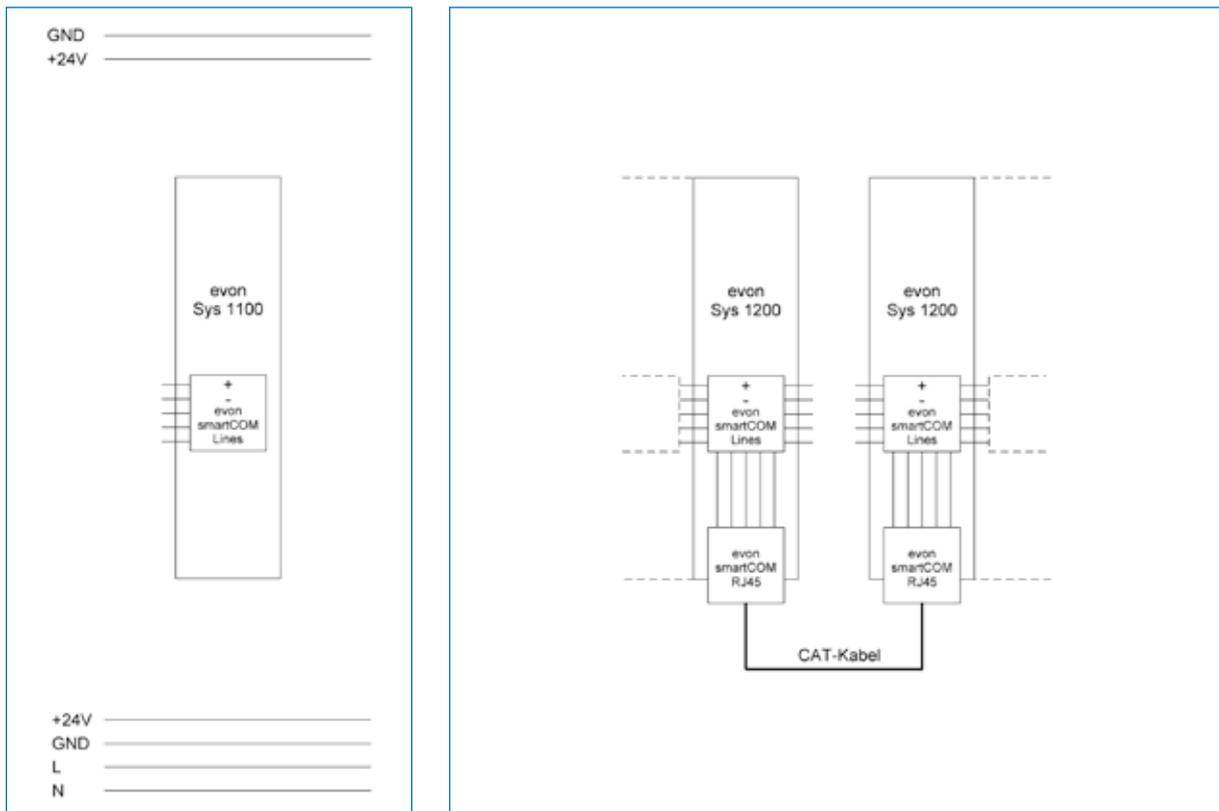
- WiFi Access Point
- Automated IP address distribution

System module Sys1100 / Sys1200

Order no.: HC-S1100-00 / HC-S1200-00

Ambient conditions	
Operating conditions	-15..+55°C, 5..90 % rH, Non-condensing
Storage conditions	-25..+70°C, 5..90 % rH, Non-condensing
Level of contamination	2
Protection class (EN 60529)	IP 50
Tests/approvals	
	CE

Wiring example



Comments

- S1100: Module must be set at the end of every smartCOM line (termination). Maximum overall length smartCOM Line 300m. Maximum distance between 2 participants 100m.
- S1200: Standard CAT cables can be used for forwarding. WARNING: smartCOM line cannot be conducted via home network (switch, router). Direct connection of S1200 to S1200. Maximum total length smartCOM Line 300m. Maximum distance between 2 participants 100m. Use: Connection of modules in different switching cabinet series or distributors.

