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SOLUTIONS FOR BUILDING CONTROL

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PRODUCT GUIDE 2016/2017 | Intelligent controls for buildings



SOLUTIONS FOR BUILDING CONTROL

Product guide 2016/2017

# Intelligent controls for buildings

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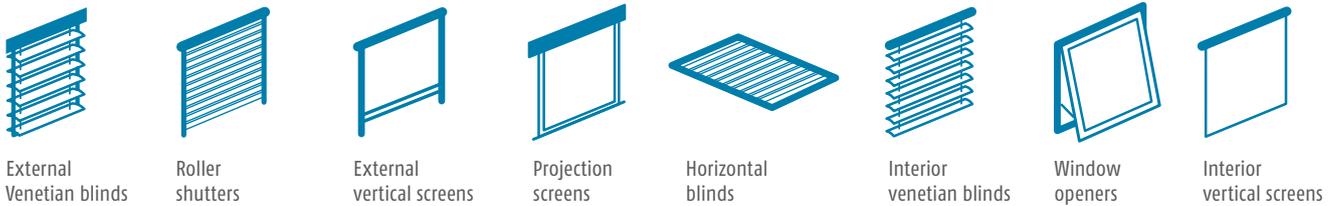
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# Solutions for buildings

## Somfy solutions for greater comfort and energy savings

Somfy solutions offer the capability to manage all types of buildings thanks to innovative products (motors, façade management systems and local controls).

Find a Somfy solution for any project – compatible with all sunshading and opening devices.



## Somfy solutions include



### 1. animeo intelligent building controls

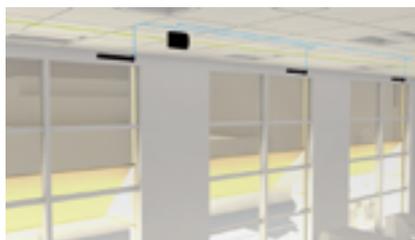
Façade management systems enable the control of all or part of solar shadings and windows via a PC or a dedicated control system. Motors and automation communicate with each other via a proprietary Somfy bus (Solo, IB+, IP) or market standards (KNX or LON).



animeo Motor Controller



animeo Building Controller



### 2. Motors

Whatever the end product (indoor or outdoor shading devices, roller shutters, projection screens, etc.), Somfy's motorization will always meet its exact specification.



Somfy tubular motor



Motor for exterior Venetian blinds



Somfy tubular motor



### 3. Local commands

Depending on the number of blinds and the layout of the room, there will always be a specific Somfy unit available with the required number of channels.

The various technologies (radio, wired, digital, etc.) offer a number of benefits that are tailored to each type of building (hospital, school, office, etc.).



Web Remote Control



Telis 1 Modulis RTS pure



Smoove IB

# Solutions for buildings

## General system architecture

Somfy products installed in a typical building equipped with exterior blinds.

### Motor Controller range

for any type of motors (high/low voltage), compatible with the Somfy proprietary bus (Solo, IB+) or open protocols (LON, KNX).



### Motors



**Sensor station** sends weather data information to the Building Controllers.



**The bus line** can be Somfy proprietary (Solo, IB+) or open (LON, KNX) and allows simple or bidirectional communication between the various products connected to the bus line.

**Building Controllers** compatible with Somfy proprietary bus (IB+) or open protocols (KNX, LON) to control small to large buildings.



### Local commands



**Programming and configuration interfaces**



# Solutions for buildings

## animeo: why and what for?



The sun's path

With animeo, solar protections constantly adapt to the exterior environment and occupants' needs inside the building.

Because throughout the day the azimuth and elevation of the sun as well as the occupants' activities are constantly changing, the animeo range of intelligent controls enables the movement of blinds to be controlled accordingly.

The main elements to be taken into account are:

### 1. The geolocation of the building



Sun and shadow impacting a city at different times of the day



Each building is unique, both in terms of its size, geographical location, environment or architecture. The sun's path, the shadow generated by surrounding buildings or the building shape itself have an impact on its energy needs. Taking these into consideration is essential in the choice of solar protection and control strategy.

### 2. User needs



Zone Timer in animeo IB+ and KNX software

Each building is designed for a specific purpose (office, school, hospital, etc.) with different occupancy periods: a school will be closed for certain weeks, a hospital will always be occupied or blind management in an office which is not occupied during the week-end.

It is therefore essential to enhance the building's energy performance and meet occupants' needs.

### 3. The definition of zones

A zone can be a:

Façade



Floor



Window



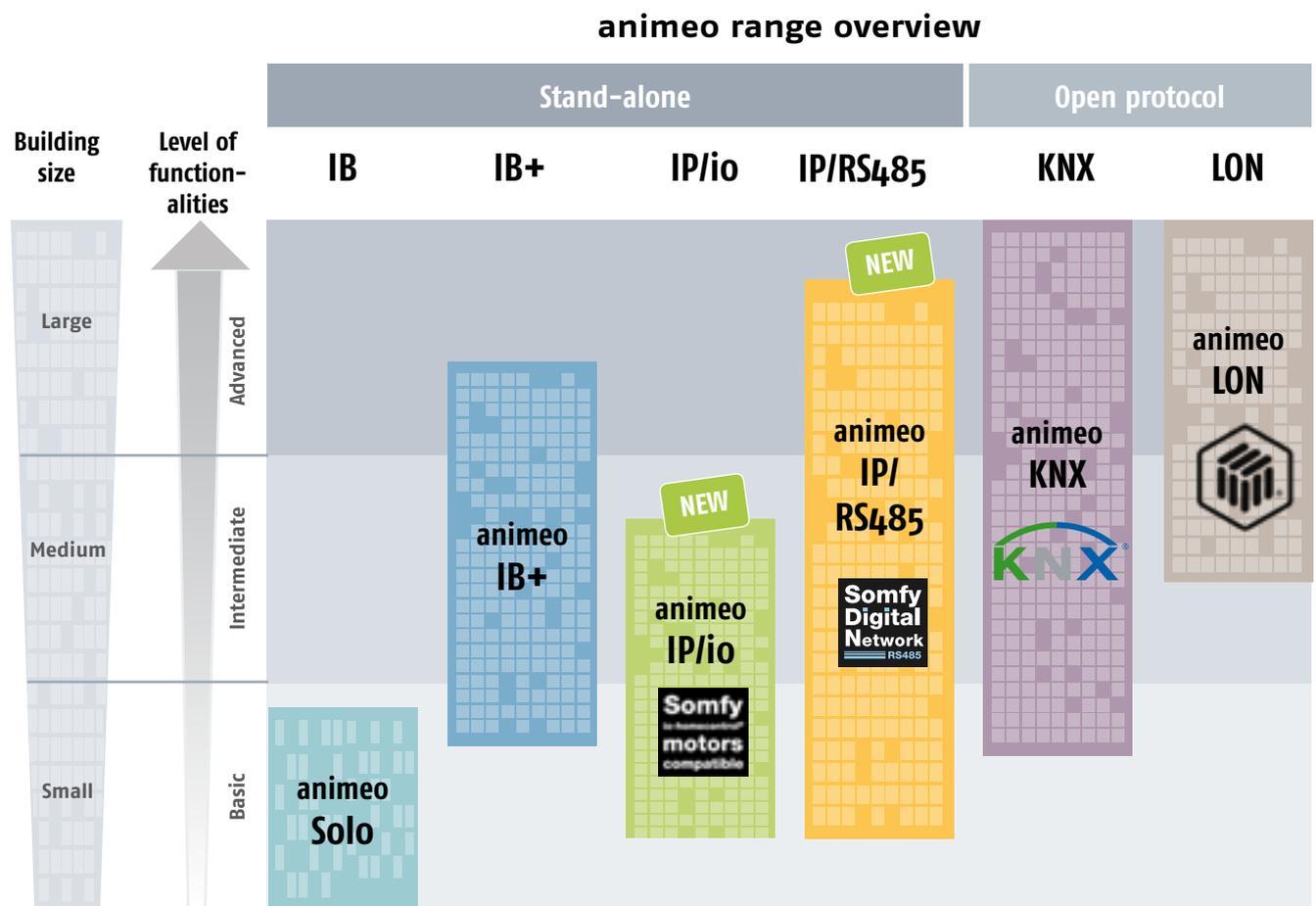
Within the same zone, all blinds behave the same way. Smaller zones enable more efficient and precise operation.

# Solutions for buildings

## animeo: a range of Somfy controls for buildings

animeo is a range of intelligent controls to manage blinds and shutters within buildings, designed to adapt to any façade configuration. By optimizing the management of sun, shade and air in buildings, animeo solutions actively enhance occupants' well-being while improving the building's energy performance.

## animeo: compatible with all sun shadings and opening devices



Number of motors	1 - 800	1 - 6400	0 - 200	0 - 2000	> 6400	> 6400
Number of zones	1 - 2	1 - 16	no limit	no limit	> 16	> 16

# Solutions for buildings

## Functions offered by the animeo range

Depending on the chosen animeo solution, many functions and algorithms are available to enhance visual comfort and energy savings.

Functions for visual comfort and savings with artificial lighting		How does it work?	animeo solution compatibility
Basic sun function	 <p>The blinds are automatically down in direct glare, and up if there is no sun. The function applies at a building, façade, zone or floor level.</p>	By programmable weekly timers or commands from sun sensors.	<b>Solo</b> <b>IB+</b> <b>IP</b> <b>KNX</b> <b>LON</b>
Sun tracking	 <p>To maximise the amount of light in the room, still avoiding direct glare (group of windows). Occupants' visual comfort is increased, since they can enjoy a view through as much of the window as possible.</p>	Algorithm embedded in Somfy animeo softwares: function enabled, depending on the building precise geolocalisation.	<b>IB+</b> <b>IP</b> <b>KNX</b> <b>LON</b>
Shadow management	 <p>Basic sun function or sun tracking functions managed at a window or group level. This function adjusts the movement of the sun protection according to the shadow projected on the window. The need for artificial lighting is reduced.</p>	The shadow function is based on a precise building model including surrounding buildings that could project shadow onto the façades.	<b>KNX</b> <b>LON</b>
At night	 <p>All blinds down to avoid discomfort linked to exterior lighting (direct spotlights lighting up the façades of some office buildings).</p>	By programmable timer.	<b>Solo</b> <b>IB+</b> <b>IP</b> <b>KNX</b> <b>LON</b>
Functions for increased building energy performance		How does it work?	animeo solution compatibility
Avoid overheating	 <p>To keep the heat outside, blinds are automatically down when the sun is detected. The function applies at building, façade, zone or floor level.</p>	Commands from sun sensors linked to indoor and outdoor temperature sensors.	<b>Solo</b> <b>IB+</b> <b>IP</b> <b>KNX</b> <b>LON</b>
Gain heat	 <p>Blinds are automatically up when the weather is sunny and when the inside temperature is lower than the outside temperature. Natural energy is used to heat the building.</p>		
Keep heat inside	 <p>Blinds are automatically down to avoid heat loss and reduce heating costs.</p>		

# Solutions for buildings

Maintenance functions: Protection of solar shading or people (building safety)		How does it work?	animeo solution compatibility
Window cleaner safety	 All blinds are up and occupants' local commands are disabled to ensure the cleaners' safety. The function applies at a zone or building level.	Central command, sent from the Building Controller or key switch.	<b>Solo IB+ IP KNX LON</b>
Links to fire alarm	All blinds go up in the event of fire (building level).	Central command sent from Building Controller.	
Protection of exterior blinds	 Wind, frost, ice or rain are detected at building or zone level. All blinds are up and occupants local commands are disabled to ensure blinds are protected.	Wind sensors, ice/rain/frost sensor detection: the message is sent by the Building Controller.	
Blind synergy	When interior blinds, exterior blinds or window openers work together, the level of priorities can be programmed.	With the Building Controller.	<b>IB+</b>
Maintenance functions: Advanced functions/links to BMS		How does it work?	animeo solution compatibility
Status of motor position	Motor feedback during movement and/or with reaching the up/down end-limits or the intermediate position.	Displayed on computer, using specific software (BMS).	<b>IP KNX LON</b>
Remote access	Remote access to blinds for facility managers.	Via the OPC server.	<b>IB+ KNX LON</b>
Functions to enhance the façade's appearance or indoor space		How does it work?	animeo solution compatibility
Blind alignment	  The blinds align to the exact position in order to provide perfect room/ façade aesthetics.	With RS485, io or Encoder motors and specific controls: displayed on computer using specific software (BMS).	<b>IB+ IP KNX LON</b>
Communication on façades	Showing messages, words on the façade.	Via the OPC server.	<b>KNX LON</b>
Functions to enhance user comfort		How does it work?	animeo solution compatibility
Manual override	Occupants can always control their own blinds using a wall switch, a remote control or a web remote in order to avoid feeling a loss of control due to the automated system.	With a RTS card plugged into the Motor Controller by local switch or web remote.	<b>IB+ IP KNX LON</b>

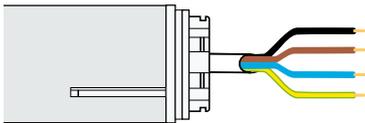
# Solutions for buildings

**animeo solutions are compatible with a large range of motors. The choice of controllers depends on the motor type.**

## • AC motors with typical applications

### Asynchronous motor (AC)

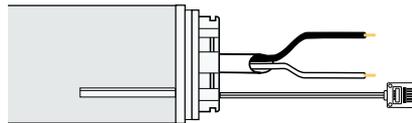
The cost-effective standard solution. Especially used outside and for applications requiring higher torque.



Electrical connection	L-up, L-down, N, PE
Torque of shading system	4-120 Nm
Energy by window motors	150-400 N
Diameter (not for window motors)	40-60 mm
Voltage	230 V AC
Current consumption	0.5-3.15 A
Installation comments	-
Applications	For roller shutters, screens, Venetian blinds, awnings, large slats, windows and Fabric Tension Systems (FTS).

### Asynchronous motor with integrated increment encoder (AC-E)

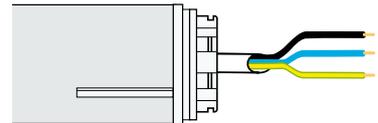
The increment encoder in the motor measures the exact position and sends a message to the controller. Used in all situations where precise positioning is required.



Electrical connection	L, N, PE + extra cable with RS485
Torque	5-35 Nm
Diameter	50 mm
Voltage	230 V AC
Current consumption	0.75-1.2 A
Installation comments	Specific control!
Applications	For roller shutters and screens in situations where exact positioning and consistent high precision is required. Applicable for blinds greater than three meters in height.

### Asynchronous motor with integrated radio receiver (AC radio)

Control of the motor is via a radio transmitter. There is no wiring between the motor and the point of operation. Motors can be connected in parallel. Mainly used in the residential and small purpose-buildings area.



Electrical connection	L, N, PE
Torque	6-120 Nm
Diameter	50-60 mm
Voltage	230 V AC
Current consumption	0.5- 3.15 A
Installation comments	Max. recommended radio distance: 20 m with up to 2 cement walls.
Applications	For roller shutters, screens and awnings.

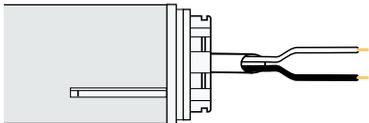
# Solutions for buildings

## • DC motors with typical applications

### DC Motor (DC)

For interior Venetian blinds: motors with smaller dimensions and lower torque.

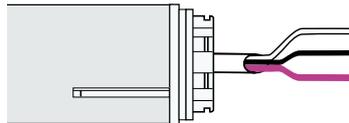
For windows: motors operated with safety low voltage.



Electrical connection	+, -
Torque of shading system	0.5–1.2 Nm
Energy with window motor	150–400 N
Diameter (not for window motors)	25–35 mm
Voltage	24 V DC
Current consumption; shading systems	0.3–1 A
Current consumption; window motors	0.3–2.5 A
Installation comments	Maximum recommended distance between motor and controller: 20 m (voltage loss).
Applications	For interior shading or for window motors.

### DC motor with increment encoder (DC-E)

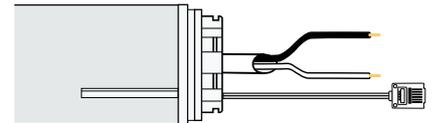
The increment encoder in the motor measures the exact position and sends the position to the controller. This is useful, especially in the DC area of interior Venetian blinds as the speed of the motor is strongly dependent on load and for this reason is not constant.



Electrical connection	+, -, cable for increment encoder
Torque	0.5–1.2 Nm
Diameter	25 mm
Voltage	24 V DC
Current consumption	0.3–1 A
Installation comments	Specific control! Max. distance between motor and controller: 20 m.
Applications	For interior Venetian blinds.

### DC motor with integrated increment encoder (DC-E)

The increment encoder in the motor measures the exact position and sends a message to the controller. Applied in all situations where precise positioning is required. Adjustable running speed guarantees high user comfort.



Electrical connection	+, - extra cable with RS485
Torque	2 Nm
Diameter	30 mm
Voltage	24 V DC
Current consumption	0.5–1.5 A
Installation comments	Specific control!
Applications	For interior screens in situations where exact positioning and consistent high precision is required. Applicable for blinds greater than three meters in height.



# Solutions for buildings

## Somfy solutions are compatible with most technologies on the market

Depending on the installation, various Somfy user interfaces are available:

### Wired technologies



#### WT

Wired Technology (Somfy standard proprietary wired control). An ideal solution for new buildings.



#### KNX

World standard for home and building control which is suitable for use in any application domain.



#### LON

Networking platform specifically created to address various functions within buildings (blind management, lighting, HVAC ...).

### Wireless technologies



#### Radio Technology Somfy®

With over 3 million installations throughout the world, RTS has become the standard for secure radio technology in the building industry. Installations can be upgraded as new controls are added.



#### io homecontrol

Highly secure wireless technology included in a wide range of home and building equipment, making it fully compatible, reliable and secure.



#### EnOcean

Energy harvesting self-powered wireless technology. The advantages are that EnOcean wireless technology is fully open and interoperable.

### Digital technologies



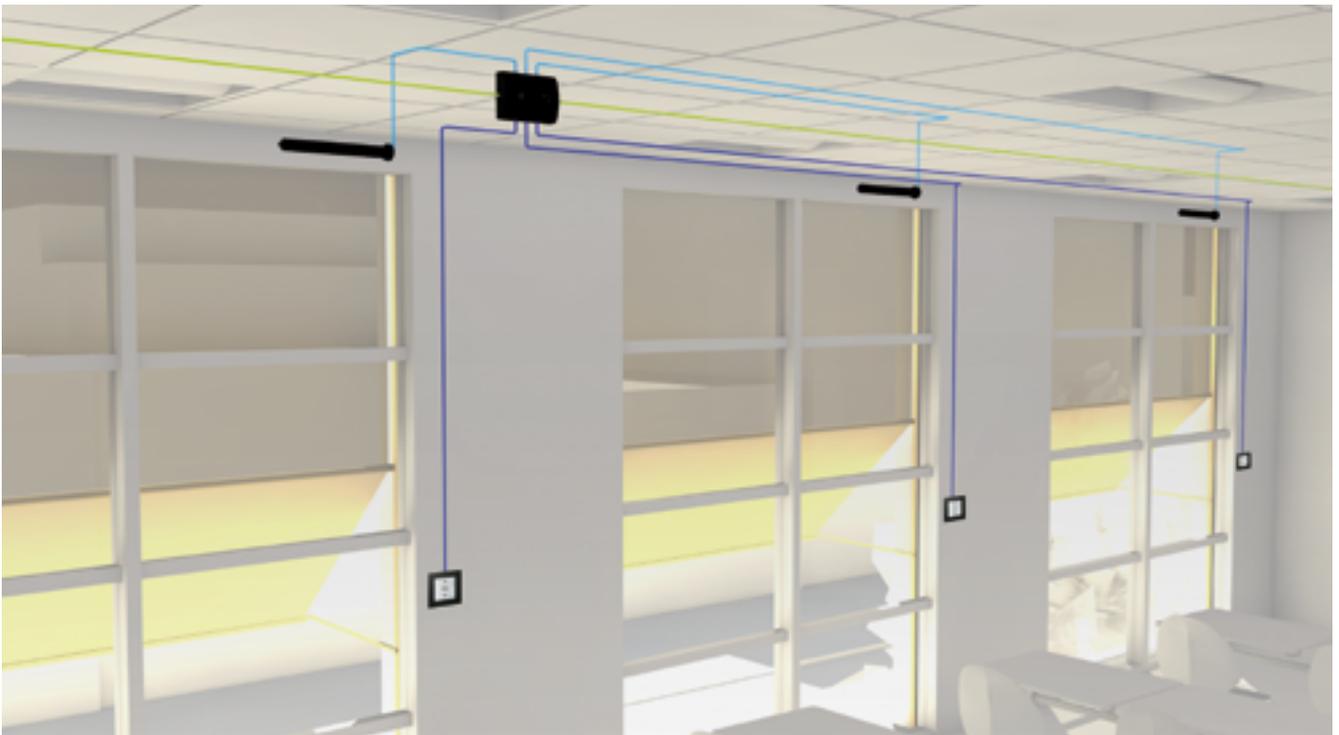
#### Somfy Digital Network

Wired protocol used by Somfy with its own digital protocol, also called "RS485". Digital controls provide the convenience of a multi-application and scalable system.