System module Sys 100W

Order no.: HC-S100W-00

Supply	
Input voltage	100..240 V AC
Consumer unit	Max. 2.2 A
Input frequency	47..63 Hz
Measurement isolation voltage	3000 V AC (4242 V DC)
Internal fuse	T3, 15 A 250 V AC
Output	
Voltage	24..28 V DC
Minimum permissible load	0%
Temperature coefficient	+/- 0.03%/°C
Electricity	max. 4,2 A
Line balancing	+/- 1%
Load balancing	+/- 1%
Degree of effectiveness	89%
Excess output protection	110-150%
Oversvoltage protection	min. 30 V / max. 33 V
Ambient conditions	
Operating conditions	-25..+71°C
Storage conditions	-25..+85°C
Terminals	
Type	Screws
Terminal capacity	Max. 2 x 1,5 mm ²
Tightening torque	0,6 Nm
Tests/approvals	
	cULus, EAC

Grid side connection

- The supply network is connected via terminals L and N (see wiring example) and it must be executed according to IEC 60364 and EN 50178. A protective device (circuit breaker or power switch) and isolating device to release the power supply must be provided for. A ground fault circuit interrupter may not be used as the sole protective measure for indirect touching, this applies to the entire grid protected by the ground fault circuit interrupter. Fuse protection to be installed upstream on the grid side (IEC 898):
- Characteristic C circuit breakers, from 10 A
 - Characteristic B circuit breakers, from 16 A
- Further, country-specific specifications may need to be heeded for installation of the device.

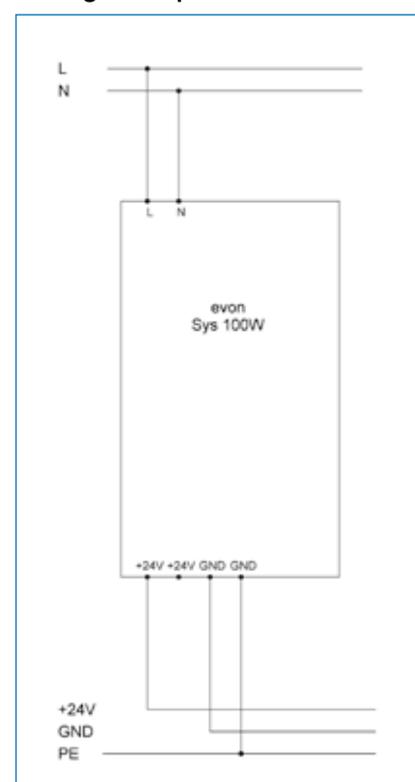
Connection on the output side

- Connection of the output voltage is via the terminals + and – of the power supply (see wiring diagram). Please ensure that the output cables are relevantly dimensioned to the maximum output current effective value or are additionally fused.

Note

- When used in conjunction with protection class I devices (with protective conductor) a connection must be made between „-“ and „PE“ with at least 1.5 mm².

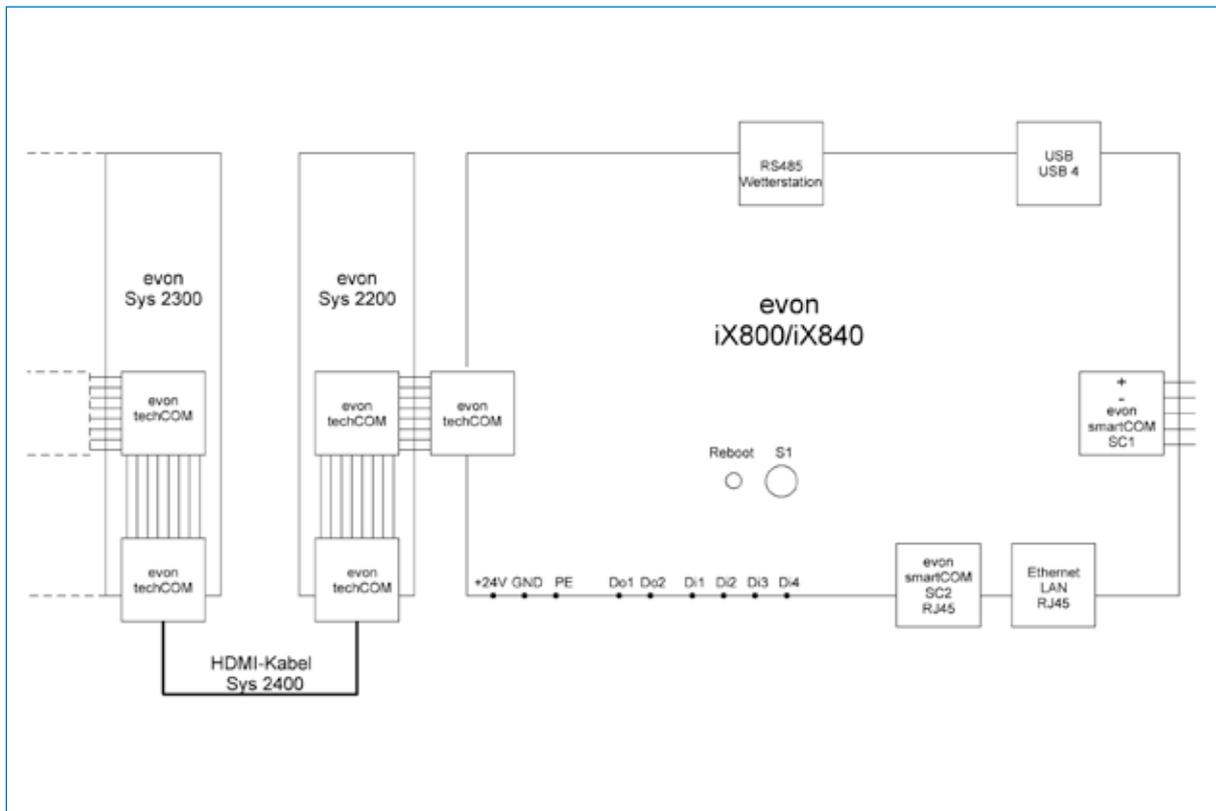
Wiring example



System module Sys 2200 / Sys 2300 / Sys 2400

HC-S2200-00 / HC-S2300-00 / HC-S2400-00

Wiring example Sys 2200, 2300, 2400



Sys 2200, 2300, 2400

Commissioning

- Start commissioning the system with the power off.
- The modules can only ever be constructed from right to left.
- Place the enclosed 8-pole techCOM line connector into the left plug jack of the iX800/iX840.
- Mount the module on the DIN top-hat rail, it snaps into place with a click.
- Push the Sys 2200 module onto the top-hat rail on the left plug jack of the iX800/iX840.
- Push the Sys 2300 module onto the top-hat rail on the right plug jack of the technology module.
- Please verify whether the GND supply of the 24V power supply corresponds to earth zero potential.

Comments

- Maximum overall length techCOM line 1 m.
- The techCOM line can be extended a maximum of once using the Sys 2400.
- Use: Connection of techCOM modules in different switching cabinet series.
- techCOM can only be operated in line topology.



Expansions
Cameras, intercom, weather station, u::Lux



evon Smart Home

Bullet camera

Order no.: [HC-CAM12-01](#)



The evon Smart Home bullet camera – preferred use for outdoor installation.

- 2 MP Full HD (1920 x 1080)
- Infrared night vision mode (up to 30m)
- Automatic switchover to night mode
- POE
- Expanded functionalities via the camera interface (automatic recording, motion sensor, ...)
- WARNING: POE injector or POE switch necessary
- Other configurations, focal length and junction boxes on request

evon Smart Home

Dome camera

Order no.: [HC-DCAM20-00](#)



The evon Smart Home dome camera – preferred use for ceiling installation indoors and covered outdoor areas.

- 2 MP Full HD (1920 x 1080)
- Infrared night vision mode (up to 30m)
- Automatic switchover to night mode
- POE
- Expanded functionalities via the camera interface (automatic recording, motion sensor, ...)
- WARNING: POE injector or POE switch necessary
- Other configurations, focal length and junction boxes on request

evon Smart Home

Intercom

Order no.: **HC-SIPB10-00**



evon Smart Home intercom.

- Camera resolution 6 MP

- Push messages

- Live camera image

- POE

- IP65

- Accessories:
 - **HC-SIPZ01-00:** Surface-mounted housing for intercom HC-SiPB10-00. 126 x 138 x 31 mm

 - **HC-SIPZ02-00:** Surface-mounted frame for intercom HC-SiPB10-00. 131 x 143 x 18 mm

 - **HC-SIPZ03-00:** Surface-mounted housing for intercom HC-SiPB10-00. 123 x 138 x 52 mm

 - **HC-SIPZ04-00:** Surface-mounted frame for intercom HC-SiPB10-00. 131 x 143 x 18 mm

- Colors: silver by default (on request white and dark grey)

- WARNING: POE injector or POE switch necessary

evon Smart Home

Weather station

Order no.: **HC-WSLRW-00**



The evon Smart Home weather station allows quick reactions to weather events such as storms, rain or changes in temperature. In addition, intelligent shade controls can be executed by measurement of sunlight intensity from three sky directions.