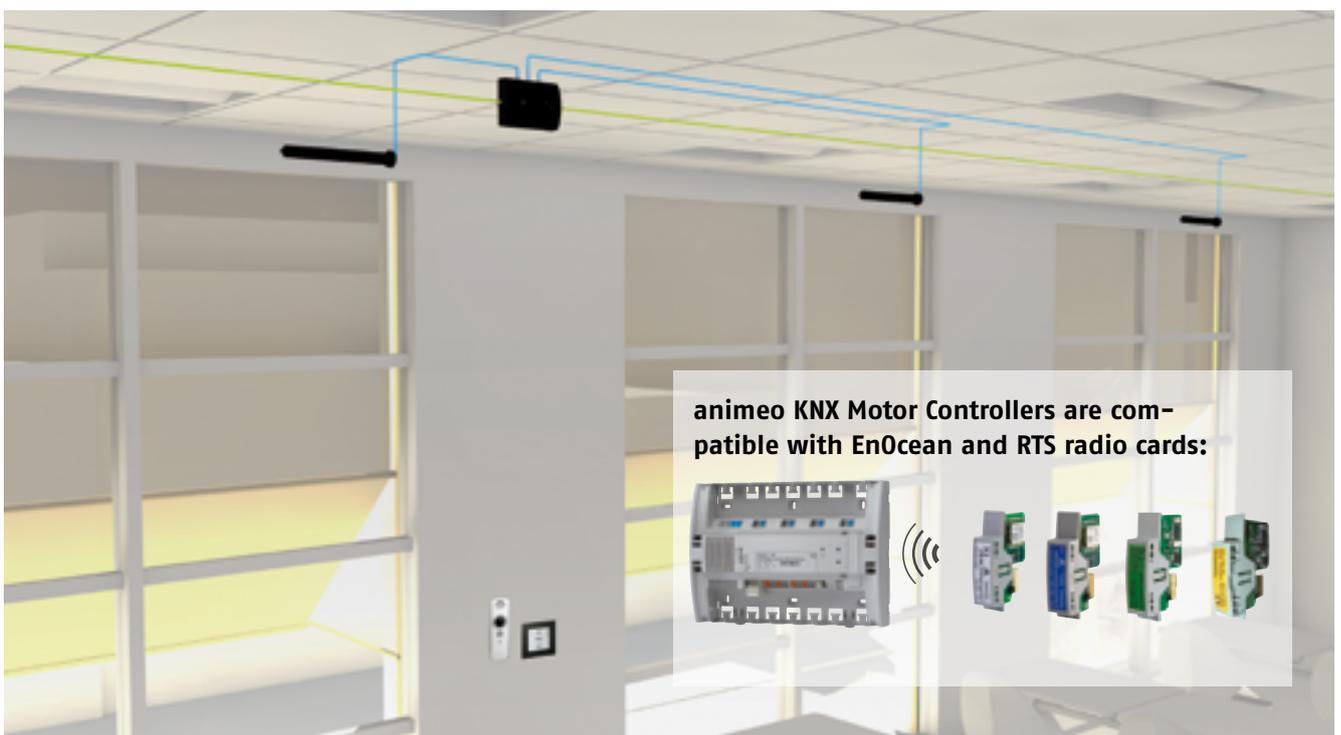
# Solutions for buildings

## Typical animeo IB+, KNX and LON installation

### AC Motor Controller and Smoove IB for local instruction

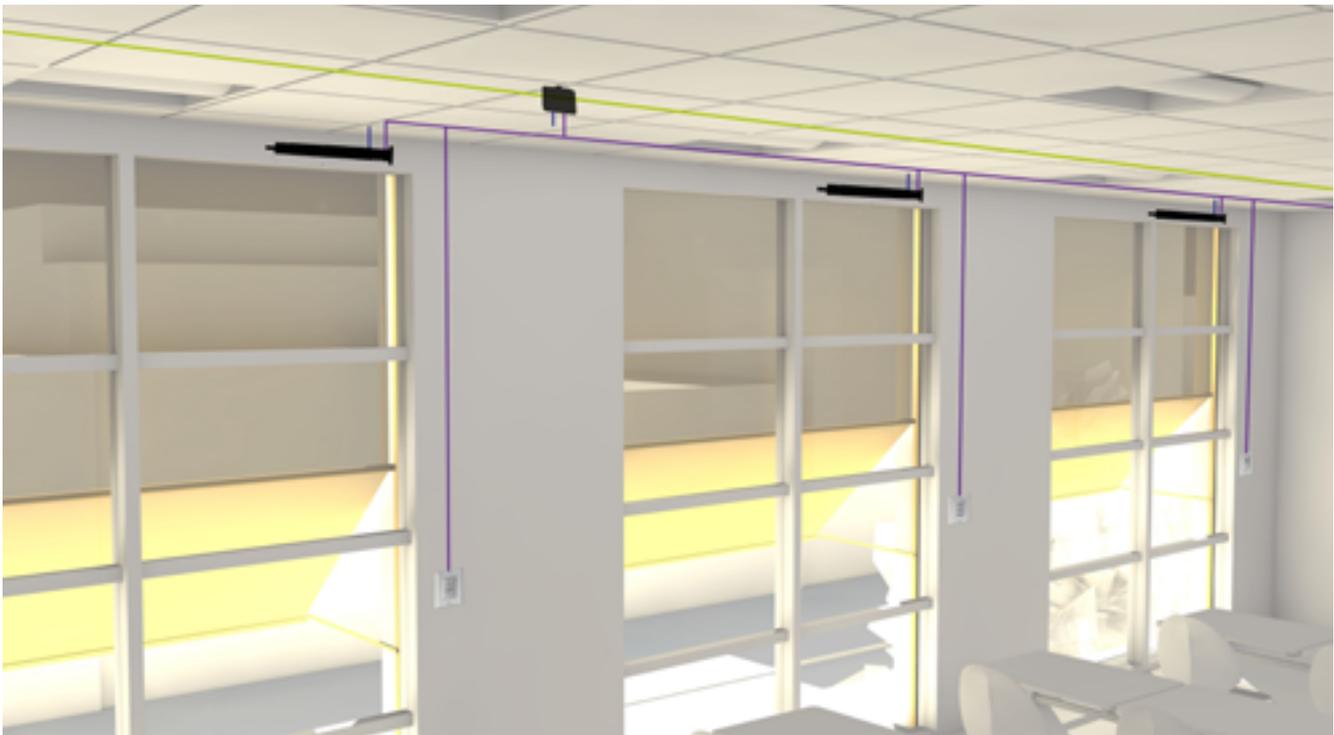


### Motor Controller with Telis Modulis RTS/ Smoove Uno RTS remote controls



# Solutions for buildings

**Typical animeo IP/io and IP/RS485 installation**  
**Somfy RS485 devices connected to one data communication line**



**USB io Transceiver to integrate motors and local controls**



# Solutions for buildings

## Selection of local controls for the animeo range

Somfy solutions include a wide range of fixed or remote local controls according to building usage (public/private). All local controls dedicated to the different animeo solutions (Solo, IB+, IP, KNX, LON) can be found in the relevant chapters.

### Smoove 1 RTS



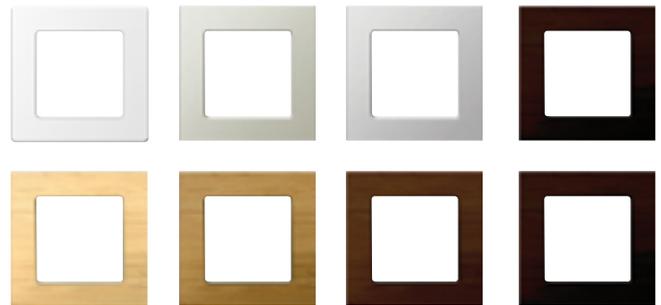
1 channel on-wall radio transmitter to communicate with the RTS radio module.

Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to + 60° C
Operational conditions	dry living rooms
Radio frequency	433.42 MHz

#### Smoove 1 RTS

• Pure shine	Ref. 1 810 873
• Black shine	Ref. 1 810 902
• Silver shine	Ref. 1 810 904
Adapter disc for other switching programs	Ref. 9 016 911

### Smoove frames



#### Smoove frames

• Pure	Ref. 9 015 022
• Silver Lounge	Ref. 9 015 024
• Silver Mat	Ref. 9 015 025
• Black	Ref. 9 015 023
• Light Bamboo – wood finish	Ref. 9 015 027
• Ambergri Bamboo – wood finish	Ref. 9 015 026
• Cherry – wood finish	Ref. 9 015 236
• Walnut – wood finish	Ref. 9 015 237
• Double frame pure	Ref. 9 015 238

### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

Smoove IB Origin	Ref. 1 811 272
------------------	----------------

### Smoove 1 RTS Origin



Manual control of several motors over RTS. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

Smoove 1 RTS Origin	Ref. 1 811 218
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# Solutions for buildings

## Telis 1 RTS



Pure Silver Lounge Patio

1 channel handheld radio transmitter, control of one or several motors per radio.

Telis 1 RTS = 1 channel: single or group operation possible.

### Telis 1 RTS

• Pure	Ref. 1 810 630
• Silver	Ref. 1 810 637
• Lounge	Ref. 1 810 649
• Patio	Ref. 1 810 642

Scope of delivery: handheld transmitter including wall brackets and battery.

## Telis 1 Modulis RTS



Pure Silver Lounge

1 channel handheld radio transmitter, manual control of one or several Venetian blind motors per radio.

Comfortable manual alignment of the slats using the scroll wheel.

### Telis 1 Modulis RTS

• Pure	Ref. 1 810 974
• Silver	Ref. 1 810 975
• Lounge	Ref. 1 810 976

Scope of delivery: handheld transmitter including wall brackets and battery.

# Solutions for buildings

## Telis 4 RTS



Pure Silver Lounge Patio

5 channel handheld radio transmitter, manual control of one or several motors per radio.

Telis 4 RTS = 5 channels: single or group operation possible.

### Telis 4 RTS

• Pure	Ref. 1 810 631
• Silver	Ref. 1 810 638
• Lounge	Ref. 1 810 651
• Patio	Ref. 1 810 644

Scope of delivery: handheld transmitter including wall brackets and battery.

## Telis 4 Modulis RTS



Pure Silver Lounge

5 channel handheld radio transmitter, manual control of one or several Venetian blind motors per radio.

Comfortable manual alignment of the slats using the scroll wheel.

Telis 4 Modulis RTS = 5 channels: single or group operation possible.

### Telis 4 Modulis RTS

• Pure	Ref. 1 810 765
• Silver	Ref. 1 810 663
• Lounge	Ref. 1 810 664

Scope of delivery: handheld transmitter including wall brackets and battery.

# Solutions for buildings

## Selection guide for sensors associated with animeo solutions

	Wind				Temperature			
	Ref. 9 013 807	Ref. 9 001 608	Ref. 9 140 180	Ref. 9101479	Ref. 9 001 611	Ref. 9 008 044	Ref. 9 709 808	Ref. 9 001 461
	Wind direction sensor 	Wind sensor 	Heated wind sensor 	Eolis wind sensor 	Outside temperature sensor 	Inside temperature sensor 	Room thermostat 	KNX Inside temperature sensor 
<b>animeo Solo</b>		OK (1)		OK (1)	OK (1)	OK (1)	OK (1)	
<b>animeo IB+</b>	OK (2)	OK (2)	OK (2)		OK (2)	OK (4)		
<b>NEW</b> <b>animeo IP/io</b>	OK (2)	OK (2)	OK (2)		OK (2)	OK (4)		
<b>NEW</b> <b>animeo IP/RS485</b>	OK (2)	OK (2)	OK (2)		OK (2)	OK (4)		
<b>animeo KNX</b>	OK (8)	OK (10)	OK (10)		OK (8)			OK (5)
<b>animeo LON</b>	OK (3)	OK (3)	OK (3)		OK (3)		OK (11)	

- (1) Directly connected to animeo Solo Building Controllers 1 and 2.
- (2) Directly connected to the Outside sensor box.
- (3) Directly connected to the Outside sensor box and the Outside sensor box has to be connected to the LON sensor interface.
- (4) Directly connected to the Inside sensor box.
- (5) Directly connected to the Building Controller AS 315 N
- (6) The Sensor station is directly connected to the Building Controllers.

# Solutions for buildings

Sun		Rain		Combined sensors/Sensor Station					Others
Ref. 9 154 043	Ref. 9 154 217	Ref. 9 016 344	Ref. 9016345	Ref. 9154080	Ref. 9 015 047	Ref. 9 015 079	Ref. 9 013 726	Ref. 9 013 727	Ref. 9 001 612
Kit sun sensor and bracket	Kit sun sensor and bracket	Rain sensor Ondeis 24 V DC	Rain sensor	Sun and wind combined sensor Soliris IB	Compact Sensor (wind, sun, rain, temperature, clock)	Compact Sensor for the KNX Building Controller AS 315 N (wind, sun, rain, temperature, clock)	Sensor station	Sensor station extended	DCF receiver
									
	OK (1)		OK (1)	OK (1)					
OK (2)		OK (2)			OK		OK (6)	OK (6)	OK
OK (2)		OK (2)			OK		OK (6)	OK (6)	
OK (2)		OK (2)			OK		OK (6)	OK (6)	
OK (8)		OK (8)			OK	OK	OK (9)	OK (9)	
OK (3)		OK (3)					OK (7)	OK (7)	OK

(7) The Sensor station is directly connected to the LON Sensor interface.

(8) Directly connected to the Outside sensor box and to the Master Control W2 and W8.

(9) Directly connected to the Outside sensor box and the sensor is directly connected to the Master Control W2 and W8

(10) Directly connected to the Master Control W2 and W8.

(11) Via binary input on Motor Controller KNX and LON.

# Solutions for buildings

## Comparative table of functions

	Solo	IB +	<b>NEW</b> IP/io	<b>NEW</b> IP/RS485	KNX	LON
BMS interoperability (OPC server)	-	✓	✓	✓	✓	✓
Integrated data logging (system status)	-	✓	✓	✓	✓	-
Integrated building timer 	✓	✓	✓	✓	✓	✓
Integrated zone timer 	-	✓	✓	✓	✓	✓
Integrated yearly timer 	-	-	✓	✓	✓	✓
Zone control switch/key switch 	✓	✓	✓	✓	✓	✓
System configuration	PC software	✓	✓	✓	✓	✓
	Via display	✓	-	-	-	-
System operation	PC software (BMS)	-	✓	✓	✓	✓
	Via display	✓	-	-	✓	✓

### User comfort/Energy saving functions

Wired local control	✓	✓	-	✓	✓	✓
Radio local control (Somfy RTS/io)	✓	✓	✓	-	✓	✓
Radio local control (EnOcean)	✓	✓	-	-	✓	✓
Web remote control			✓	✓	✓	✓
Radio link to Bus network (Somfy RTS)	-	-	-	-	✓	✓
Light control through Somfy RTS	-	-	-	-	✓	✓
Inside temperature 	-	✓	✓	✓	✓	✓
Sun 	✓	✓	✓	✓	✓	✓
Sun tracking	-	✓	✓	✓	✓	✓
Zone based shadow management	-	-	-	-	✓	-
Window based shadow management	-	-	-	-	-	✓
Auto/Manual priority	-	✓	✓	✓	✓	✓
Auto/Manual priority via presence detector	-	✓	-	-	✓	✓
Link to HVAC system	-	✓	✓	✓	✓	✓
DALI connection/Light scenes	-	-	-	-	✓	✓

### Security Functions

Alarm input	✓	✓	✓	✓	✓	✓
Wind speed 	✓	✓	✓	✓	✓	✓
Wind direction 	-	✓	✓	✓	✓	✓
Rain 	✓	✓	✓	✓	✓	✓
Outside temperature 	✓	✓	✓	✓	✓	✓
Snow 	-	✓	✓	✓	✓	-
Frost	✓	✓	✓	✓	✓	✓
Ice	-	✓	✓	✓	✓	✓
Window contact	-	-	-	-	✓	✓

# animeo Solo

- System topology
- Benefits
- Products
- Project example
- Case study



# animeo Solo

The easy-to-use system to control 1 or 2 zones and up to 800 motors.

Specifically designed for small buildings.

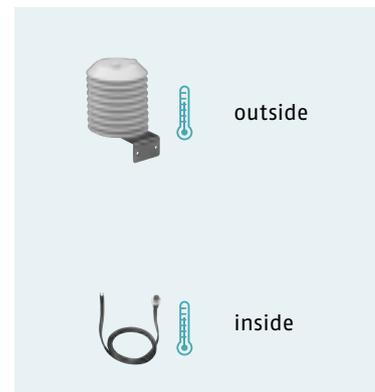
animeo Solo is based on IB Somfy Controlling Technology and can also be integrated with the animeo IB+ Motor Controller.

## System topology

### Outside sensors



### Temperature sensors



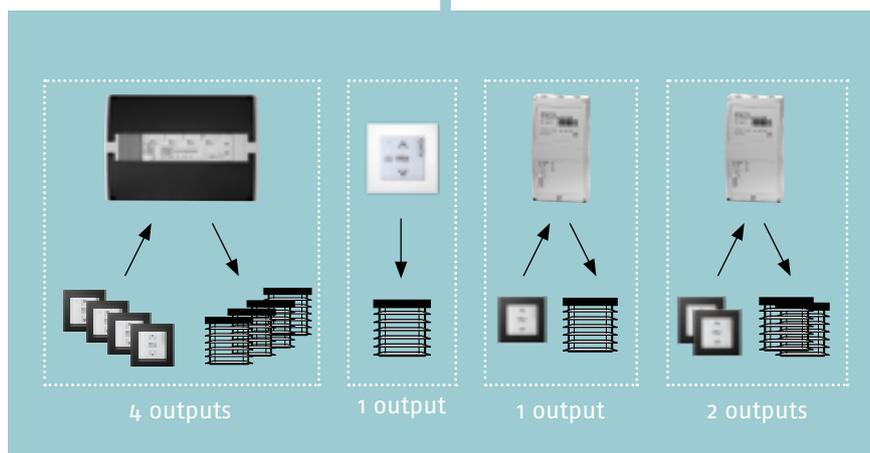
### Building Controllers



### Compatible with radio local control



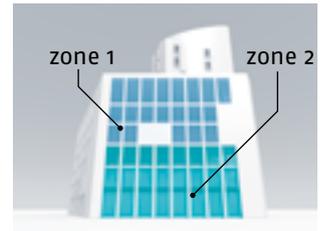
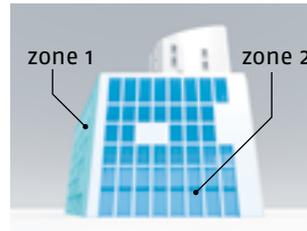
### Motor Controllers



## Benefits

### Easy programming and installation

- Easy programming and commissioning using the LCD display (no need for a computer).
- The system comes with a basic configuration, and the user can use the screen-based interface to program the system, which saves commissioning time on site.