- Measurement of external temperature

- Rain detection

- Wind speed measurement

- Sunlight intensity S/W/E

- Twilight detection

evon Smart Home

u::Lux switch

Order no.: HC-ULUX-00



The evon Smart Home u::Lux switch combines a quadruple button with a high resolution color display.

evon Smart Home supports all functions of the switch and integrates it fully and simply.

- 1x KOMOS data ring for PoE network connection
- 4x operation buttons
- 1x display screen for evon Smart Home room app

evon Smart Home

u::Lux extension

Order no.: HC-ULUXEXT1/2/3/4-00



Extension of the evon Smart Home u::Lux switch for measurement of temperature, air humidity, CO₂ or Evaluation of motion sensor (function dependent on type).

- Temperature measurement (HC-ULUXEXT1-00)
- Temp. humidity measurement (HC-ULUXEXT2-00)
- Temp. humidity measurement and BWM (HC-ULUXEXT3-00)
- CO₂ measurement (HC-ULUXEXT4-00)

evon Smart Home

Bullet camera

Order no.: HC-CAM12-00

evon Smart Home

Dome camera

Order no.: HC-DCAM20-00

Supply		
Supply voltage	12 V DC ± 10 % PoE (802.3af)	12 Vdc +/-10 % PoE (802.3af)
Power input	max. 5 W (max. 7 W with IR)	max. 5 W (max. 7W with IR)
Camera		
Image sensor	1/2,8" progressive scan CMOS	1/2,8" progressive scan CMOS
Minimum brightness	0.01 lux @F1.2, AGC ON, 0 lux with IR	0.01 lux @1.2, AGC ON, 0 lux with IR
Lenses	4 mm @F2.0, Angle: 90°	2.8 mm @F2.0, Angle: 106°
Day/night operation	Automatic switchover with IR filter	Automatic switchover with IR filter
Noise suppression	Digital DNR	Digital DNR
Video		
Compression	H.264+ / H.264 / MJPEG	H.264+ / H.264 / MJPEG
Bit rate	32 Kbps ~ 16 Mbps	32 Kbps ~ 16 Mbps
Dual stream	Yes	Yes
Max. Resolution	1920 x 1080	1920 x 1080
BLC (Black Light Compensation)	Yes	Yes
Extended functions		
Memory	NAS (configuration via camera software)	NAS (configuration via camera software)
Alarm	Motion sensors, sabotage alarm (configuration via camera software)	Motion sensors, sabotage alarm (configuration via camera software)
Supported protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour (SIP optional)	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
Compatibility	ONVIF, PSIA, CGI	ONVIF, PSIA, CGI
Ambient conditions		
Operating conditions	-30 °C ... +60 °C, max. 95 % rH, Non-condensing	-30°C ... +60°C, max. 95% rH, Non-condensing
Protection class (EN60529)	IP66	IP66
Tests/approvals		
	CE	CE
General		
Dimensions	70 x 154,2 x 60,5 mm	Ø 111 x 82 mm
Weight	500 g	500 g
Installation		
	AP	AP

Commissioning bullet and dome camera

- The camera is pre-configured for optimum operation with evon Smart Home. Settings made via the camera software or the web interface can restrict the functionality with evon Smart Home.
- After installation, the camera must be supplied with POE (Power over Ethernet). Either using POE injector or POE connection on the available switch (802.3af)
- After voltage supply (POE) the camera requires several minutes before it is completely ready for operation.
- The camera is configured on an automatic IP address reference (DHCP). It is therefore found automatically in evon Smart Home. Changes to the IP settings must be made via the web interface of the camera.