### Energy-saving functions

- Effective management of solar gains and light levels to improve building energy performance and occupants visual comfort.
- In summer and winter alike, animeo Solo automatically controls your motorized sun protection devices using sensors. In winter, for example, as soon as night falls, the pre-programmed "cold protection" function closes all shutters and sun protection devices in order to increase window insulation and avoid excessive heating consumption.
- In the daytime, on the other hand, its "natural heating" function opens the shutters and sun protection devices to make the most of the sun's solar energy.



### Simple operation for facility management

- The building manager can control (up - down - stop) each zone separately or lock zones for maintenance operations such as window cleaning.
- The LCD continuously presents the system status and weather data such as wind speed, rain, sun radiation and temperature.



# animeo Solo

## Building Controller

### animeo Solo Building Controller



Central Control unit to manage of 1 or 2 façade orientations.

#### Product benefits

- Controlling up to 2 zones or façades.
- For each zone, up to 100 Motor Controller devices can be connected.
- AC, DC or DC-E motor systems can be controlled (one type per zone).
- Compatible with all Motor Controller devices from the Somfy Controlling technology: animeo IB+, IB-Inteo, CD.

#### At zone / façade level

- Precise setting of running and tilting times depending on the selected end product to be controlled.
- Sun function with configurable threshold values, time delays, positions and angle.
- Wind security function with configurable threshold values and sensor assignment.
- Rain and frost security function with configurable threshold value and time delays.
- Outside temperature function with configurable threshold value and time delays.
- Direct connection of 1 or 2 independent zone switches for maintenance purposes.

#### At building level

- Timer with 2 time settings per day to configure an UP or DOWN command (incl. blocking).
- An input for the major alarm, potential free contact. When the input is active all end products are locked in the UP position.

Dimensions (w × h × d)	225 × 148 × 48 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
<b>animeo Solo 1 zone</b>	Ref. 1 860 143
<b>animeo Solo 2 zone</b>	Ref. 1 860 144

# animeo Solo

## Sensors and accessories

### Soliris Sensor



Combined weather station to measure wind speed and sun intensity.

#### Product benefits

- To measure wind speed and sun intensity combined in one housing.
- Comfort threshold setting on the animeo Solo.

Dimensions (w × h × d)	160 × 236 × 40 mm
Degree of protection	IP 43
Protection class	II
Wiring recommendations	2 × 2 × 0.8 mm

<b>Soliris Sensor</b>	Ref. 9 154 080
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### Eolis Sensor



Wind speed sensor in a compact housing to measure wind speed.

#### Product benefits

- To measure wind speed.
- Comfort threshold setting on the animeo Solo.

Dimensions (w × h × d)	160 × 236 × 40 mm
Degree of protection	IP 33
Protection class	II
Wiring recommendations	2 × 2 × 0.8 mm

<b>Eolis Sensor</b>	Ref. 9 101 479
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### Wind Sensor



Measuring of wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, ø 240 mm max. ø-mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 × 1.5 mm

<b>Wind Sensor (not heated)</b>	Ref. 9 001 608
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### Sun Sensor



Sun sensor for the measuring of luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for save and solid wiring to the Outside Sensor Box.

Dimensions Sun Sensor (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 43
Wiring recommendations	2 × 0.8 mm
Angle position	150°

<b>Soliris sun sensor without mounting brackets</b>	Ref. 9 154 217
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<b>Mounting brackets for sun sensor</b>	Ref. 9 127 888
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# animeo Solo

## Sensors and accessories

### Outside Temperature Sensor



To measure exterior temperatures in conjunction with the Outside Sensor Box.

#### Product benefits

- Precise measurement of exterior temperature values which can be displayed in °C or °F in the animeo building control solutions.
- Protective housing to prevent measurements influenced by spiders and birds
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm ø 115 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm
<b>Outside Temperature Sensor</b>	Ref. 9 001 611

### Housing for Inside Temperature Sensor



To install an Inside Temperature Sensor.

Dimensions (w × h × d)	75 × 75 × 25 mm
<b>Housing for Inside Temperature Sensor</b>	Ref. 9 008 045

### Inside Temperature Sensor



To measure the inside temperature.

<b>Inside Temperature Sensor</b>	Ref. 9 008 044
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### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque and UV stabilized housing. 24 V DC and 230 V AC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard mast with 50 mm diameter.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 × 0.75 mm<sup>2</sup>).

Dimensions (w × h × d)	115 × 100 × 85 mm
Degree of protection	IP 44
Wiring recommendations	3 × 1.5 mm
<b>Rain Sensor Ondeis 24 V DC</b>	Ref. 9 016 344
<b>Rain Sensor Ondeis 230 V AC</b>	Ref. 9 016 345

## Sensors and accessories

### Power Supply DRM 24 V DC 1.5 A



To supply the Rain Sensor Ondeis and the wind sensor.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

**Power Supply DRM 24 V DC 1.5 A** Ref. 9 017 611

For Din-rail installation, 4 SU's.

### Room Thermostat



To measure inside temperature.

Dimensions (w × h × d)	75 × 75 × 25 mm
Degree of protection	IP 20
Protection class	III
Wiring recommendations	2 × 2 × 0.8 mm

**Room Thermostat** Ref. 9 709 808

# animeo Solo

## Local controls

### Smoove 1 RTS



1 channel on-wall radio transmitter to communicate with the RTS radio module.

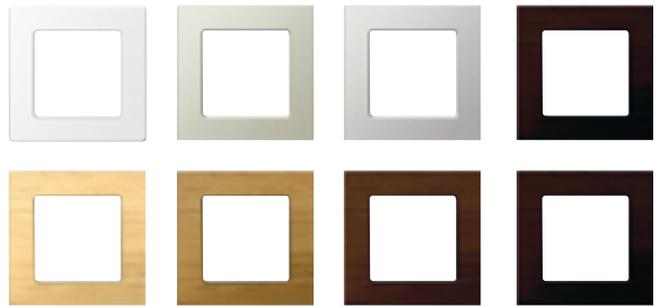
Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to + 60° C
Operational conditions	dry living rooms
Radio frequency	433.42 MHz

#### Smoove 1 RTS

• Pure shine	Ref. 1 810 873
• Black shine	Ref. 1 810 902
• Silver shine	Ref. 1 810 904
<b>Adapter disc for other switching programs</b>	Ref. 9 016 911

For wall-mounted installation.

### Smoove frames



#### Smoove frames

• Pure	Ref. 9 015 022
• Silver Lounge	Ref. 9 015 024
• Silver Mat	Ref. 9 015 025
• Black	Ref. 9 015 023
• Light Bamboo - wood finish	Ref. 9 015 027
• Ambergis Bamboo - wood finish	Ref. 9 015 026
• Cherry - wood finish	Ref. 9 015 236
• Walnut - wood finish	Ref. 9 015 237
• Double frame pure	Ref. 9 015 238

### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable central control or group operability.

<b>Smoove IB Origin</b>	Ref. 1 811 272
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For flush-mounted installation.

### Smoove 1 RTS Origin



Manual control of several motors over RTS. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

<b>Smoove 1 RTS Origin</b>	Ref. 1 811 218
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# animeo Solo

## Local controls

### Telis 1 RTS



Pure Silver Lounge Patio

1 channel handheld radio transmitter, control of one or several motors by radio.

Telis 1 RTS = 1 channel: single or group operation possible.

#### Telis 1 RTS

• Pure	Ref. 1 810 630
• Silver	Ref. 1 810 637
• Lounge	Ref. 1 810 649
• Patio	Ref. 1 810 642

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 1 Modulis RTS



Pure Silver Lounge

1 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.

#### Telis 1 Modulis RTS

• Pure	Ref. 1 810 974
• Silver	Ref. 1 810 975
• Lounge	Ref. 1 810 976

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 RTS



Pure Silver Lounge Patio

5 channel handheld radio transmitter, manual control of one or several motors by radio.

Telis 4 RTS = 5 channels: single or group operation possible.

#### Telis 4 RTS

• Pure	Ref. 1 810 631
• Silver	Ref. 1 810 638
• Lounge	Ref. 1 810 651
• Patio	Ref. 1 810 644

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 Modulis RTS



Pure Silver Lounge

5 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.

Telis 4 Modulis RTS = 5 channels: single or group operation possible.

#### Telis 4 Modulis RTS

• Pure	Ref. 1 810 765
• Silver	Ref. 1 810 663
• Lounge	Ref. 1 810 664

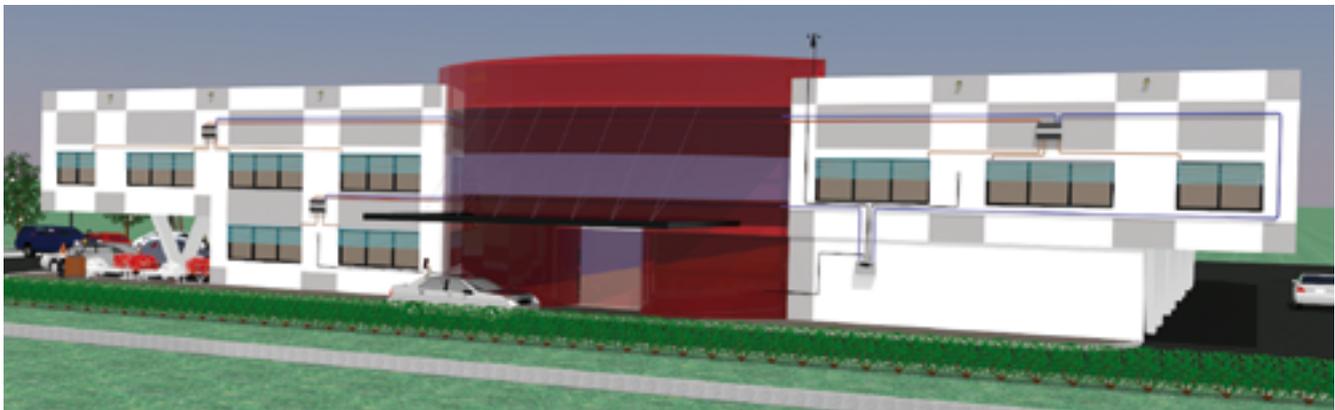
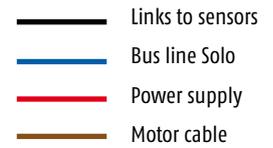
Scope of delivery: handheld transmitter including wall brackets and battery.

# animeo Solo

## Project example

### Functionality required and specified by the building owner

- A small building with two separate floors to be controlled
- The solution must be simple and intuitive to install
- An easy-to-operate display is desired for the user interface
- Local control through sensitive touch is also requested for excellent user comfort.



## Products installed



animeo Solo  
2 zones  
Ref. 1 860 144



Soliris Sensor  
Ref. 9 154 080



Rain Sensor  
Ref. 9 016 345



Outside temperature  
Sensor  
Ref. 9 001 611



Motor Controller  
Smoove UNO IB+  
Ref. 1 811 205

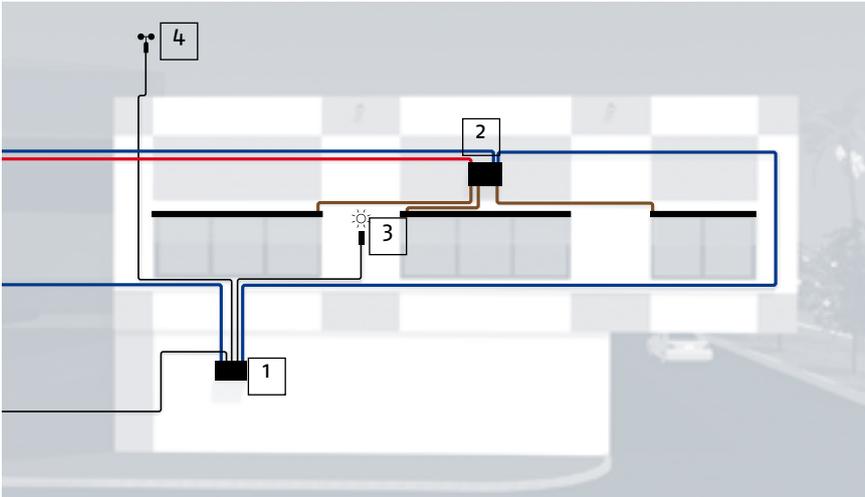


animeo Motor  
Controller  
Ref. 1860049

## Automatic functions

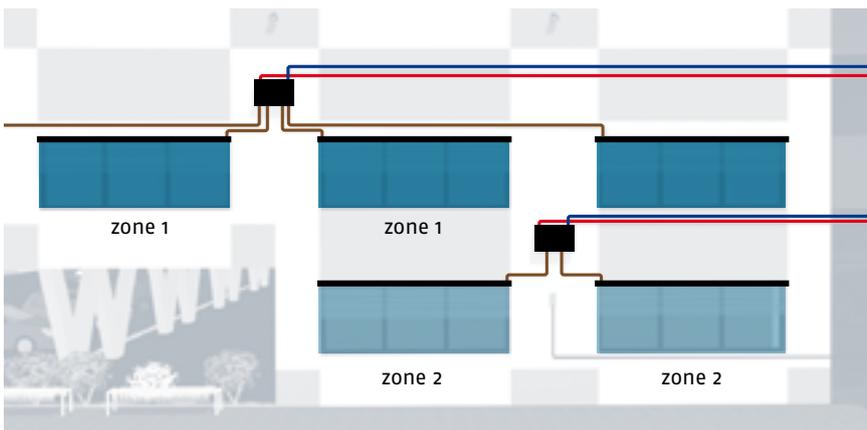
- Wind security per zone
- Sun automatic per zone
- Rain and frost security
- Daily timer per zone

## Installation details



The animeo Solo Building Controller is directly connected to the Motor Controllers, the Sun Sensor and the Sensor Station on the roof.

1. animeo Solo
2. Motor Controllers
3. Sun sensor
4. Wind sensor



The animeo Solo Building Controller enables automation of two zones (here: ground floor and first floor).

Each automatic function applies per zone.

# animeo Solo

## Case study

### Forskningsveien 13 in Oslo, Norway



#### Initial Brief

The Center for Psychopharmacology in Forskningsveien 13 is part of Diakonhjemmet Hospital, located at Vinderen in Oslo. Diakonhjemmet Hospital is a non-profit corporation owned by the Diakonhjemmet Foundation.

#### Reasons to use animeo Solo

Three zones needed to be controlled – east, south and west – which is why two animeo Solo units were used. Sun tracking was not a prerequisite in this case.

One of the main concerns was to have one switch per room and to be flexible in reprogramming the switches. Another major wish was to keep the visible wiring inside the building and the rooms to a minimum which could be perfectly realised with RTS switches.

The good cost-benefit ratio and the reliability of this system convinced the investors to chose animeo Solo.



#### Technical information

- 1 x animeo Solo 2
- 1 x animeo Solo 1
- 36 Motor Controller 4 AC
- 36 animeo RTS cards
- 108 EVB motors
- 64 Smoove Origin RTS controls



# animeo IB+

- System topology
- Benefits
- Products
- Project example
- Case study



# animeo IB+

An intelligent system to control 1 to 16 zones and up to 6400 motors. Specifically designed for medium and large buildings.

## System topology

### Inside sensors

Max 16x  Max 4x 



Inside Sensor Box

### Outside sensors

3x    
  



Compact Sensor

### Outside sensors

Max 12x  Max 4x   
    

Outside Sensor Box

### Building Controllers

**NEW**  1 - 4 zones  
 Touch Buco **Q2 2017**  1 - 8 zones

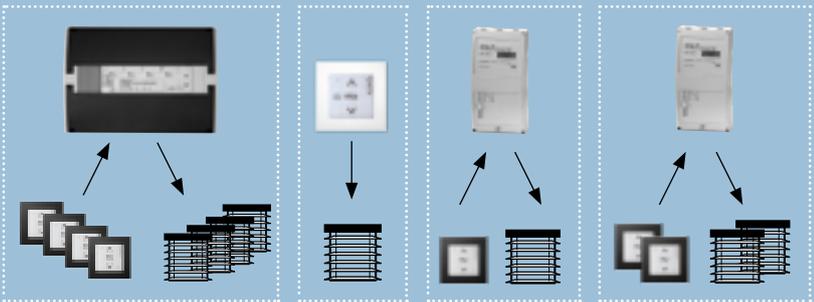
 1 - 4 zones

**OR**

 1 - 8 zones  9 - 16 zones

 Configuration/Operating Software

### Motor Controllers



4 outputs      1 output      1 output      2 outputs

### Compatible with radio local control

 Radio Receiver



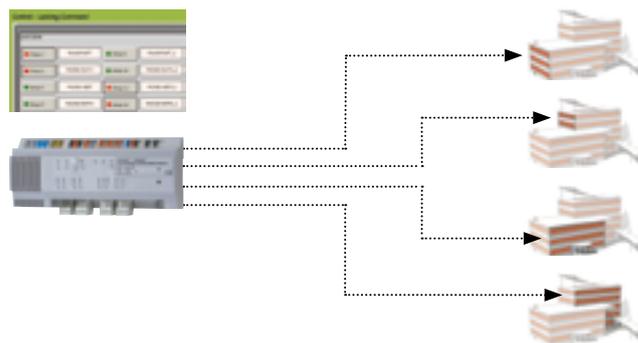
 

## Benefits

### Application independent

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- Very extensive and comprehensive selection of functions and parameters, specially matched to the type of end product to be controlled such as Venetian blinds, blinds, roller shutters and windows.
- The system comes with a basic configuration and the user can use the screen-based interface to program the system and define the zones.



### Tracking the sun's position

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- The sun tracking function positions the Venetian blind slats according to the direction of the sun's rays for the best visual comfort all day long.

### Reduced energy costs

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- Optimised energy savings in combination with a variety of functions: natural air-conditioning, cooling, heating, limited tilting angle, etc.
- The system switches back to automatic at a pre-defined time.

### Interoperability

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- A link to Building Management Systems (BMS) is available through animeo IB+ OPC software.

### Optimum balance between user comfort and automatic functions

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- Advanced operating mode: enhanced room-specific user comfort by disabling non-security functions (e.g. sun) as soon as local operation has been assigned.

## Building Controller

### 4 Zone Touch Building Controller

NEW



#### Product benefits

- The 4 Zone Touch Building Controller is a central unit designed for solar shading and window automation to control up to four individual façade orientations of a building. It answers to different building segments such as public, commercial, healthcare, education and is applicable for any interior or exterior application.
- Configuration, monitoring and maintenance is realized through a menu guided intuitive capacitive 7 inch user touch screen providing a wide range of useful functions optimizing the building performance.
- The 4 Zone Touch Building Controller is compatible with all animeo IB+ Motor Controllers and the new 2 wire IB+ bus technology.

#### Further features

- One system can control up to 6400 motors.
- User-friendly configuration software (for setup, it is recommended that the technician is fully familiar with sun protection and window control systems in order to ensure the best possible system performance).
- The separation of the Sensor Interface (Outside Sensor Box), which is normally mounted outside, and the control center (Building Controller), which is normally mounted inside, enables extremely cost-effective lightning protection for the system.
- Communication between the Outside Sensor Box and the Building Controller is monitored.
- Extensive yet clear selection of functions and parameters which are specially tailored to the type of end product to be controlled (Venetian blinds, blinds, roller shutters, and windows).
- Sun function with configurable threshold values, time delays, position, angled orientation for Venetian blinds, freely defined sensor assignment, for each zone.
- Sun tracking: instead of one fixed position, up to three different positions can be actuated per day for each zone. These three positions can be set by the software and can differ for each month. They can be manually maintained in the system.
- Wind safety function in combination with wind direction: to increase the lifetime of the blind elements, they can be moved into a safety position if a certain wind force is reached and if the wind direction is such that the specific zone is affected.
- The blind elements are only moved into the safety position if there are strong winds (gale warning).
- Rain and snow safety function with configurable time delays, both for each area.
- Ice safety function with configurable temperature threshold value and delay times, both for each zone.

- Zone timer with two configurable time ranges per day for the configuration of an up and down or position command.
- Central timer with two configurable time ranges per day for the configuration of an up and down command.
- Potential free main alarm input with configurable action per area: up and down command with lock.
- Password protection for settings.
- Potential free error output if, for example, a sensor fails.
- Connection to Building Management System (BMS) possible using OPC software plug-in.

Dimensions (w × h × d)	200 × 132 × 72 mm
Degree of protection	IP 20
Protection class	I
Operating voltage	100 - 230 V AC
Operating temperature	0° C to + 45° C

<b>animeo IB + 4 Zone Touch Building Controller</b>	Ref. 1 860 254
<b>animeo IB + 8 Zone Touch Building Controller</b>	Ref. 1 860 255

Q2 2017

# animeo IB+

## Building Controller

### Building Controller



4 zones



8 zones

#### Product benefits

- A system with one Building Controller can control up to eight zones (façade orientation) and a system with two Building Controllers can control up to 16 zones.
- Optimised energy savings in conjunction with a wide range of functions: natural ventilation, cooling, heating.
- Enhanced operating mode: increased, room-based user comfort thanks to the suppression of centralised non-safety functions (for example, sun function) as soon as local controls are used. The system is switched back into automatic mode at three freely definable times each day.
- Restricted Venetian blind tilting angles for room users ensure energy savings whilst still enabling excellent lighting comfort.
- Compatible with all conventional Motor Controllers (animeo IB+, Inteo and CD). For maximum functionality, we recommend animeo IB+ Motor Controllers.

#### Further features

- One system can control up to 6400 motors.
- User-friendly configuration software (for setup, it is recommended that the technician is fully familiar with sun protection and window control systems in order to ensure the best possible system performance).
- The separation of the Sensor Interface (Outside Sensor Box), which is normally mounted outside, and the control center (Building Controller), which is normally mounted inside, enables extremely cost-effective lightning protection for the system.
- Communication between the Outside Sensor Box and the Building Controller is monitored.
- Extensive yet clear selection of functions and parameters which are specially tailored to the type of end product to be controlled (Venetian blinds, blinds, roller shutters, and windows).
- Sun function with configurable threshold values, time delays, position, angled orientation for Venetian blinds, freely defined sensor assignment, for each zone.
- Sun tracking: instead of one fixed position, up to three different positions can be actuated per day for each zone. These three positions can be set by the software and can differ for each month. They can be manually maintained in the system.
- Wind safety function in combination with wind direction: to increase the lifetime of the blind elements, they can be moved into a safety position if a certain wind force is reached and if the wind direction is such that the specific zone is affected.
- The blind elements are only moved into the safety position if there are strong winds (gale warning).
- Rain and snow safety function with configurable time delays, both for each area.

- Ice safety function with configurable temperature threshold value and delay times, both for each zone.
- Zone timer with two configurable time ranges per day for the configuration of an up and down or position command.
- Central timer with two configurable time ranges per day for the configuration of an up and down command.
- Potential free main alarm input with configurable action per area: up and down command with lock.
- Password protection for settings.
- Potential free error output if, for example, a sensor fails.
- Connection to Building Management System (BMS) possible using OPC software plug-in.

Dimensions (w × h × d)	210 × 90 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C

animeo IB + Building Controller 4 zones	Ref. 1 822 395
animeo IB + Building Controller 8 zones	Ref. 1 822 064

For DIN-rail installation, 12 SUs.

### Operating Software + Interface



Interface between the Building Controller and the computer including configuration and user software.

#### Product benefits

- User-friendly screen display: large, high, good resolution, multi-coloured.
- Intuitively designed, comprehensive and operator-friendly.
- The Operating software can be used regardless of the location of the Building Controller installation.

#### Further features

- For computers with minimum Intel Pentium II, 500 MHz, Windows 2000, CD Rom disc drive, 128 MB storage and 40 MB free hard drive storage.

Software + USB/RS485 Interface	Ref. 9 012 519
USB/RS485 Interface	Ref. 9 016 356

# animeo IB+

## User interfaces

### OPC Software



The animeo IB+ OPC Software is a software plug-in which can be used in combination with the animeo IB+ Operating Software 2.2.

Through this the link to the Building Management System (BMS) can easily be established and makes animeo IB+ systems even more flexible.

Various functions can be executed through the Building Management System using this connection to the animeo IB+ system: control of individual zones, switching between automatic and manual priority, feedback of sensor status and values, and more.

The animeo IB+ OPC Software allows managing up to 8 animeo IB+ systems resulting in the control of max. 128 individual zones.

The animeo IB+ OPC Software is fully OPC certified with the OPC foundation rules and standards.

**animeo IB+ OPC Software**

Ref. 9 015 866

## Sensors and accessories

### Compact Sensor



The complete weather station in a small format. 3 × sun, 1 × wind, 1 × outside temperature, 1 × rain, GPS receiver. Additional requirements: 24 VDC power supply.

#### Product benefits

- Wiring made easy as all sensors are integrated in the device.
- Monitored communication between Building Controller and Compact Sensor.

#### Further features

- Integrated sensors:
- Three sun sensors in fixed directions 90° (east), 180° (south) and 270° (west).
  - Wind speed sensor without moving parts.
  - Outside temperature sensor.
  - Heated rain sensor.
  - Bracket for wall or post mounting.

Dimensions (w × h × d)	96 × 77 × 118 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V DC ± 10%
Operating temperature	- 25° C to + 50° C

**animeo IB+ Compact Sensor**

Ref. 9 015 047

### Lightning protection



To protect the controls from lightning. Is used in conjunction with the Outside Sensor Box or Compact Sensor.

Electronic lightning protection power supply	Ref. 9 001 629
Electronic lightning protection RS485	Ref. 9 001 630

## Sensors and accessories

### Outside Sensor Box/Outside Sensor Extension Box



**Outside Sensor Box** is the interface between the sensor stations or individual sensors to the animeo building control solutions. It requires an external 24 V AC/DC power supply.

**Outside Sensor Extension Box** offers extension capabilities of two additional wind speed sensors and four sun sensors.

#### Product benefits

- All sensors incl. Outside Sensor Box can be fixed to the Sensor Station mast.
- Up to 8 sun sensors, 2 wind sensors, 1 wind direction sensor, 1 rain sensor, 1 outside temperature sensor as well as a DCF plug module can be connected to the Outside Sensor Box.
- Only two cables must be laid to the outside. All wires easily integrated through spring clamp connectors.

Dimensions (w × h × d)	207 × 255 × 90 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V AC/DC
Operating temperature	- 30° C to + 70° C

<b>Outside Sensor Box</b>	Ref. 9 001 606
<b>Outside Sensor Extension Box</b>	Ref. 9 001 607

#### Further features

- Easy and quick start-up in conjunction with animeo building control solutions.
- Status display through LED's for clear monitoring of connected and functioning individual sensors.
- It can directly be fixed to the sensor station mast

### Power Supply DRM 24 V 1.5 A



To supply the Outside Sensor Box (without heated sensors) or the animeo IB+ Compact Sensor.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>Power Supply DRM 24 V DC 1.5 A</b>	Ref. 9 017 611
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### animeo Power Supply DC



To supply the Outside Sensor Box (with heated sensors), the animeo KNX Master Control W2/W8 and the animeo LON Sensor Interface.

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100%) 4.5 A (switch on duration 50%: 3 min on, 3 min off)

<b>animeo Power Supply DC</b>	Ref. 1 860 093
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For wall-mounted and DIN-rail installation.

## Sensors and accessories

### Wind Sensor



To measure wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, $\varnothing$ 240 mm max. $\varnothing$ -mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm <sup>2</sup>

<b>Wind Sensor</b>	Ref. 9 001 608
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### Heated Wind Sensor



To measure wind speed in connection with the Outside Sensor Box. Recommended for geographical areas with severe winters.

#### Product benefits

- The turning parts can not get stuck due to ice or snow thanks to integrated thermostat controlled heating.
- Provides reliable and precise wind speed measurement during the winter period.
- High resilience and durability by precision bearing.

Dimensions	Height 190 mm, $\varnothing$ 240 mm max. $\varnothing$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>

<b>Heated Wind Sensor</b>	Ref. 9 140 180
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### Wind Direction Sensor



To measure wind direction in connection with the Outside Sensor Box.

#### Product benefits

- Minimises the number of individual wind speed sensors installed to improve the façade aesthetics.
- Very good starting value by magnetic contact-free measure principle.
- Winter and offshore usable.
- High resilience and durability by precision bearing.

Dimensions	Height 303 mm, Arrow length 515 mm, max. $\varnothing$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>

<b>Wind Direction Sensor</b>	Ref. 9 013 807
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### Outside Temperature Sensor



To measure exterior temperatures in conjunction with the Outside Sensor Box.

#### Product benefits

- Precise measurement of exterior temperature values which can be displayed by °C or °F in the animeo building control solutions.
- Protective housing to prevent measurement influence by spiders and birds
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm, $\varnothing$ 115 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm

<b>Outside Temperature Sensor</b>	Ref. 9 001 611
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# animeo IB+

## Sensors and accessories

### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque housing and UV stabilized. 24 V DC and 230 V DC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard mast with 50 mm diameter.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 x 0.75 mm<sup>2</sup>).

Dimensions (w × h × d)	115 × 100 × 85 mm
Degree of protection	IP 44
Wiring recommendations	3 × 1.5 mm
<b>Rain Sensor Ondeis 24 V DC</b>	Ref. 9 016 344
<b>Rain Sensor Ondeis 230 V AC</b>	Ref. 9 016 345

### Sun Sensor



Sun sensor to measure luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for save and solid wiring to the Outside Sensor Box.

Dimensions (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 43
Protection class	III
Wiring recommendations	2 × 0.8 mm
Angle position	150°
<b>Sun Sensor without mounting bracket</b>	Ref. 9 050 100
<b>Mounting bracket for Sun Sensor</b>	Ref. 9 127 888
<b>Complete pack</b>	Ref. 9 154 043

### Sensor Station



The Sensor Station consists of an aluminium mast with pre-mounted and pre-wired Outside Sensor Box, 4 sun sensors, 1 wind sensor and 1 outside temperature sensor. The Sensor Station can be equipped with additional sensors such as sun sensors and a rain sensor. Wall brackets included.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions/mast height	3200 mm
<b>Sensor Station</b>	Ref. 9 013 726

### Sensor Station extended



The sensor station extended consists of an aluminum mast with a pre-mounted and pre-wired Outside Sensor Box, 8 sun sensors, 1 wind speed sensor, 1 wind direction sensor, a rain sensor and an outside temperature sensor.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions/mast height	3200 mm
<b>Sensor Station extended</b>	Ref. 9 013 727

## Sensors and accessories

### Mast without sensors



Individual mast for sun, wind and rain sensors.

Dimensions/mast height	3200 mm
<b>Mast without sensors</b>	Ref. 9 014 301

### Mast extended without sensors



Mast extended without sensors and Outside Sensor Box. Incl. accessories for wind direction sensor.

Dimensions/mast height	3200 mm
<b>Mast without sensors</b>	Ref. 9 014 302

### Roof mounting



To roof-mount the Sensor Station. Stainless steel.

<b>Roof mounting</b>	Ref. 9 014 300
<b>Strain connection for roof mounting only</b>	Ref. 9 014 303

### Inside Sensor Box



For connection to external push buttons or key switches per zone and up to 2 Inside Temperature Sensors.

#### Product benefits

- Window cleaners need no access to the complete user interface (animeo IP Visual Configuration Software).
- Inside Temperature Sensors enable easy extendability of the system's energy saving options.

Dimensions (w × h × d)	210 × 90 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
<b>Inside Sensor Box</b>	Ref. 9 001 614

For DIN-rail installation, 12 SUs.

## Sensors and accessories

---

### Housing for Inside Temperature Sensor



To install an Inside Temperature Sensor.

Dimensions (w × h × d)

75 × 75 × 25 mm

**Housing for Inside Temperature Sensor**

Ref. 9 008 045

### Inside Temperature Sensor



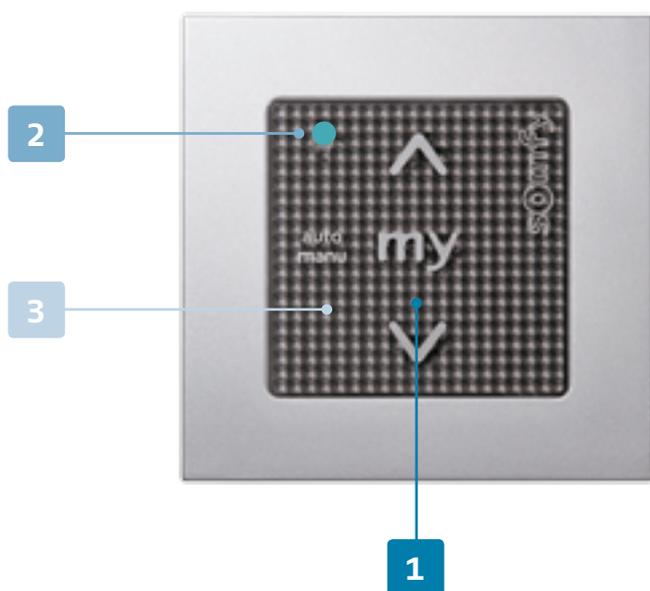
To measure the inside temperature.

**Inside Temperature Sensor**

Ref. 9 008 044

## Motor Controller for flush-mounted installation

single flush-mounted



- 1 • Touch-sensitive technology  
• my = intermediate position
- 2 • Display prioritised central commands (e.g. wind)
- 3 • Suitable for all 50 × 50 mm mounting frames  
• 3 colors  
• Combinable with cut-off relay for flush-mounted box  
• Sun automatic on/off

## Smoove frames



## Motor Controller

### Smoove UNO IB+



For roller shutters, screens, exterior Venetian blinds and windows. Designed for flush-mounted installation.

For the individual control of 1 × 230 V AC motors via touch-sensitive switch or in groups via Somfy IB or animeo IB+ controlling technology.

#### Product benefits

- Fits in standard 50 x 50 mm frames
- Cover plate and frame can be integrated at finish to prevent soiling during installation.
- Feedback of active status through LED on the device.

#### Further features

- Priority management between local and automatic commands directly on the device or through different modes configurable via animeo IB+ Building Controller.

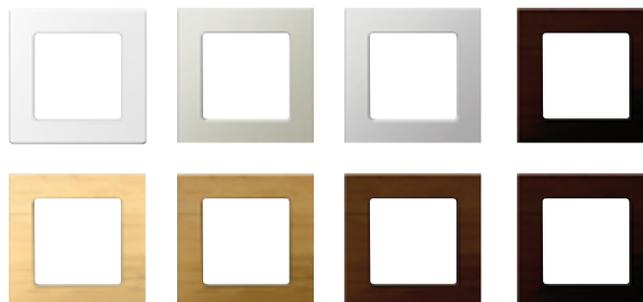
Dimensions (w × h × d)	71 × 71 × 44 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Output current	3.15 A

<b>Smoove UNO IB+ Pure Shine</b>	Ref. 1 811 203
<b>Smoove UNO IB+ Silver Shine</b> (only on request)	Ref. 1 811 204
<b>Smoove UNO IB+ Black Shine</b> (only on request)	Ref. 1 811 205

For flush-mounted installation.

## Accessories

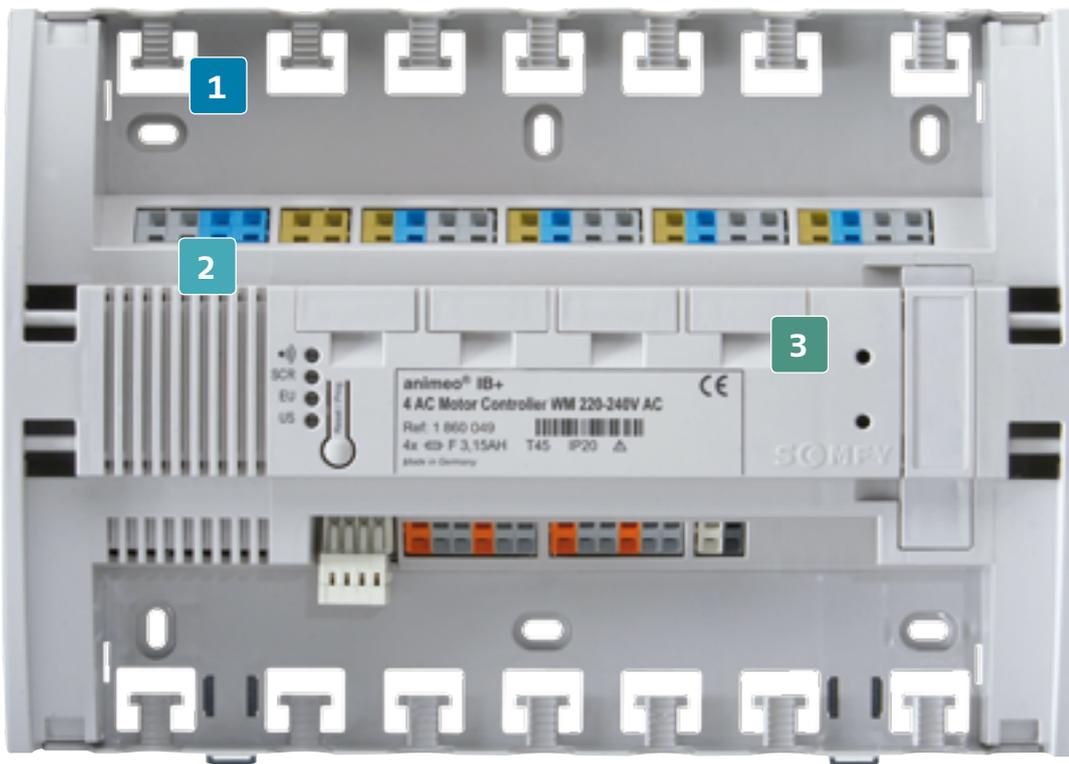
### Smoove UNO IB+ frames



#### Smoove frames

<b>Pure</b>	Ref. 9 015 022
<b>Silver Lounge</b>	Ref. 9 015 024
<b>Silver Mat</b>	Ref. 9 015 025
<b>Black</b>	Ref. 9 015 023
<b>Light Bamboo - wood-effect</b>	Ref. 9 015 027
<b>Ambergriis Bamboo - wood-effect</b>	Ref. 9 015 026
<b>Cherry - wood-effect</b>	Ref. 9 015 236
<b>Walnut - wood-effect</b>	Ref. 9 015 237
<b>Double frame Pure</b>	Ref. 9 015 238

## Motor Controller for wall-mounted or DIN-rail installation

**1****Quick assembly**

- Integrated tension relief, usable with cable ties

**2****Quick connectivity**

- Spring-clip connectors
- Dual connectors (in-out), to connect to the mains circuit for example

**3****Quick maintenance**

- Fuse holder per motor output accessible from the outside

## Motor Controller

### 4 AC Motor Controller



For roller shutters, screens, exterior Venetian blinds and windows. For individual control of 4 × 230 VAC motors via local push buttons, or in groups with IB+ Controlling Technology.