evon Smart Home

Intercom

Order no.: HC-SIPB10-00

Supply	
Supply voltage	48V, with customary PoE ethernet switch (PoE class 3)
Power input	< 4,5 W
Camera	
Image sensor	1/1,8" CMOS (6MP). Either day or night possible (consider in order). Resolution: 6MP, 3072 x 2048 pixels
Minimum light intensity	Day sensor: 0,1 Lux Night sensor: 0,02 Lux
Lenses	Fisheye lens B016 (focal width 1,6 mm, f/2.0, 180° x 180°)
Day/night operation	Available with day or night lenses. Standard order: Day lenses.
Noise suppression	
Video	
Compression	H.264 / MJPEG
Bit rate	8 images/sec. (6MP)
Dual stream	Ja
Image	
Max. resolution	3072 x 2048
Extended functions	
Memory	SD card or network memory
Alarm	
Supported protocols	SIP, TCP/IP, HTTP, HTTPS, FTP
Compatibility	
Ambient conditions	
Operating conditions	-30°C ... +50°C
Protection class (EN60529)	IP65 and IK09
Tests/approvals	CE
General	
Dimensions	99 mm x 99 mm
Weight	
Installation	AP or UP with relevant accessories

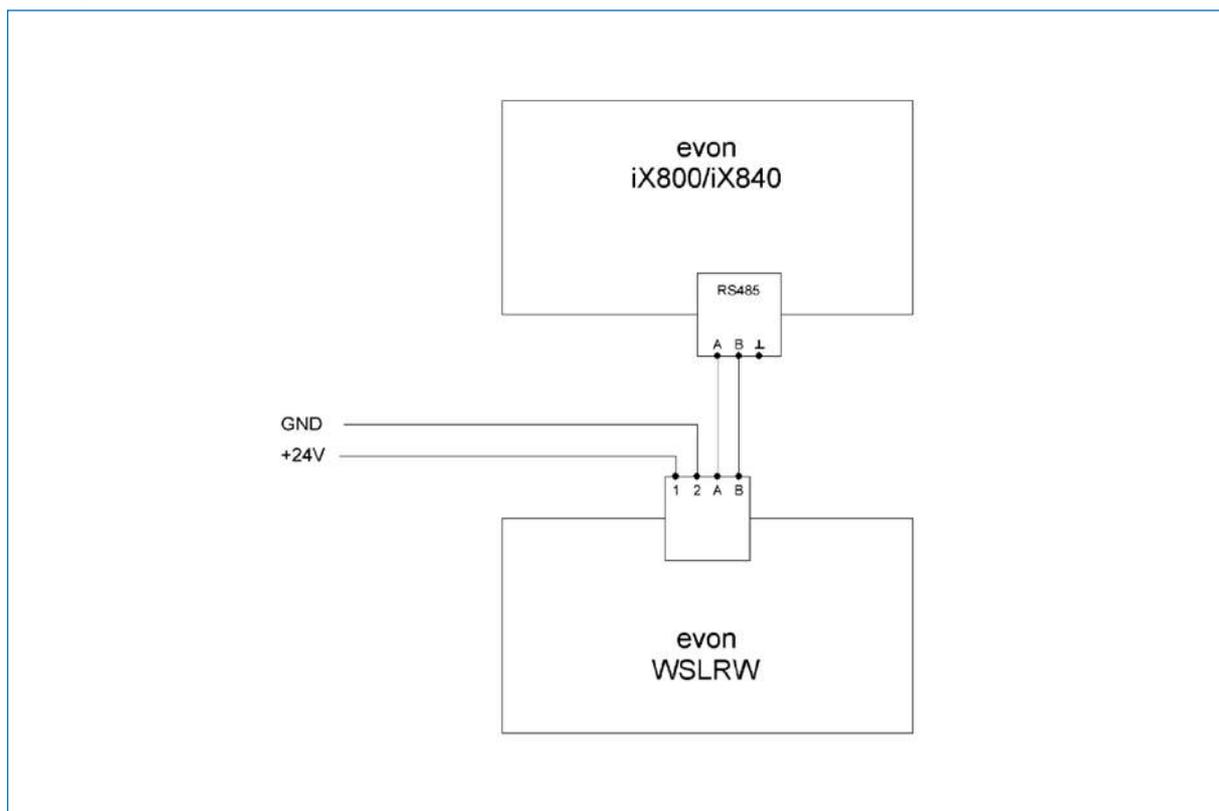
evon Smart Home

Weather station

Order no.: HC-WSLRW-00

Housing	Plastic
Color	White / translucent
Installation	Surface installation
Protection class	IP 44
Dimensions	approx. 96 x 77 x 118 (W x H x D mm)
Weight	approx. 160 g
Ambient temperature	operation -30...+50°C, storage -30...+70°C
Operating voltage	24 V DC
Electricity	max. 120 mA, residual ripple 10%
Data output	RS485
Heating rain sensor	approx. 1.2 W
Temperature measuring range	-40...+80°C
Wind measuring range	0...125 km/h
Brightness measuring range (south, east, west)	0 ... 99.000 Lux
Dawn measuring range	0 ... 999 Lux