#### Product benefits

- Upgradable for local controlling by radio.
- Local setting of an intermediate position and of user ergonomics.

#### Further features

- Easily accessible safety fuses per output.

Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Output current	max. 3.15 A per output

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20

<b>4 AC Motor Controller WM</b>	Ref. 1 860 049
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For wall-mounted installation.

Dimensions (w × h × d)	210 × 90 × 61 mm
Degree of protection	IP 20

<b>4 AC Motor Controller DRM</b>	Ref. 1 860 081
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<b>4 AC Motor Controller DRM (pack 6)</b>	Ref. 1 860 082
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For DIN-rail installation, 12 SUs.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20

<b>4 AC Motor Controller Wieland</b>	Ref. 1 860 103
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Wieland Plug system compatible.

Dimensions (w × h × d)	254 × 180 × 61 mm
Degree of protection	IP 20

<b>4 AC Motor Controller Wago</b>	Ref. 1 860 293
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Wago Plug system compatible

<b>Housing IP 54</b>	Ref. 9 012 740
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For the integration of a Motor Controller DRM in a IP 54 housing. For wall-mounted installation.

Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Output current	max. 3,15 A per output

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20

<b>4 AC Motor Controller RTS WM</b>	Ref. 1 860 109
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For wall-mounted installation.

### 2 AC Motor Controller



For roller shutters, screens, exterior Venetian blinds and windows. For the individual controlling of 2 × 230 VAC motor via local push buttons, or in groups with IB+ Controlling Technology.

#### Product benefits

- Compact design suitable for e. g. installation in under-window or wall-mounted wiring conduits.
- Local setting of an intermediate position and of user ergonomics.

#### Further features

- Easy accessible fuses.

Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Output current	3.15 A

Dimensions (w × h × d)	90 × 180 × 45 mm
Degree of protection	IP 20

<b>2 AC Motor Controller WM</b>	Ref. 1 860 209
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<b>2 AC Motor Controller PCB</b>	Ref. 1 860 210
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For wall-mounted installation.

Printed Circuit Board (PCB) version for DIN-rail installation. Additional DIN-rail adapter needed (Ref. 9 008 049).

## Motor Controller

### 1 AC Motor Controller



**1 AC Motor Controller**  
For roller shutters, screens, exterior Venetian blinds, exterior Venetian blinds with 3 end limits and windows. For the individual control of 1 × 230 VAC motor via local push buttons, or in groups with IB+ Controlling Technology.



**1 AC Motor Controller Output Converter**  
Provides 1 x potential free output for individual control via local push buttons, or in groups with animeo IB+ Controlling technology.

#### Product benefits

- Compact design suitable for e.g. installation in under-window or wall-mounted wiring conduits.
- Local setting of an intermediate position and of user ergonomics.

#### Further features

- Easily accessible fuses.

Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Output current	3.15 A

Dimensions (w × h × d)	90 × 180 × 45 mm
Degree of protection	IP 20

<b>1 AC Motor Controller WM</b>	Ref. 1 860 121
<b>1 AC Motor Controller WM 3 end limit</b>	Ref. 1 860 123
<b>1 AC Motor Controller WM Output Converter</b>	Ref. 1 860 125

For wall-mounted installation.

Dimensions (w × h × d)	65 × 105 × 20 mm
Degree of protection	according to installation type

<b>1 AC Motor Controller Panel</b>	Ref. 1 860 122
<b>1 AC Motor Controller Panel Kit</b>	Ref. 1 860 163
<b>1 AC Motor Controller Panel 3 end limits</b>	Ref. 1 860 124
<b>1 AC Motor Controller Panel Output Converter</b>	Ref. 1 860 126

Printed Circuit Board (PCB) version for DIN-rail installation. Additional DIN-rail adapter needed.

### 4 DC Motor Controller



For interior blinds, interior Venetian blinds and windows. For individual control of 4 × 24 VDC motors via local push buttons, or in groups with IB+ Controlling Technology. External 24 V DC power supply required (see accessories).

#### Product benefits

- Upgradable for local controlling by radio.
- Local setting of an intermediate position and of user ergonomics.
- Configurable slats and turning speed for optimum user ergonomics.

#### Further features

- Output protected through current detection.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	III
Operating voltage	24 V DC
Operating temperature	0° C to + 45° C
Output voltage	24 V DC
Output current	up to max. 2.1 A per output

<b>4 DC Motor Controller</b>	Ref. 1 860 085
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For wall-mounted installation.

## Motor Controller

### 4 DC-E Motor Controller



For interior blinds, interior Venetian blinds and windows. For the individual controlling of 4 × 24 VDC/DC-E motors from the “Somfy Concept 25” series via local push buttons, or in groups with IB+ Controlling Technology.

#### Product benefits

- Easy installation: integrated 230 VAC power supply.
- In conjunction with the DC encoder motor and the CTS wind-up system, it allows particularly precise setting of the slats and exact positioning of the Venetian blinds.
- Configurable up and down speed (in combination with an animeo IB+ Building Controller).
- Upgradable for local control by radio.
- Local setting of an intermediate position and of user ergonomics.
- Configurable slats and rotation speed for optimum user ergonomics.

#### Further features

- Output protected through current detection.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	24 V DC
Output current	max. 0.5 A continuous current per output

**4 DC/DC-E Motor Controller WM** Ref. 1 860 087

For wall-mounted installation.

Dimensions (w × h × d)	210 × 90 × 61 mm
------------------------	------------------

**4 DC/DC-E Motor Controller DRM** Ref. 1 860 200

For DIN-rail installation, 12 SUs

## Accessories

### RTS Radio Receiver



Receiver to upgrade 4 AC, 4 DC or 4 DC/DC-E Motor Controller sdevices. Direct plug-in to Motor Controller.

Dimensions (w × h × d)	52 × 92 × 27 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	5 V DC, from animeo IB+ Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	433 MHz
Radio range	20 m through 2 walls

**RTS Radio module** Ref. 1 860 105

### EnOcean Receiver 868 MHz



An EnOcean radio receiver to interoperate with EnOcean switches PTM200, PTM210. Enables shading systems in buildings to be linked up with the battery-free, wireless EnOcean radio technology. Compatible with all animeo IB+ Motor Controllers.

#### Product benefits

- Refurbishment is especially economical since it can be performed in very little time and without installation work.
- Can be inserted into animeo IB+ Motor Controllers at any time.
- The receiver can be combined with the battery-free, wireless EnOcean radio switch module PTM200, PTM 210.

#### Further features

- Simple and intuitive learning process of EnOcean switch module PTM200, PTM210 with the animeo EnOcean Receiver.
- Individual and group control of motor outputs freely definable.
- Priority management between local and central commands directly on the device or through different operation modes.

Dimensions (w × h × d)	60 × 16 × 46 mm
Protection class	II
Supply voltage	5 V DC, from animeo IB+ Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	868 MHz
Radio range	20 m through 2 walls
Degree of protection	IP 20

**EnOcean Receiver 868 MHz** Ref. 1 860 220

## Accessories

### Power Supply DC



To supply power to the DC Motor Controller.

When using "Somfy Concept 25" motors, up to 2 Motor Controllers 4 DC can be supplied via one power supply (= 8 motors).  
Switchable also in parallel:  
2 x 4.5 A = 9 A.

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100%) 4.5 A (switch on duration 50%: 3 min. on, 3 min. off)

**Power Supply DC** Ref. 1 860 093

For wall-mounted and DIN-rail installation.

### Switch zone splitter



To create sub-groups within an IB+ zone.

Dimensions (w × h × d)	80 × 80 × 52 mm
Degree of protection housing	IP 65
Protection class	III

**Switch zone splitter** Ref. 1 810 392

For wall-mounted installation.

### Sensor Hub

NEW



A 4-ch isolated RS-485 active star wiring hub.

4 independent RS-485 output channels each equipped with an individual driver, and one RS-485 input channel. The data from a master to the input channel will simultaneously be forwarded to all the four output channels.

Dimensions (w × h × d)	72 × 122 × 35 mm
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**Sensor Hub** Ref. 9 018 147

For DIN-rail installation.

### Flush Mounting Box Touch Buco

NEW



Dimensions (w × h × d)	192 × 119 × 68 mm
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**Flush Mounting Box Touch Buco** Ref. 9 019 837

Flush-mounted installation.

### Surface Mounting Box Touch Buco

NEW



Dimensions (w × h × d)	254 × 180 × 90 mm
------------------------	-------------------

**Surface Mounting Box Touch Buco** Ref. 9 019 838

For wall-mounted installation.

# animeo IB+

## Accessories

### DIN-rail adapter



For installation on 35 mm DIN-rail to mount circuit board versions CD 1 × 1 P6, CD 2 × 1 P6, CD 1 × 4 P6, animeo 1 AC/2 AC Motor Controller PCB.

Dimensions (w × h × d)	70 × 105 × 23 mm
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<b>DIN-rail adapter</b>	Ref. 9 008 049
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For 35 mm DIN-rail, colour; black, 4 SUS

### IB/IB+ Repeater



Circuit board for signal amplification of IB/IB+ controlling technology signal with longer cable connection (from 1000 m).

Dimensions (w × h × d)	165 × 160 × 60 mm
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Degree of protection	IP 54
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Protection class	II
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Operating voltage	230 V AC
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Operating temperature	0° C to + 45° C
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<b>IB/IB+ Repeater</b>	Ref. 9 011 809
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For wall-mounted installation.

### IB+ Wiring Test Tool



To ensure that the system is properly wired.

<b>animeo IB+ Wiring Test Tool</b>	Ref. 1 810 793
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### WT Setting Tool



Programming tool to program different start-up time delays into the animeo IB+ Motor Controller for the use of WT motors.

#### Product benefits

- To program of start-up time delays directly into the animeo IB+ Motor Controller.
- Selection of start-up time delays of the following Somfy WT (electronic) motors: Oximo WT, Ilmo WT, Orea WT, J4WT, J4WT controlled by Telis Modulis remote control, Altea ZIP/BL.

<b>WT Setting Tool</b>	Ref. 1 811 242
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### RTS/EnOcean Programming Tool



Programming tool to assign remote control channels to the animeo RTS card (ref. 1 860 105) or the animeo EnOcean 868 MHz Receiver (ref. 1 860 220).

<b>RTS/EnOcean Programming Tool</b>	Ref. 1 810 879
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### USB IB+ Interface



USB IB+ Interface for direct connection of the computer to the Motor Controller.

<b>USB IB+ Interface</b>	Ref. 1 860 146
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## Local controls

### Smoove 1 RTS



1 channel on-wall radio transmitter to communicate with the RTS radio module.

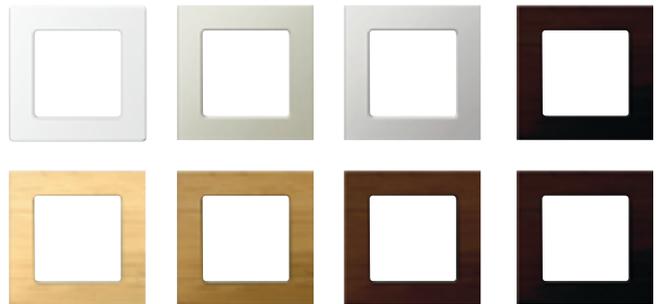
Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to + 60° C
Operational conditions	dry living rooms
Radio frequency	433.42 MHz

#### Smoove 1 RTS

• Pure shine	Ref. 1 810 873
• Black shine	Ref. 1 810 902
• Silver shine	Ref. 1 810 904
<b>Adapter disc for other switching programs</b>	Ref. 9 016 911

For wall-mounted installation.

### Smoove frames



#### Smoove frames

• Pure	Ref. 9 015 022
• Silver Lounge	Ref. 9 015 024
• Silver Mat	Ref. 9 015 025
• Black	Ref. 9 015 023
• Light Bamboo - wood finish	Ref. 9 015 027
• Ambergis Bamboo - wood finish	Ref. 9 015 026
• Cherry - wood finish	Ref. 9 015 236
• Walnut - wood finish	Ref. 9 015 237
• Double frame pure	Ref. 9 015 238

### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable Central Control or group operability.

<b>Smoove IB Origin</b>	Ref. 1 811 272
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For wall-mounted installation.

### Smoove 1 RTS Origin



Manual control of several motors over RTS. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

<b>Smoove 1 RTS Origin</b>	Ref. 1 811 218
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## Local controls

### Telis 1 RTS



Pure Silver Lounge Patio

1 channel handheld radio transmitter, control of one or several motors per radio.

Telis 1 RTS = 1 channel: single or group operation possible.

#### Telis 1 RTS

• Pure	Ref. 1 810 630
• Silver	Ref. 1 810 637
• Lounge	Ref. 1 810 649
• Patio	Ref. 1 810 642

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 1 Modulis RTS



Pure Silver Lounge

1 channel handheld radio transmitter, manual control of one or several Venetian blind motors per radio.

Comfortable manual alignment of the slats using the scroll wheel.

#### Telis 1 Modulis RTS

• Pure	Ref. 1 810 974
• Silver	Ref. 1 810 975
• Lounge	Ref. 1 810 976

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 RTS



Pure Silver Lounge Patio

5 channel handheld radio transmitter, manual control of one or several motors per radio.

Telis 4 RTS = 5 channels: single or group operation possible.

#### Telis 4 RTS

• Pure	Ref. 1 810 631
• Silver	Ref. 1 810 638
• Lounge	Ref. 1 810 651
• Patio	Ref. 1 810 644

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 Modulis RTS



Pure Silver Lounge

5 channel handheld radio transmitter, manual control of one or several Venetian blind motors per radio.

Comfortable manual alignment of the slats using the scroll wheel.

Telis 4 Modulis RTS = 5 channels: single or group operation possible.

#### Telis 4 Modulis RTS

• Pure	Ref. 1 810 765
• Silver	Ref. 1 810 663
• Lounge	Ref. 1 810 664

Scope of delivery: handheld transmitter including wall brackets and battery.

# animeo IB+

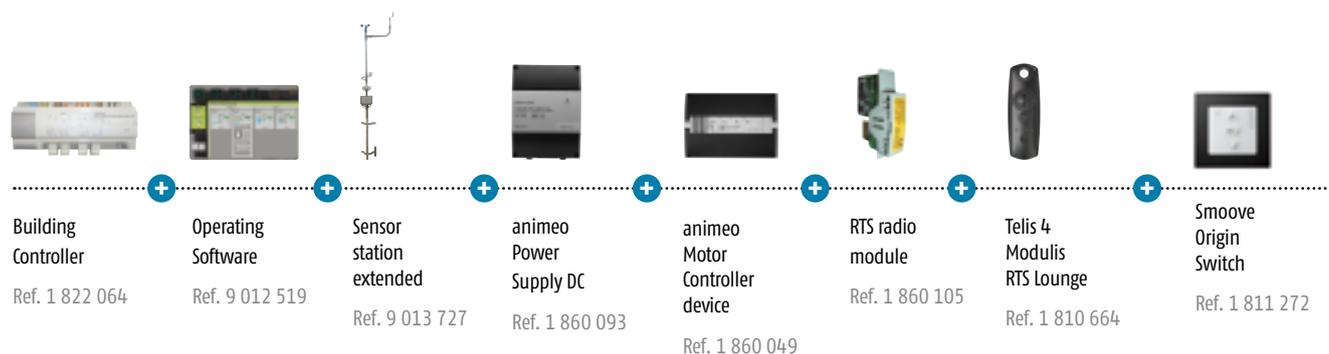
## Project example

### Functionality required and specified by the building owner

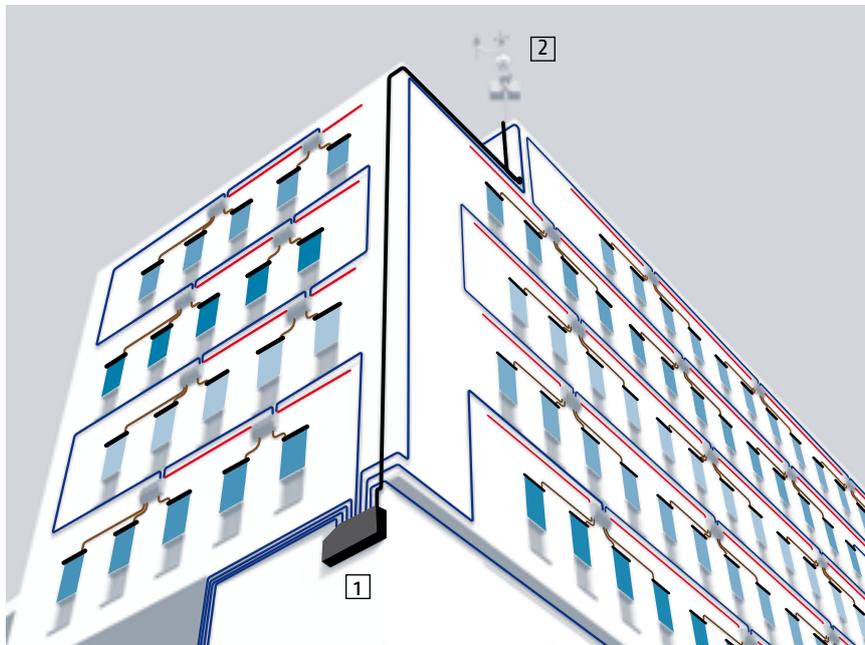
- Up to 8 separate façade zones are to be controlled
- Ergonomic PC software for the user interface
- Exterior Venetian blinds except for the ground floor to be equipped with roller shutters (security)
- Local control through Somfy RTS technology and EnOcean switches



## Products installed



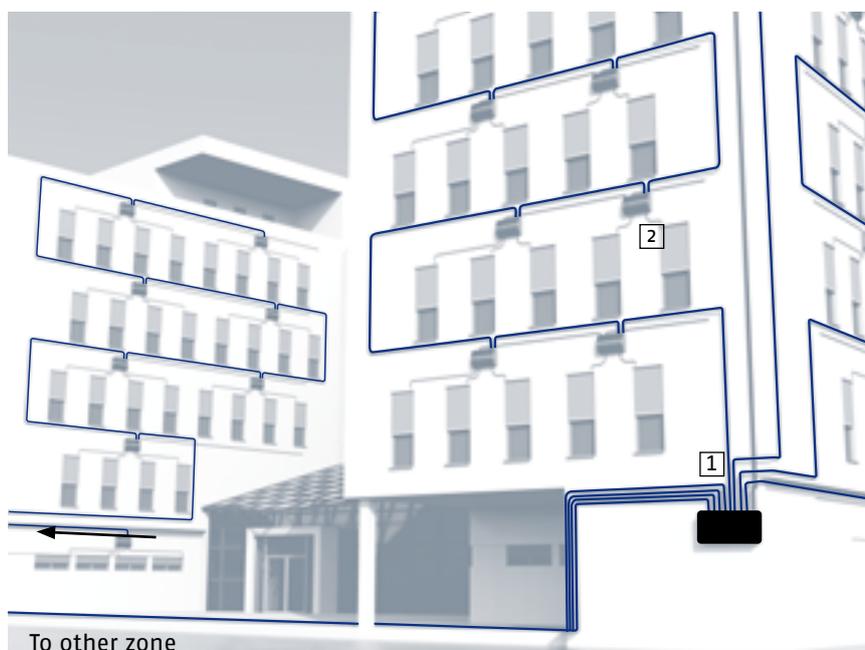
## Installation details



The animeo IB+ Building Controller enables automation of up to 8 zones.

The Sensor Station is directly linked to the Building Controller and each zone is separately managed depending on the weather and other parameters to be defined.

1. animeo IB+ Building Controller
2. Sensor Station



Each Motor Controller for the same zone is connected to the same IB+ network via the animeo IB+ Building Controller.

1. animeo IB+ Building Controller
2. animeo IB+ Motor Controller

## Case study

# SkyLabs Heidelberg – Germany



## Reasons to use animeo IB+

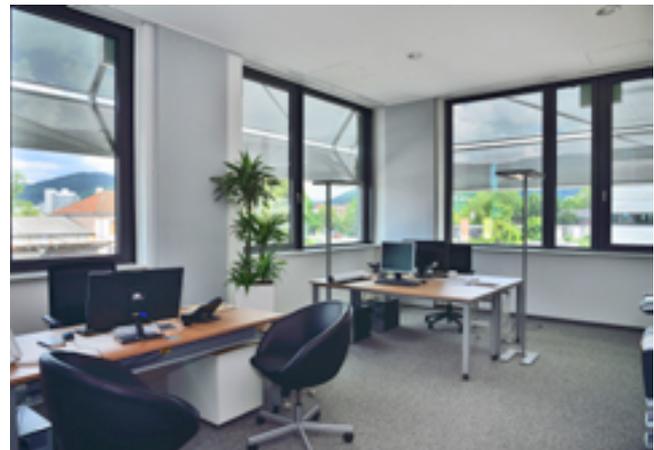
animeo IB+ was the only solution on the market to satisfy the requirements for handling the shutters in terms of specific weather conditions. Three protection functions were implemented – wind protection, snow and ice protection and a security function. High wind loads start the wind protection function: the shutters close. The snow and ice function protects the shutters from damage by closing every 2 hours to avoid high snow loads on the shutters. In case of smoke or fire the shutters open to give the fire and rescue service free entry to the building. Equipped with sensor stations on the roofs of the separate buildings, all relevant values are collected and transferred to the sun control unit.

The sun protection technology in the SkyLabs building is a good example how to harmonize demands on visual appearance of a building with the technical requirements. With animeo IB+ a unique façade construction as well as requirements on user comfort and energy consumption have been taken into account.

## Initial Brief

The SkyLabs building represents a landmark within the conceptual design of the "Bahnstadt" – a new quarter in Heidelberg. The "Bahnstadt" is both the biggest urban development project and the biggest quarter in Europe using the passive house standard. Besides this environmental requirement the flexible creation of approximately 19,500 m<sup>2</sup> rental space was an important criterion, allowing tenants to use it according to their own requirements.

The sun protection elements form an important feature in the design of the building's façade. More than 600 folding shutters on the outer skin of the building provide a very special three-dimensionality either opened or closed, creating a unified picture and wholeness of the building. The shutters are translucent and consist of perforated plating. Even when closed, natural light can penetrate into the interior without limiting the user's visibility and it is still possible to see the outside environment. This transparency makes the rooms feel spacious and likewise increases the level of working comfort.



## Technical information

- animeo IB+ system
- 600 motors
- 6 Building Controller 8-zones
- 40 animeo Motor Controller 4 AC WM
- 563 animeo IB+ Output Converter
- 3 weather stations
- 6 Inside Sensor Boxes

NEW

# animeo IP/io

- System topology
- Benefits
- Products
- Project example
- Case study



# animeo IP/io

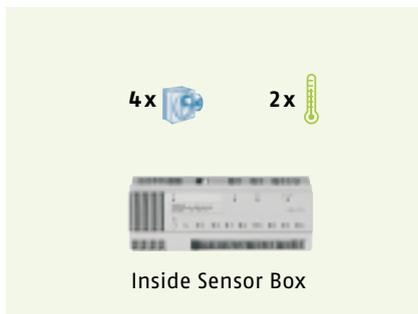
Dedicated to the refurbishment of small and medium size buildings, animeo IP/io is the wireless solution that makes it easy to manage your commercial sector sites. This solution is especially dedicated to exterior screens.

Thanks to minimal wiring and plug and play installation, animeo IP/io reduces wiring mistakes.

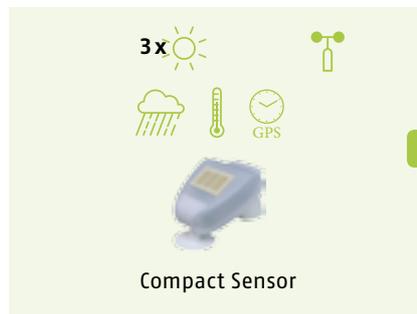
An intuitive user interface allows simplified commissioning, building management and technical support, featuring drag-and-drop zone creation, motor discovery and at-a-glance system status updates.

## System topology

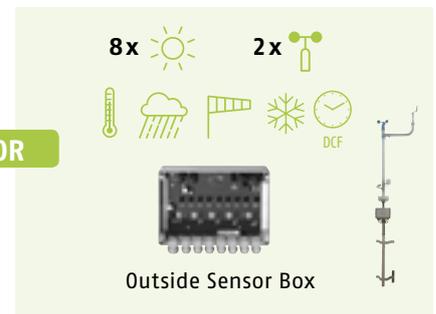
### Inside sensors (optional)\*



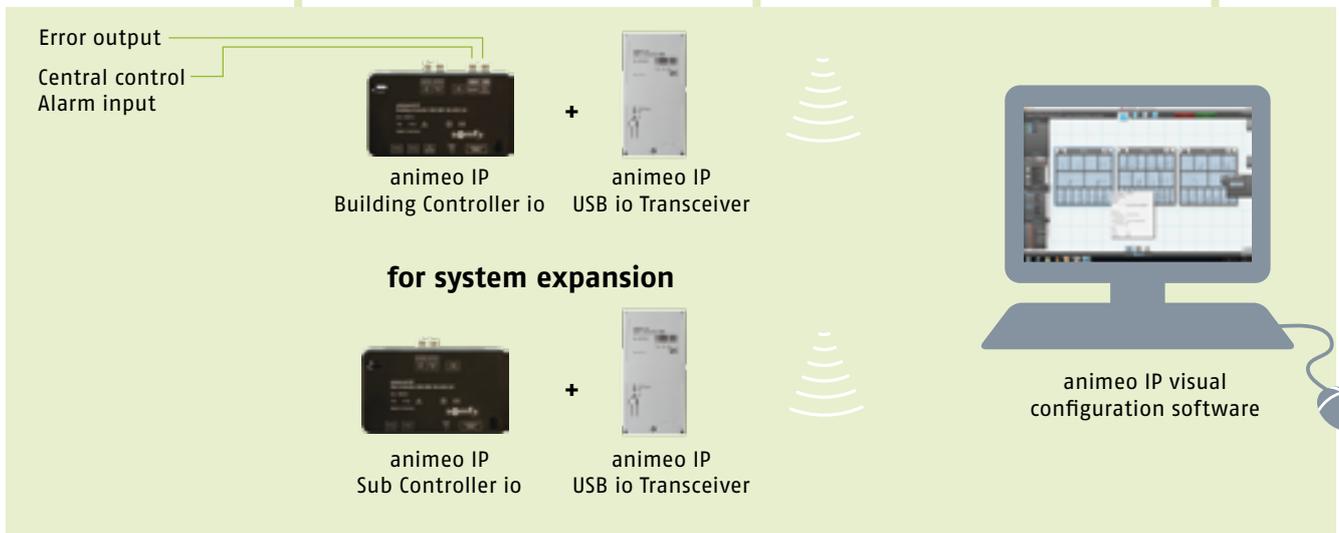
### Outside sensors (optional)\*



### Outside sensors (optional)\*



### Building Controllers



### Operating options

### Radio motors



### Compatible with radio local control and web remote



\* Per Building Controller/Sub Controller

# animeo IP/io

## All benefits at a glance

### Real and Astronomic Timed Events

- With animeo IP's timed events feature, schedules can be created to keep building's energy efficient based on certain times of day. Creating timed events around periods of high occupancy (between 8:00 AM and 6:00 PM, Monday to Friday) and low occupancy (weekends, holidays) ensures the building is running as efficiently as possible.



### Control Versatility

- Wireless controls and virtual keypads provide occupants with control over nearby window coverings. animeo IP can override manual occupant commands during specific time periods (e.g. east façade from 8:00 AM – 12:00 PM) to keep the building running as efficiently as possible, providing just the right balance of manual and automated control.



Facility Manager View



Web remote



Smoove io



Situo io

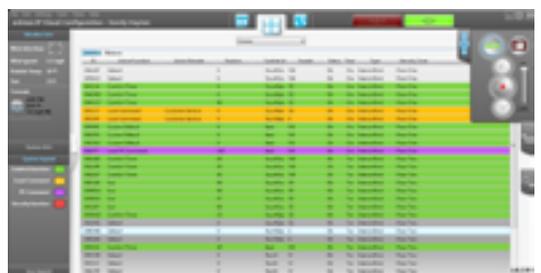
### Sun Tracking

- Automates natural light management based on the sun's position and façade orientation to minimize glare and maximize the opportunity for daylighting.



### Facility Management

- animeo IP/io technology provides bi-directional status reporting of window covering positions. With this information, animeo IP exports system status snapshots in convenient graph or table form. Quickly see how and why shades were adjusted with simple color codes for timed events, occupant actions or building overrides. Facility managers can also receive systems alerts via email.



# animeo IP/io

## Building and Sub Controller

NEW

### Building Controller



The IP Building Controller is an integrated central hardware and software device for animeo IP/io installations. It provides dynamic solar management by directly controlling Somfy-motorized window coverings and climate information given by a real-time weather station.

#### Product benefits

- The IP Building Controller provides an intuitive graphical user interface for simple programming, commissioning, operational and system status.
- Automatic discovery of blinds, sensors and local control points.
- No zone limitation; a single window can be a zone.
- Allows configuration and binding of web remotes.
- A system with a Building Controller can control max. 200 motors.
- One Building Controller can connect to 1 x Compact Sensor or 1 x Outside Sensor Box and 2 x Inside Sensor Box.
- Optimised energy savings in conjunction with a wide range of functions: cooling, heating.
- Enhanced operating mode: Increased, room-based user comfort thanks to the suppression of centralised non-safety functions (e.g. sun function) as soon as local controls are used. The system is switched back into automatic mode at freely definable times each day.

#### Further features

- For larger installations, the IP Building Controller's capacity can be expanded with the addition of an animeo IP Sub Controller.
- RJ45 and spring clamp connectors in case of false connection.
- Suitable for wall-mounting and DIN-rail installation.
- The separation of the Sensor Interface (Outside Sensor Box), which is normally mounted outside, and the control center (Building Controller), which is normally mounted inside, enables extremely cost-effective lightning protection for the system.
- Communication between the Outside Sensor Box and the Building Controller is monitored.
- Extensive yet clear selection of functions and parameters which are specially tailored to the type of end product to be controlled (screens, blinds, roller shutters).
- Sun function with configurable threshold values, delays, position, angled orientation for Venetian blinds, freely defined sensor assignment for each zone.
- Wind safety function in combination with wind direction: to increase the lifetime of the blind elements, they can be moved into a safety

position if a certain wind force is reached and if the wind direction is such that the specific zone is affected.

- The blind elements are only moved into the safety position if there are strong winds (gale warning).
- Rain and snow safety function with configurable time delays, both for each zone.

Housing Dimensions (w × h × d)	100 x 175 x 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100 - 240 V AC / 50/60 Hz
Operating temperature	0° C to +45° C

<b>animeo IP/io Building Controller</b>	Ref. 1822314
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NEW

### Sub Controller



The IP Sub Controller expands animeo IP/io installations. An IP Building Controller is essential for integration of an IP Sub Controller. It provides dynamic solar management by directly controlling Somfy-motorized window coverings and climate information given by a real-time weather station.

#### Product benefits

- The IP Sub Controller utilizes the IP Building Controller's integrated router to interface over an IP backbone to provide a stable connection between all appliances.
- RJ45 and spring clamp connectors for false prove connections.
- Suitable for wall-mounting and DIN-rail installation.
- One Sub Controller can connect to 1 x Compact Sensor or 1 x Outside Sensor Box and 2 x Inside Sensor Box.

#### Further features

- Allows expansion of the installation and the integration of additional blinds and local control points.
- The IP Sub Controller integrates additional sensors on the real-time weather station.
- Integrated IP switch for simplified connectivity of the additional IP Sub Controllers (pass through).

Housing Dimensions (w × h × d)	100 x 175 x 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100-240 V AC / 50/60 Hz
Operating temperature	0° C to +45° C

<b>animeo IP/io Sub Controller</b>	Ref. 1 860 201
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# animeo IP/io

## Transceiver

### USB io Transceiver

**NEW**



The use of the USB io Transceiver is mandatory with every animeo IP/io Building and Sub Controller. The transceiver establishes communication from the IP Building Controller/Sub Controller to the io motors and io local control points.

#### Product benefits

- Plug and play connection through USB to the IP Building Controller and IP Sub Controller.
- Delivered with pre-installed USB cable.
- Suitable for wall mounted and DIN-rail installations.

#### Further features

- LED display of sent and received io radio signals.
- Scans 3 frequencies between 868 and 870 MHz and communicates over the most reliable transmission.

Housing Dimensions (w × h × d)	90 x 180 x 45 mm
Degree of protection	IP 20
Protection class	III
Supply voltage	5 V DC via USB 2.0
Operating temperature	0° C to +45° C

<b>USB io Transceiver</b>	Ref. 9 018 682
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## Sensors and accessories

### Compact Sensor



The complete weather station in a small format. 3 x sun, 1 x wind, 1 x outside temperature, 1 x rain, GPS receiver. Additional requirements: 24 V DC power supply.

#### Product benefits

- Wiring made easy as all sensors are integrated in the device.
- Monitored communication between Building Controller, Sub Controller and Compact Sensor.

#### Further features

- Integrated sensors:
- Three sun sensors in fixed direction 90° (east), 180° (south) and 270° (west).
  - Wind speed sensor without moving parts.
  - Outside temperature sensor.
  - Heated rain sensor.
  - GPS receiver for time synchronization.
  - Bracket for wall or post mounting.

Dimensions (w × h × d)	96 × 77 × 118 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V DC ± 10%
Operating temperature	-25° C to +50° C

<b>animeo IB+ Compact Sensor</b>	Ref. 9 015 047
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# animeo IP/IO

## Sensors and accessories

### Outside Sensor Box



The Outside Sensor Box is the interface between the weather station and the Building Controller or Sub Controller. All measurement values are evaluated here and sent to the Building Controller. It requires an external 24 V AC/DC power supply.

#### Product benefits

- All sensors incl. Outside Sensor Box can be fixed to the Sensor Station mast.
- Up to 8 sun sensors, 2 wind sensors, 1 wind direction sensor, 1 rain sensor, 1 outside temperature sensor can be connected to the Outside Sensor Box.

Dimensions (w × h × d)	207 × 255 × 90 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V AC / DC
Operating temperature	- 30° C to +70° C

<b>Outside Sensor Box</b>	Ref. 9 001 606
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For wall-mounted installation.

### Power Supply DRM 24 V 1.5 A



To supply the Outside Sensor Box (without heated sensors) or the animeo IB+ Compact Sensor.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>Power Supply DRM 24 V DC 1.5 A</b>	Ref. 9 017 611
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For Din-rail installation.

### animeo Power Supply DC



To supply the Outside Sensor Box (with heated sensors).

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100 %) 4.5 A (switch on duration 50 %: 3 min on, 3 min off)

<b>animeo Power Supply DC</b>	Ref. 1 860 093
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For wall-mounted and DIN-rail installation.

### Lightning protection



To protect the controls from lightning. Used in conjunction with the Outside Sensor Box or Compact Sensor.

<b>Electronic lightning protection power supply</b>	Ref. 9 001 629
<b>Electronic lightning protection RS 485</b>	Ref. 9 001 630

### Wind Sensor



To measure wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, ø 240 mm max. ø-mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm <sup>2</sup>

<b>Wind Sensor</b>	Ref. 9 001 608
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## Sensors and accessories

### Heated Wind Sensor



To measure wind speed in connection with the Outside Sensor Box. Recommended for geographical areas with severe winter conditions.

#### Product benefits

- The turning parts can not get stuck due to ice or snow thanks to integrated thermostat controlled heating.
- Provides reliable and precise wind speed measurement during the winter period.
- High resilience and durability by precision bearing.

Dimensions	Height 190 mm, $\varnothing$ 240 mm max. $\varnothing$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 x 1.5 mm <sup>2</sup>

<b>Heated Wind Sensor</b>	Ref. 9 140 180
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### Wind Direction Sensor



To measure wind direction in connection with the Outside Sensor Box.

#### Product benefits

- Minimises the number of individual wind speed sensors installed to improve the façade aesthetics.
- Very good starting value by magnetic contact-free measure principle.
- Winter and offshore usable.
- High resilience and durability by precision bearing.

Dimensions	Height 303 mm, Arrow length 515 mm, max. $\varnothing$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 x 1.5 mm <sup>2</sup>

<b>Wind Direction Sensor</b>	Ref. 9 013 807
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### Outside Temperature Sensor



To measure exterior temperatures in conjunction with the Outside Sensor Box.

#### Product benefits

- Precise measurement of exterior temperature values which can be displayed in °C or °F in the animeo building control solutions.
- Protective housing to prevent measurements influenced by spiders and birds.
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm, $\varnothing$ 115 mm
Degree of protection	IP 65
Wiring recommendations	2 x 0.8 mm

<b>Outside Temperature Sensor</b>	Ref. 9 001 611
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### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque and UV stabilized housing. 24 V DC and 230 V AC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard 50 mm diameter mast.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 x 0.75 mm<sup>2</sup>).

Dimensions (w x h x d)	115 x 100 x 85 mm
Degree of protection	IP 54
Wiring recommendations	5 x 1.5 mm <sup>2</sup>

<b>Rain Sensor Ondeis 24 V DC</b>	Ref. 9 016 344
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<b>Rain Sensor Ondeis 230 V AC</b>	Ref. 9 016 345
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# animeo IP/IO

## Sensors and accessories

### Sun Sensor



Sun sensor to measure luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for save and solid wiring to the Outside Sensor Box.

Dimensions (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 65
Protection class	III
Wiring recommendations	2 × 0.8 mm

<b>Sun Sensor without mounting bracket</b>	Ref. 9 050 100
<b>Mounting bracket for Sun Sensor</b>	Ref. 9 127 888
<b>Complete pack</b>	Ref. 9 154 043

### Sensor Station



The Sensor Station consists of an aluminium mast with pre-mounted and pre-wired Outside Sensor Box, 4 sun sensors, 1 wind sensor and 1 outside temperature sensor. The Sensor Station can be equipped with additional sensors such as sun sensors and a rain sensor. Wall brackets included.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions / mast height	3200 mm
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<b>Sensor Station</b>	Ref. 9 013 726
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### Sensor Station extended



The sensor station extended consists of an aluminum mast with a pre-mounted and pre-wired Outside Sensor Box, 8 sun sensors, 1 wind speed sensor, 1 wind direction sensor, a rain sensor and an outside temperature sensor.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for precise façade orientation.

Dimensions / mast height	3200 mm
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<b>Sensor Station extended</b>	Ref. 9 013 727
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### Mast without sensors



Individual mast for sun, wind and rain sensors.