Wiring example



Comments

→ The evon Smart Home weather station may only be operated as a fixed location installation, i.e. only in the installed state and when all installation and commissioning works are complete. The supply line to the weather station may be a maximum of 100 m long. Connection is with the aid of customary telephone cables (J-Y(ST) Y 2x2x0.8 or equivalent). An incorrect connection can lead to destruction of the weather station and the evon Smart Home controller.

evon Smart Home
u::Lux switch
Order no.: HC-ULUX-00

evon Smart Home
u::Lux extension
Order no.: HC-ULUXEXT1/2/3/4-00

Supply		
Supply voltage	48 V, with customary PoE ethernet switch (PoE class 1)	via u::LUX switch
Power input	min 0.8 W, max. 1.7 W, type 1.3 W (display switched on)	ULUXEXT1, ULUXEXT2 max. 12 mW ULUXEXT3 max. 18 mW ULUXEXT4 max. 350 mW
LSA connection	1 Ethernet 8 pol LSA, 1 AddOn (extension) 4 pol LSA	4 pole connection cable
RJ45 connection	2 Ethernet RJ45 jacks, 1 extension jack	
Ambient conditions		
Operating conditions	-10°C ... +40 °C	-10°C ... +40°C
Storage conditions	-30°C ... +80 °C	-20°C ... +60°C
Protection class (EN60529)	IP20	IP20
Protection class	3	3
Measuring range		
Temperature	-55°C to +125°C, accuracy at 25°C +/- 0,5°, in the range from -10°C to +85°C +/- 1°C	
Air humidity	0% to 100% (non-condensing), accuracy +/- 2%	
CO2	400ppm to 4000ppm (0.040 Vol.-% to 0.4 Vol.-%)	
Motion detection	Distance (to the sensor) 5m, horizontal angle 94°, vertical angle 82°.	
Tests/approvals		
	CE	CE
Installation		
Installation depth	Suitable for 50 mm UP box	
Installation dimensions	Suitable for 56 mm x 56 mm aperture programs 55mm x 55mm x 20mm	



Expansions
Fingerprint access system



evon Smart Home

Access system

Order no.: HC-KEYAP-00



evon Smart Home fingerprint access system to surface installation.
Additional expansion module HCTA200-00 necessary.

- 800 fingerprints can be stored
- Access reporting (last 20 events)
- Complete operation and parametering via the evon Smart Home user interface
- Complete scene integration (user-dependent configuration)
- Reader also available with RFID functionality

evon Smart Home

Access system

Order no.: HC-KEYUPE-00



evon Smart Home fingerprint access system flush mounting, for integration in various switch programs.
Additional expansion module HCTA200-00 necessary.

- 800 fingerprints can be stored
- Access reporting (last 20 events)
- Complete operation and parametering via the evon Smart Home user interface
- Complete scene integration (user-dependent configuration)
- Reader also available with RFID functionality

evon Smart Home

Access system

Order no.: HC-KEYUPI-00



evon Smart Home fingerprint access system flush mounting, for integration in various Intercom systems.

Additional expansion module HC-TA200-00 necessary.

- 800 fingerprints can be stored
- Access reporting (last 20 events)
- Complete operation and parametering via the evon Smart Home user interface
- Complete scene integration (user-dependent configuration)
- Reader also available with RFID functionality

evon Smart Home

Access system

Order no.: HC-KEYIN-00



evon Smart Home fingerprint access system Integra for integration in doors, intercoms or letterboxes.

Additional expansion module HC-TA200-00 necessary.

- 800 fingerprints can be stored
- Recommended mounting height: 155 cm
- Access reporting (last 20 events)
- Complete operation and parametering via the evon Smart Home user interface
- Complete scene integration (user-dependent configuration)
- Reader also available with RFID functionality (HC-KEYINR-00)

evon Smart Home

KEYAP-00

Order no.:
HC-KEYAP-00

evon Smart Home

KEYUPE-00/ KEYUPI-00

Order no.:
HC-KEYUPE-00
HC-KEYUPI-00

evon Smart Home

HC-KEYIN-00

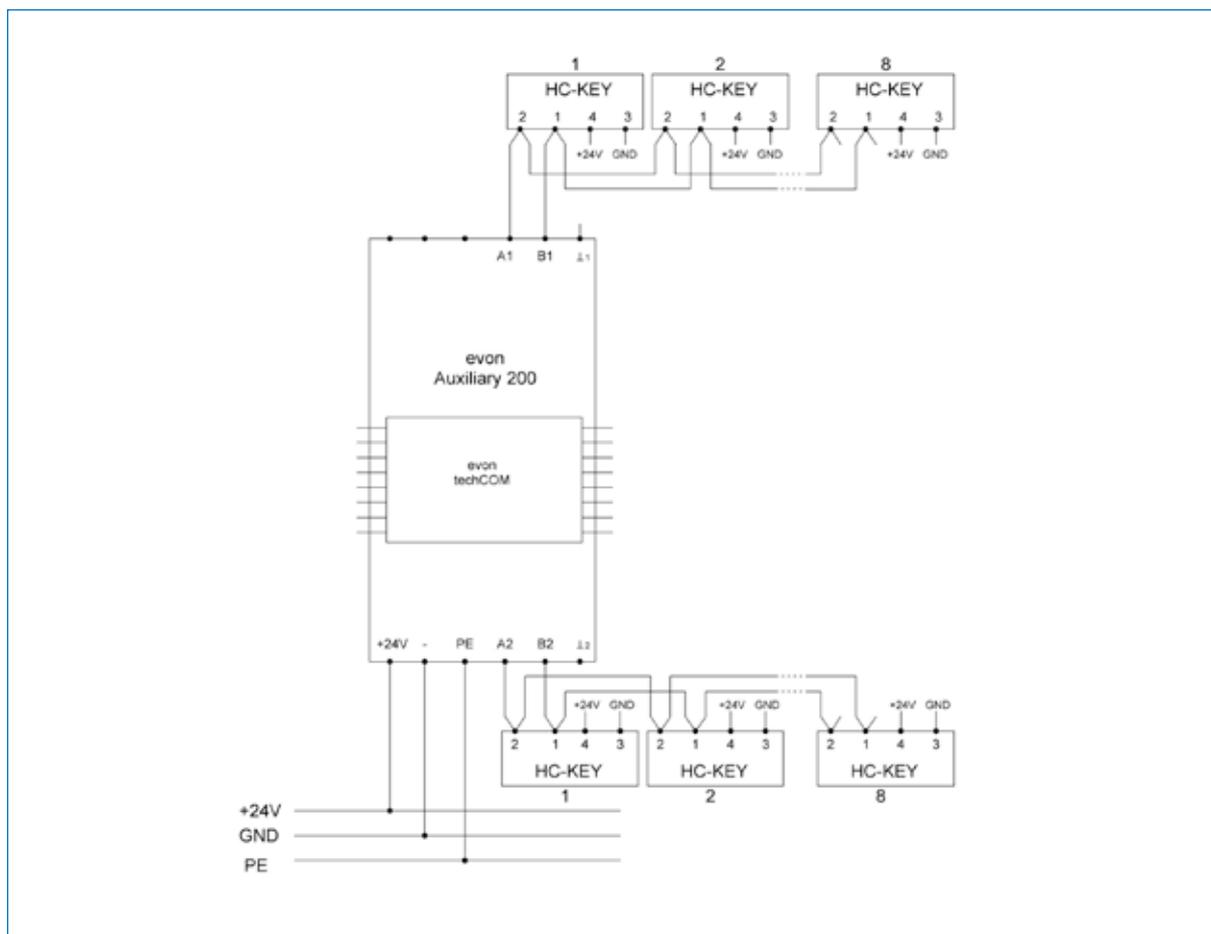
Order no.:
HC-HC-KEYIN-00

Electrical characteristics

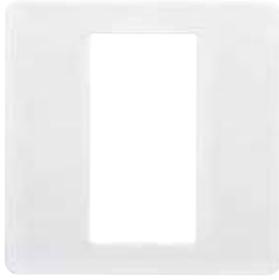
AC supply	8-24 V	8-24 V	8-24 V
DC supply	8-24 V	8-24 V	8-24 V
Power input ¹ idle state	ca. 1 W	ca. 1 W	ca. 1 W
Power input ¹ matching	ca. 1 W	ca. 1 W	ca. 1 W
Temperature range warehouse	-25 bis +70 °C	-25 bis +70 °C	-25 bis +70 °C
Temperature range operation	-25 bis +70 °C	-25 bis +70 °C	-25 bis +70 °C
Protection class	IP 44	IP33/ IP43 dependent on switch program used	IP 54
Detection period	1-4 s	1-4 s	1-4 s
Lifespan	ca. 10 Mio. Finger scans	ca. 10 Mio. Finger scans	ca. 10 Mio. Finger scans
max. cable length RS485 bus (TERMINAL 1,2) ²	100 m	100 m	100 m
max. length of supply cable (TERMINAL 3,4) when used in industrial environment	30 m	30 m	30 m
Dimensions W x H x D	45 x 81,6 x 60,3 mm	50,4 x 50,4 x 30,1 mm	45,5 x 91,5 x 18,2 mm
Installation height	135 cm	135 cm	155 cm

¹ Power input varies over entire supply voltage range $\pm 10\%$

² When recommended cables are used



Wiring example KEYAP-00, KEYUPE-00, KEYUPI-00



evon Smart Home

KEYZ01-00

Order no.:
HC-KEYZ01-00

Decorative panel pure white RAL9010 (plastic) for all HC-KEYUP models.



evon Smart Home

KEYZ02-00

Order no.:
HC-KEYZ02-00

Decorative panel aluminum-colored RAL9006 (plastic) for all HC-KEYUP models.



evon Smart Home

KEYZ03-00

Order no.:
HC-KEYZ03-00

Decorative panel anthracite-colored (plastic) for all HC-KEYUP models.



evon Smart Home

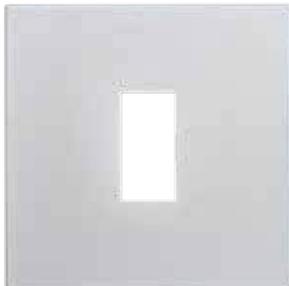
KEYZ04-00

Order no.:
HC-KEYZ04-00

Decorative panel stainless steel for all HC-KEYUP models.

WARNING: Not compatible with RFID models.