Dimensions/mast height	3 200 mm
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<b>Mast without sensors</b>	Ref. 9 001 394
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# animeo IP/io

## Sensors and accessories

### Mast extended without sensors



Mast extended without sensors and Outside Sensor Box. Incl. accessories for wind direction sensor.

Dimensions/mast height	3 200 mm
<b>Mast extended without sensors</b>	Ref. 9 014 302

### Roof mounting



To roof-mount the Sensor Station. Stainless steel.

<b>Roof mounting</b>	Ref. 9 014 300
<b>Strain connection for roof mounting only</b>	Ref. 9 014 303

### Inside Sensor Box



For connection to external push buttons or key switches per zone and up to 2 Inside Temperature Sensors.

#### Product benefits

- Window cleaners need no access to the complete user interface (animeo IP Visual Configuration Software).
- Inside Temperature Sensors enable easy extendability of the system's energy saving options.

Dimensions (w × h × d)	210 × 90 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to +45° C

<b>Inside Sensor Box</b>	Ref. 9 001 614
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For DIN-rail installation, 12 SUs.

### Housing for Inside Temperature Sensor



To install inside temperature sensor.

Dimensions (w × h × d)	75 × 75 × 25 mm
<b>Housing for Inside Temperature Sensor</b>	Ref. 9 008 045

### Inside Temperature Sensor



To measure the inside temperature.

<b>Inside Temperature Sensor</b>	Ref. 9 008 044
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### BMS Interface

**NEW**



Provides communication between Building Management Systems and Somfy motorized shading systems. Compatible with Radio Technology Systems (RTS), Stand-alone SDN, animeo IP/io and animeo IP/RS485 shade systems.

#### Product benefits

- RJ45 connector for false prove connections
- LED indicators providing information about the status of the product, the normal operation or a system error.
- Programmable through user-friendly interface.
- Integration capabilities: Modbus, BACnet MS/TP, BACnet IP.
- Auto device discovery for animeo IP.

Dimensions (w × h × d)	115 × 92 × 41 mm
Degree of protection	IP 20
Operating voltage	24 V DC
Operating temperature	0° C to +50° C

<b>BMS Interface</b>	Ref. 1 822 558
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# animeo IP/io

## Local wall controls

### Smoove 1 io



1 channel on-wall radio transmitter.

Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to +60° C
Operating conditions	Dry living rooms
Radio frequency	865.95 MHz

<b>Pure shine</b>	Ref. 1 800 445
<b>Black shine</b>	Ref. 1 811 003
<b>Silver shine</b>	Ref. 1 811 007
<b>Adapter disk for other switching programs</b>	Ref. 9 016 911

### Smoove Origin io



1 channel on-wall radio transmitter.

Dimensions (w × h × d)	50 × 50 × 50 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to +60° C
Operating conditions	Dry living rooms
Radio frequency	865.95 MHz

<b>Pure shine</b>	Ref. 1 811 066
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### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable central control or group operability.

<b>Smoove IB Origin</b>	Ref. 1 811 272
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### Smoove frames



<b>Pure</b>	Ref. 9 015 022
<b>Silver Lounge</b>	Ref. 9 015 024
<b>Silver Mat</b>	Ref. 9 015 025
<b>Black</b>	Ref. 9 015 023
<b>Light Bamboo - wood-effect</b>	Ref. 9 015 027
<b>Ambergris Bamboo - wood-effect</b>	Ref. 9 015 026
<b>Cherry - wood-effect</b>	Ref. 9 015 236
<b>Walnut - wood-effect</b>	Ref. 9 015 237
<b>Double frame Pure</b>	Ref. 9 015 238

# animeo IP/io

## Local remote controls

### Situo Mobile io



1 channel radio remote transmitter.

Dimensions (w × h × d)	45 × 148 × 20 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to +60° C
Operating conditions	Dry living rooms
Radio frequency	865.95 MHz
<b>Pure</b>	Ref. 1 800 112
<b>Pearl</b>	Ref. 1 800 113
<b>Silver</b>	Ref. 1 800 114

## Web remote control

**NEW**

### Web remote control



Manual user control. Allows control of one blind or a group of blinds via a web page from a user's computer or a smart-phone.

#### Product benefits

- Applicable at any time
- Can easily be adapted to the user's environment

#### Further features

- Controls Up/Down position
- Controls slat position
- Displays of blind position
- Overrides automatic functions

animeo IP web remote license key	Ref. 9 019 244
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# animeo IP/io

## Motors

### Oximo io



The universal io solution for roller shutters. Three end limit setting modes: automatic, semi-automatic and manual.

Type of head	Star
Diameter	50 mm
Degree of protection	IP 44
Protection class	I
Supply voltage	230 V AC
Operating temperature	20%: 20 to 70°C / 80%: 10 to 40°C
Speed with load	17 rpm
Limit Switch Unit	Bi-directional radio

<b>Oximo io 6/17 VVF 3M BAR</b>	Ref. 1 032 700
<b>Oximo io 10/17 VVF 3M BAR</b>	Ref. 1 037 689
<b>Oximo io 20/17 VVF 3M BAR</b>	Ref. 1 041 626
<b>Oximo io 15/17 VVF 3M UNIT</b>	Ref. 1 039 589
<b>Oximo io 30/17 VVF 3M BAR</b>	Ref. 1 045 517
<b>Oximo io 40/17 VVF 3M BAR</b>	Ref. 1 049 608

The motors listed above are a selection from the full motor range. For more details, please contact your local Somfy partner.

### Sunea io



The all-in-one io vertical screen motor with advanced features. Adjustable electronic stop detection.

Type of head	Star or round
Diameter	50 or 60 mm
Degree of protection	IP 44
Protection class	I
Supply voltage	230 V AC
Operating temperature	20%: 20 to 70°C / 80%: 10 to 40°C
Speed with load	17 rpm
Limit Switch Unit	Electronic

<b>Sunea 50 io 35/17 VVF 3M BAR</b>	Ref. 1 116 230
<b>Sunea 50 io 35/17 VVF 3M PACK100</b>	Ref. 1 116 247
<b>Sunea 50 io 50/12 VVF 3M BAR</b>	Ref. 1 118 171
<b>Sunea 50 io 50/12 VVF 3M PACK100</b>	Ref. 1 118 185
<b>Sunea 60 io 70/17 VVF3M UNIT</b>	Ref. 1 182 211

The motors listed above are a selection from the full motor range. For more details, please contact your local Somfy partner.

### Sunilus io



The entry-level io motor dedicated to awnings and vertical screens with no cassette.

Type of head	Star
Diameter	50 mm
Degree of protection	IP 44
Protection class	I
Supply voltage	230 V AC
Operating temperature	20%: 20 to 70°C / 80%: 10 to 40°C
Speed with load	17 rpm
Limit Switch Unit	Electronic

<b>Sunilus io 6/17</b>	Ref. 1 033 312
<b>Sunilus io 10/17</b>	Ref. 1 038 083
<b>Sunilus io 15/17</b>	Ref. 1 040 006
<b>Sunilus SCR S RH IO 6/32</b>	Ref. 1 033 132
<b>Sunilus SCR io 10/17 VVF 3M BAR</b>	Ref. 1 037 935
<b>Sunilus 50 io 35/17 VVF 3M BAR</b>	Ref. 1 047 344
<b>Sunilus 50 io 40/17 VVF 3M BAR</b>	Ref. 1 049 774
<b>Sunilus 50 io 50/12 VVF 3M BAR</b>	Ref. 1 051 407

The motors listed above are a selection from the full motor range. For more details, please contact your local Somfy partner.

# animeo IP/io

## Motors

### Sunea Screen io



The io motor to suit all types of vertical screens.

Type of head	Star
Diameter	50 mm
Degree of protection	IP 44
Protection class	I
Supply voltage	230 V AC
Operating temperature	20%: 20 to 70°C / 80%: 10 to 40°C
Speed with load	17 rpm
Limit Switch Unit	Electronic

<b>Sunea SCR io 6/17 VVF 5M UNIT</b>	Ref. 1 110 202
<b>Sunea SCR io 6/17 VVF 10M BAR</b>	Ref. 1 110 243
<b>Sunea SCR io 10/17 IN BULK</b>	Ref. 1 111 155
<b>Sunea SCR io 10/32 VVF 5M BAR</b>	Ref. 1 111 150
<b>Sunea SCR io 15/32 RH VVF5M BAR</b>	Ref. 1 112 244

The motors listed above are a selection from the full motor range. For more details, please contact your local Somfy partner.

### J4 io



io motor dedicated to exterior Venetian Blinds. The shortest EVB motor available on the market. Consisting of a J4 io motor and a J4 io captive plate.

Degree of protection	IP 54 for motor - IP 67 for plate
Protection class	I
Supply voltage	230 V AC
Operating temperature	20% -20 to 70°C -80% -10 to 40°C
Speed with load	24 rpm
Stand-by consumption motor + plate	0.85 W
Limit Switch Unit	Electronic
End-limits	Preset & adjustable up & down end-limit

<b>J406 6/24 io</b>	Ref. 1 210 363
<b>J410 10/24 io</b>	Ref. 1 210 364
<b>J418 18/24 io</b>	Ref. 1 210 365

⚠ Step/Stop functionality using local controls for slat orientation is limited! A short step/stop command for slat orientation can only be executed by pushing an up or down command and then a stop command immediately afterwards. Defined, precise positions for slat orientation can be executed through the web remote.

# animeo IP/io

## Project example

### Functionality required and specified by building owners

- Requirements for minimum cabling and installation because the building is in use.
- Management per window, group or façade for exterior screens.
- Local control points using radio remote or web remote controls.
- Configuration and us can be monitored and modified remotely.  
The exact position and status of the exterior screens should be visible at any time.



## Products installed

					
+	+	+	+	+	+
<p>animeo IP Building Controller io Ref. 1 822 314</p>	<p>animeo IP Sub Controller io Ref. 1 860 201</p>	<p>Sensor Station Extended Ref. 9 013 727</p>	<p>animeo IP USB io transceiver Ref. 9 018 682</p>	<p>Situio Mobile io Ref. 1 800 112</p>	<p>Web remote Ref. 9 019 244</p>

## Automatic functions

- Wind safety to protect the exterior screens from damage. Also wind direction dependent.
- Sun automatic including sun tracking to prevent overheating of the building and provide glare control and comfort for the occupants.
- Possibility for the local user to override automatic functions at any time unless safety functions are active.

## Installation details



The animeo IP/io Building Controllers and Sub Controllers communicate bi-directionally with the motors through the USB/io Transceiver.

The local radio remote controls also communicate with the USB/io Transceiver.

The connections between motors and local control points are set-up through the animeo IP Visual Configuration Software.

The sensor station is directly linked to the animeo IP/io Building Controller. Each window, group or façade is managed separately depending on the weather conditions and the parameters defined.

1. Sensor Station Extended
2. animeo IP/io Building Controller + USB/io Transceiver
3. animeo IP/io Sub Controller + USB/io Transceiver
4. Maintenance through animeo IP Visual Configuration Software

**Case study****Rosorum Luxury residential care home Arnheim – Netherlands****Initial Brief**

This luxury residential care building comprises 20 apartments with 64 external screens to control glare and reduce solar heat gains through the glazing. The initial need was to have a central control combined with local controls to give occupants the upper hand over the automation, thereby offering them more comfort and flexibility. Wind protection was also required to avoid damage to the carrier product.

**Reasons to use animeo IP/io**

The particularity of the project was that installing any cables in the building was not an option. Consequently, animeo IP/io was the best solution. It is a wireless solution perfectly suited to renovation projects.

The Building Controller and the three Sub Controllers communicate directly with each motor by radio. The timer function is enabled on local controls to have a central control function for three hours and also in winter months.

The customers' requirements were met: no cables inside, no renovation and no disturbance for the occupants thanks to the choosing of animeo IP/io.

**Technical information**

- animeo IP/io system
- 1 animeo IP/io Building Controller
- 3 animeo IP/io Sub Controller
- 3 x Sun sensor
- 1 x Wind sensor
- 1 x Rain Sensor
- 64 exterior screens

NEW

# animeo IP/RS485

- System topology
- Benefits
- Products
- Project example
- Case study



# animeo IP/RS485

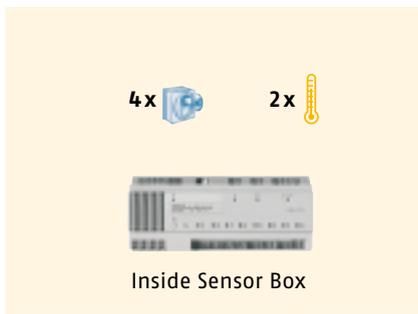
Dedicated to new medium to large buildings, animeo IP/RS485 is the digital solution that makes it easy to manage your sites.

Thanks to limited wiring and plug and play installation, animeo IP/RS485 reduces wiring errors.

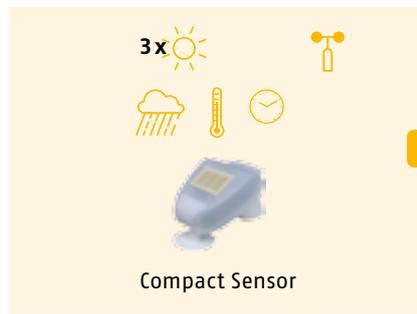
An intuitive user interface allows simplified commissioning, building management and technical support, featuring drag and drop zone creation, motor discovery and at-a-glance system status updates.

## System topology

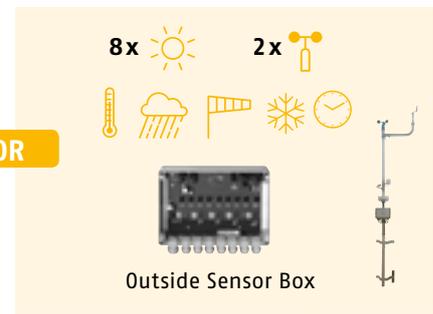
### Inside sensors (optional)\*



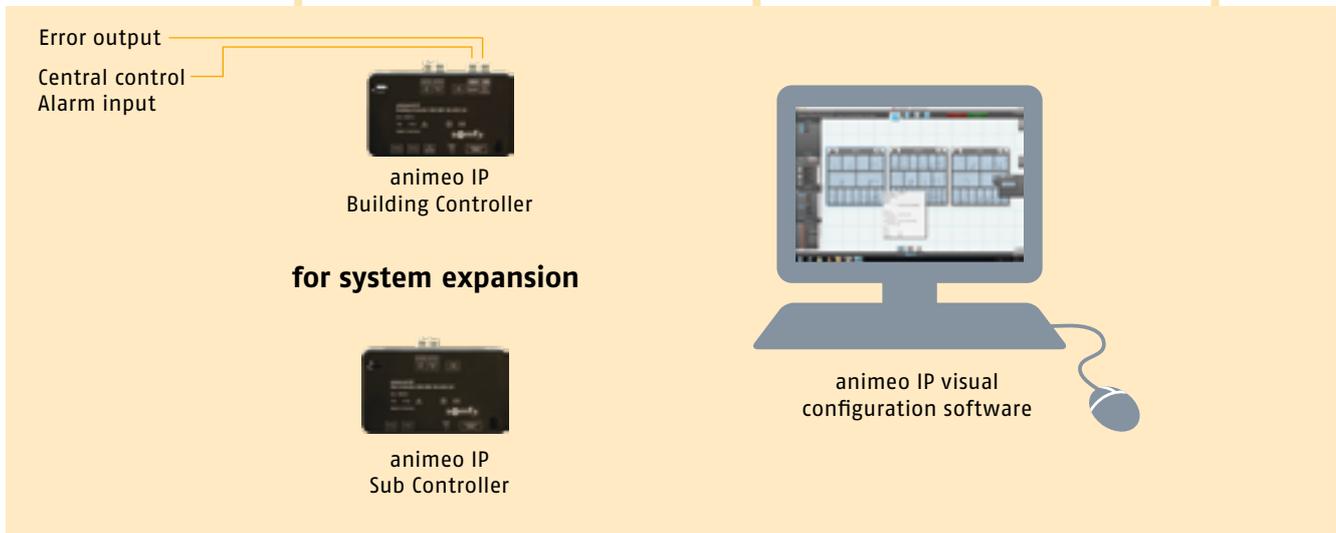
### Outside sensors (optional)\*



### Outside sensors (optional)\*



### Building Controllers

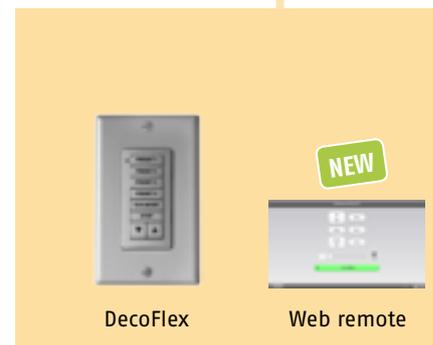


### Operating options

### RS485 motors



### Compatible with local control and web remote



\* Per Building Controller/Sub Controller

# animeo IP/RS485

## All benefits at a glance

### Real and Astronomic Timed Events

- With animeo IP's timed events feature, schedules can be created to keep buildings energy efficient based on certain times of day. Creating timed events around periods of high occupancy (between 8:00 AM and 6:00 PM, Monday to Friday) and low occupancy (weekends, holidays) ensures the building is running as efficiently as possible.



### Control Versatility

- Wall-mounted keypads, controls and virtual keypads give occupants control over nearby window coverings. animeo IP can override manual occupant commands during specific time periods (e.g. east façade from 8:00 AM – 12:00 PM) to keep the building running as efficiently as possible, providing just the right balance of manual and automated control.



Facility Manager View



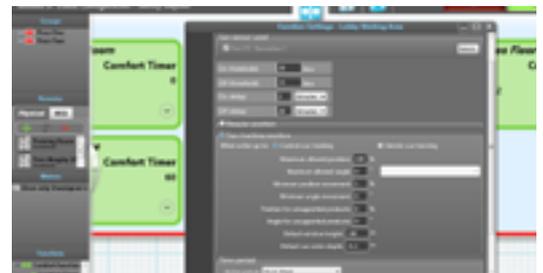
Web remote



DecoFlex

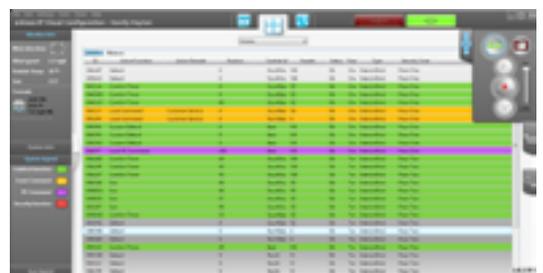
### Sun Tracking

- Automates natural light management based on the sun's position and façade direction to minimize glare and maximize the opportunity for daylighting.



### Facility Management

- animeo IP/RS485 technology provides bi-directional status reporting of window covering positions. With this information, animeo IP exports system status snapshots in convenient graph or table form. Quickly see how and why shades were adjusted with simple color codes for timed events, occupant actions or building overrides. Facility managers can also receive system alerts via email.



# animeo IP/RS485

## Building and Sub Controller

### Building Controller

NEW



The IP Building Controller is an integrated central hardware and software device for animeo IP/RS485 installations. It provides dynamic solar management by directly controlling Somfy-motorized window coverings and climate information given by a real-time weather station.

#### Product benefits

- The IP Building Controller features an intuitive graphical user interface for simple programming, commissioning, operational and system status.
- Automatic discovery of blinds, sensors and local control points.
- No zone limitation; a single window can be a zone.
- Allows configuration and binding of web remotes.
- A system with a Building Controller can control max. 2000 motors.
- One Building Controller can connect to 1 x Compact Sensor or 1 x Outside Sensor Box and 2 x Inside Sensor Box.
- Optimised energy savings in conjunction with a wide range of functions: cooling, heating.
- Enhanced operating mode: Increased, room-based user comfort thanks to the suppression of centralised non-safety functions (e.g. sun function) as soon as local controls are used. The system is switched back into automatic mode at freely definable times each day.