WxHxD =
85 x 85 x 7,2 mm



evon Smart Home

KEYZ05-00

Order no.:
HC-KEYZ05-00

Intercom installation module silver metallic, suitable for HC-SIPB10-00 intercom.



evon Smart Home

KEYZ06-00

Order no.:
HC-KEYZ06-00

Weather protection for all HC-KEYAP models.

evon Smart Home

KEYZ07-00

Order no.: HC-KEYZ07-00

RFID keyring. Compatible with all HC-KEY models with RFID function.

evon Smart Home

KEYZ08-00

Order no.: HC-KEYZ08-00

RFID access card. Compatible with all HCKEY models with RFID function.

Commissioning information

Important before commissioning

- Supply each module with voltage.
- Verify whether the GND supply corresponds to earth zero potential.
- Larger resistive loads and capacitive and inductive loads on the module output channel must be switched by relays.
- The input channel must be only switched with 24 V direct current voltage.
- Light 1644: Heed necessary minimum cross-sections.

Commissioning

- Start commissioning the system with the power off.
- Start installation work with a controller (e.g. iX800) or a converter module S1200 on the left side in the distribution box.
- The smartCOM modules can only ever be constructed from left to right.
- Place the enclosed 5-pole smartCOM line connector into the left plug jack of the module.
- Mount the module on the DIN top-hat rail, it snaps into place with a click.
- Push the module on the top-hat rail onto the left module in the system. Ensure that the detached pins of the plug connection ratchet into the jack of the secondary module.
- Please verify whether the GND supply of your 24 power supply corresponds to earth zero potential.
- The ON LED lights up green after supplying of voltage.
- The smartCOM LED flashes red.
- After the controller has recognized and addressed the modules, the red smartCOM LED goes out and allocation and configuration can be started via the visualization.



Cooperation partners



evon GmbH // Wollsdorf 154 // 8181 St. Ruprecht an der Raab
Tel. +43 (0) 3178 21800 // Fax.: +43 (0) 3178 21800-110
office@evon-smarthome.com

www.evon-smarthome.com