#### Further features

- For larger installations, the IP Building Controller's capacity can be expanded with the addition of an animeo IP Sub Controller (ref. 1860201).
- RJ45 and spring clamp connectors in case of false connection.
- Suitable for wall-mounting and DIN-rail installation.
- The separation of the Sensor Interface (Outside Sensor Box), which is normally mounted outside, and the control center (Building Controller), which is normally mounted inside, enables extremely cost-effective lightning protection for the system.
- Communication between the Outside Sensor Box and the Building Controller is monitored.
- Extensive yet clear selection of functions and parameters which are specially tailored to the type of end product to be controlled (Venetian blinds, blinds, roller shutters).
- Sun function with configurable threshold values, time delays, position, angled orientation for Venetian blinds, freely defined sensor assignment for each zone.
- Wind safety function in combination with wind direction: to increase the lifetime of the blind elements, they can be moved into a safety po-

sition if a certain wind force is reached and if the wind direction is such that the specific zone is affected.

- The blind elements are only moved into the safety position if there are strong winds (gale warning).
- Rain and snow safety function with configurable time delays, both for each zone.

Housing Dimensions (w × h × d)	100 x 175 x 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100 - 240 V AC / 50/60 Hz
Operating temperature	0° C to +45° C

<b>animeo IP/RS485 Building Controller</b>	Ref. 1822314
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### Sub Controller

NEW



The IP Sub Controller expands animeo IP/RS485 installations. An IP Building Controller is essential for integration of an IP Sub Controller. It provides dynamic solar management by directly controlling Somfy-motorized window coverings and climate information given by a real-time weather station.

#### Product benefits

- The IP Sub Controller utilizes the IP Building Controller's integrated router to interface over an IP backbone to provide a stable connection between all appliances.
- RJ45 and spring clamp connectors for false prove connections.
- Suitable for wall-mounting and DIN-rail installation.
- One Sub Controller can connect to 1 x Compact Sensor or 1 x Outside Sensor Box and 2 x Inside Sensor Box.

Housing Dimensions (w × h × d)	100 x 175 x 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100-240 V AC / 50/60 Hz
Operating temperature	0° C to +45° C

<b>animeo IP/io Sub Controller</b>	Ref. 1 860 201
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#### Further features

- Allows expansion of the installation and the integration of additional blinds and local control points.
- The IP Sub Controller integrates additional sensors on the real-time weather station.
- Integrated IP switch for simplified connectivity of the additional IP Sub Controllers (pass through).

# animeo IP/RS485

## Sensors and accessories

### Compact Sensor



The complete weather station in a small format. 3 x sun, 1 x wind, 1 x outside temperature, 1 x rain, . Additional requirements: 24 VDC power supply.

#### Product benefits

- Wiring made easy as all sensors are integrated in the device.
- Monitored communication between Building Controller, Sub Controller and Compact Sensor.

#### Further features

Integrated sensors:

- Three sun sensors in fixed direction 90° (east), 180° (south) and 270° (west).
- Wind speed sensor without moving parts.
- Outside temperature sensor.
- Heated rain sensor.
- Bracket for wall or post mounting.

Dimensions (w × h × d)	96 × 77 × 118 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V DC ± 10%
Operating temperature	-25° C to +50° C

<b>animeo IB+ Compact Sensor</b>	Ref. 9 015 047
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### Lightning protection



To protect the controls from lightning. Used in conjunction with the Outside Sensor Box or Compact Sensor.

<b>Electronic lightning protection power supply</b>	Ref. 9 001 629
<b>Electronic lightning protection RS 485</b>	Ref. 9 001 630

### Outside Sensor Box



The Outside Sensor Box is the interface between the weather station, the Building Controller or Sub Controller. All measurement values are evaluated here and sent to the Building Controller. It requires an external 24 V AC/DC power supply.

#### Product benefits

- All sensors incl. Outside Sensor Box can be fixed to the Sensor Station mast.
- Up to 8 sun sensors, 2 wind sensors, 1 wind direction sensor, 1 rain sensor, 1 outside temperature sensor as well as a DCF plug module can be connected to the Outside Sensor Box.

Dimensions (w × h × d)	207 × 255 × 90 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V AC / DC
Operating temperature	- 30° C to +70° C

<b>Outside Sensor Box</b>	Ref. 9 001 606
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For wall-mounted installation.

### Power Supply DRM 24 V 1.5 A



To supply the Outside Sensor Box (without heated sensors) or the animeo IB+ Compact Sensor.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>Power Supply DRM 24 V DC 1.5 A</b>	Ref. 9 017 611
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For Din-rail installation.

# animeo IP/RS485

## Sensors and accessories

### animeo Power Supply DC



To supply the Outside Sensor Box (with heated sensors).

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100 %) 4.5 A (switch on duration 50 %: 3 min on, 3 min off)

**animeo Power Supply DC** Ref. 1 860 093

For wall-mounted and DIN-rail installation.

### Wind Sensor



To measure wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, ø 240 mm max. ø-mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm <sup>2</sup>

**Wind Sensor** Ref. 9 001 608

### Heated Wind Sensor



To measure wind speed in connection with the Outside Sensor Box. Recommended for geographical areas with severe winter conditions.

#### Product benefits

- Rotating parts cannot stick due to ice or snow thanks to integrated thermostat controlled heating.
- Provides reliable and precise wind speed measurement during the winter period.
- High resilience and durability by precision bearing.

Dimensions	Height 190 mm, ø 240 mm max. ø-mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>

**Heated Wind Sensor** Ref. 9 140 180

### Wind Direction Sensor



To measure wind direction in connection with the Outside Sensor Box.

#### Product benefits

- Minimises the number of individual wind speed sensors installed to improve the façade aesthetics.
- Very good starting value by magnetic contact-free measure principle.
- Winter and offshore usable.
- High resilience and durability by precision bearing.

Dimensions	Height 303 mm, Arrow length 515 mm, max. ø-mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>

**Wind Direction Sensor** Ref. 9 013 807

# animeo IP/RS485

## Sensors and accessories

### Outside Temperature Sensor



To measure exterior temperatures in conjunction with the Outside Sensor Box.

#### Product benefits

- Precise measurement of exterior temperature values which can be displayed in °C or °F in the animeo building control solutions.
- Protective housing to prevent measurements influenced by spiders and birds.
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm, ø 115 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm
<b>Outside Temperature Sensor</b>	Ref. 9 001 611

### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque and UV stabilized housing. 24 V DC and 230 V AC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard 50 mm diameter mast.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 × 0.75 mm<sup>2</sup>).

Dimensions (w × h × d)	115 × 100 × 85 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>
<b>Rain Sensor Ondeis 24 V DC</b>	Ref. 9 016 344
<b>Rain Sensor Ondeis 230 V AC</b>	Ref. 9 016 345

### Sun Sensor



Sun sensor to measure luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for safe and robust wiring to the Outside Sensor Box.

Dimensions (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 65
Protection class	III
Wiring recommendations	2 × 0.8 mm
<b>Sun Sensor without mounting bracket</b>	Ref. 9 050 100
<b>Mounting bracket for Sun Sensor</b>	Ref. 9 127 888
<b>Complete pack</b>	Ref. 9 154 043

### Sensor Station



The Sensor Station consists of an aluminium mast with pre-mounted and pre-wired Outside Sensor Box, 4 sun sensors, 1 wind sensor and 1 outside temperature sensor. The Sensor Station can be equipped with additional sensors such as sun sensors and a rain sensor. Wall brackets included.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for precise façade orientation.

Dimensions / mast height	3200 mm
<b>Sensor Station</b>	Ref. 9 013 726

# animeo IP/RS485

## Sensors and accessories

### Sensor Station extended



The sensor station extended consists of an aluminum mast with a pre-mounted and pre-wired Outside Sensor Box, 8 sun sensors, 1 wind speed sensor, 1 wind direction sensor, a rain sensor and an outside temperature sensor.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for precise positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions / mast height	3200 mm
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<b>Sensor Station extended</b>	Ref. 9 013 727
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### Mast without sensors



Individual mast for sun, wind and rain sensors.

Dimensions/mast height	3 200 mm
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<b>Mast without sensors</b>	Ref. 9 014 301
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### Mast extended without sensors



Mast extended without sensors and Outside Sensor Box. Incl. accessories for wind direction sensor.

Dimensions/mast height	3 200 mm
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<b>Mast extended without sensors</b>	Ref. 9 014 302
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### Roof mounting



To roof-mount the Sensor Station. Stainless steel.

<b>Roof mounting</b>	Ref. 9 014 300
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<b>Strain connection for roof mounting only</b>	Ref. 9 014 303
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### Inside Sensor Box



For connection to external push buttons or key switches per zone and up to 2 Inside Temperature Sensors.

#### Product benefits

- Window cleaners need no access to the complete user interface (animeo IP Visual Configuration Software).
- Inside Temperature Sensors enable easy extendability of the system's energy saving options.

Dimensions (w × h × d)	210 × 90 × 61 mm
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Degree of protection	IP 20
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Protection class	II
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Operating voltage	230 V AC
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Operating temperature	0° C to +45° C
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<b>Inside Sensor Box</b>	Ref. 9 001 614
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For DIN-rail installation, 12 SUs.

# animeo IP/RS485

## Sensors and accessories

### Housing for Inside Temperature Sensor



To install inside temperature sensor.

Dimensions (w × h × d)	75 × 75 × 25 mm
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Housing for Inside Temperature Sensor	Ref. 9 008 045
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### Inside Temperature Sensor



To measure the inside temperature.

Inside Temperature Sensor	Ref. 9 008 044
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### RS485 Network Power Supply

NEW



A component designed to power RS485 Somfy Digital Network devices via the RS485 network segment. Required for the integration of the Decoflex Digital Keypad.

#### Product benefits

- Power supply with 2 x RJ45 connectors to facilitate wiring (in and out).

Dimensions (w × h × d)	88 × 57 × 33 mm
Degree of protection	IP 20
Operating temperature	0° C to 40° C
Operating voltage	90 V AC - 260 V AC
Output voltage	20 V
Output current	1 A

RS485 Network Power Supply	Ref. 9 019 003
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### BMS Interface

NEW



Provides communication between Building Management Systems and Somfy motorized shading systems. Compatible with Radio Technology Systems (RTS), Stand-alone SDN, animeo IP/io and animeo IP/RS485 shade systems.

#### Product benefits

- RJ45 connector for false prove connections
- LED indicators providing information about the status of the product, the normal operation or a system error.
- Programmable through user-friendly interface.
- Integration capabilities: Modbus, BACnet MS/TP, BACnet IP.
- Auto device discovery for animeo IP

Dimensions (w × h × d)	115 × 92 × 41 mm
Degree of protection	IP 20
Operating voltage	24 V DC
Operating temperature	0° C to +50° C

BMS Interface	Ref. 1 822 558
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### RS485 6 x RJ45 Bridging Adapter

NEW



A component designed to facilitate the connection of RS485 Somfy Digital Network devices on the RS485 network segment.

#### Product benefits

- 6 x RJ45 Bridging Adapter for the wiring of the RS485 Somfy Digital Network devices. Two holes for mounting to a wall or a panel.

Dimensions (w × h × d)	103 × 39,9 × 26,5 mm
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RS485 6 x RJ45 Bridging Adapter	Ref. 9 019 004
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# animeo IP/RS485

## Sensors and accessories

### RS485 Terminator

NEW



A RS485 component designed to terminate RS485 network segment.

#### Product benefits

- Easy plug in RJ45.

Dimensions (w × h × d)	11,7 × 21,5 × 7,9 mm
Operating temperature	- 30° C to +90° C

RS485 Terminator	Ref. 9 019 005
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### RS485 Setting tool

NEW



An intuitive tool for blind makers to set the parameters (e.g. end limits) of the motors before or during installation on site.

#### Product benefits

- Display with 2 lines (16 characters per line) RJ45 female connector for fast connection.

Dimensions (w × h × d)	117 × 79 × 24 mm
Degree of protection	IP 30

RS485 Setting Tool	Ref. 9 017 142
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## Web remote control

### Web remote control

NEW



Manual user control. Allows control of one blind or a group of blinds via a web page from a user's computer or a smartphone.

#### Product benefits

- Applicable at any time
- Can easily be adapted to the user's environment

#### Further features

- Control Up/Down position
- Control slat position
- Display of blind position
- Overrides automatic functions

animeo IP web remote license key	Ref. 9 019 244
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# animeo IP/RS485

## Local wall controls

### Smoove IB Origin



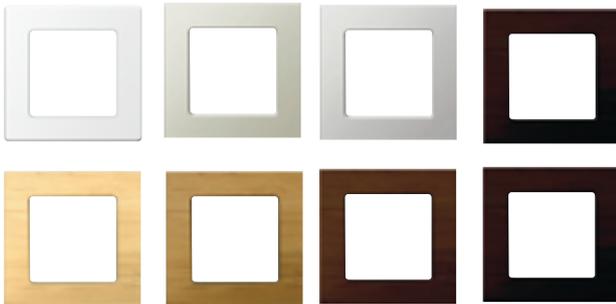
Manual control of several motors over IB bus. Comfortable central control or group operability. Operation via the UP, DOWN and STOP buttons is possible at any time.

**Smoove IB Origin**

Ref. 1 811 272

For flush-mounted installation.

### Smoove frames



Pure	Ref. 9 015 022
Silver Lounge	Ref. 9 015 024
Silver Mat	Ref. 9 015 025
Black	Ref. 9 015 023
Light Bamboo - wood-effect	Ref. 9 015 027
Ambergris Bamboo - wood-effect	Ref. 9 015 026
Cherry - wood-effect	Ref. 9 015 236
Walnut - wood-effect	Ref. 9 015 237
Double frame Pure	Ref. 9 015 238

### Decoflex Digital Keypad

NEW



A wired RS485 user interface for local control of individual motors or groups of motors. Provides push button on front for up to 8 buttons including up, down, stop, eco mode and presets.

**Product benefits**

- Configurable button functionality presets.
- Auto-discoverable address and location.
- Interchangeable buttons to match selected preset.
- Single or multi-gang compatible.
- Standard Decora® size.
- Inputs on the back to connect standard switches to fulfill all commands accessible at the front.

Overall dimensions (without wall plate)	36.51 x 69.85 x 38.10 mm
Degree of protection	IP 20 (mounted)
Protection class	II
Operating temperature	0 °C to 45 °C
Supply voltage	+ 24 V DC, supplied by Somfy Digital Network Bus
Stand-by current	9 mA @ 24 V DC
Relative humidity	85 %
Material	Face plates & buttons: Lexan 945U
Weight	65 g
<b>Decoflex Digital Keypad</b>	Ref. 1 811 289

For flush-mounted installation.

# animeo IP/RS485

## Motors

### Sonesse30 RS485



Somfy quiet digital motorization for small blinds, dedicated to interior applications.



Type of head	Thin
Diameter	28
Degree of protection	IP 30
Protection class	III
Operating temperature	0° C to + 60° C
Supply voltage	24 V DC
Speed with load	Adjustable speed from 6 to 28 rpm
Torque	2 Nm
Limit Switch Unit	Digital

**Sonesse30 DC RS485 2/28** Ref. 1 000 658

### Sonesse50 RS485



The digital solution with the new acoustic standard for interior blinds.



Type of head	Star
Diameter	47
Degree of protection	IP 44
Protection class	I
Operating temperature	- 20° C to + 60° C
Supply voltage	230, 120, 100 or 220 V AC
Speed with load	17, 28 or 32 rpm
Torque	5 - 15 Nm
Limit Switch Unit	Digital

**Sonesse 50 RS485 6/28** Ref. 1 002 382

**Sonesse 50 RS485 6/32** Ref. 1 002 286

**Sonesse 50 RS485 10/32** Ref. 1 002 287

**Sonesse 50 RS485 5/28-32** Ref. 1 002 384

**Sonesse 50 RS485 5/32** Ref. 1 002 505

The motors listed above are a selection from the full motor range. For more details, please contact your local Somfy partner

# animeo IP/RS485

## Motors

### LT50 RS485



The proven digital 50 mm diameter for blinds and screens.

Type of head	Star
Diameter	47
Degree of protection	IP 44
Protection class	I
Operating temperature	- 20° C to + 60° C
Supply voltage	230, 120, 100 or 220 V AC
Speed with load	17, 20, 32 or 38 rpm
Torque	5 - 35 Nm
Limit Switch Unit	Digital
<b>LT50 RS485 6/32</b>	1 002 494
<b>LT50 RS485 15/32</b>	1 002 495
<b>LT50 RS485 15/38</b>	1 002 427
<b>LT50 RS485 5/32-38</b>	1 002 283
<b>LT50 RS485 18/20</b>	1 002 504

The motors listed above are a selection from the full motor range. For more details, please contact you local Somfy partner

### Soness50 Ultra AC & DC



The quietest and strongest motor on the market.



	AC	DC
Type of head	Star	Square
Diameter	47	63.7
Degree of protection	IP 31	IP20
Protection class	I	III
Operating temperature	0° C to + 60° C	
Supply voltage	120 V/60 Hz	24 V DC
Speed with load	24 rpm	10 - 25 rpm
Torque	6 Nm	4 Nm
Limit Switch Unit	Electronic	

<b>Soness ULTRA 50 RS485</b>	Ref. 1 002 566	Ref. 1 134 022
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The motors listed above are a selection from the full motor range. For more details, please contact you local Somfy partner

# animeo IP/RS485

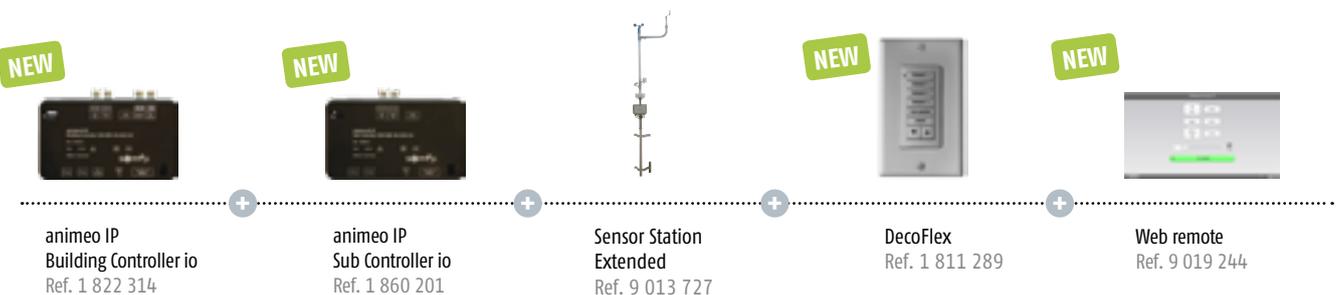
## Project example

### Functionality required and specified by building owners

- Alignment of defined groups or blinds.
- Management per window, group or façade for interior screens.
- Local control points through local control or web remote.
- Configuration and maintenance can be monitored and modified remotely.  
The exact position and status of the interior screens should be visible at any time.



## Products installed



# animeo IP/RS485

## Automatic functions

- Alignment of blinds when the building is not occupied.
- Sun automatic including sun tracking to prevent overheating of the building and provide glare control and comfort for the occupants.
- Possibility for the local user to override automatic functions at any time unless safety functions are active.

## Installation details



The animeo IP/RS485 Building Controllers and Sub Controllers are communicate bi-directionally with the motors.

The local controls also communicate with the system.

The connections between motors and local control points are set up through the animeo IP Visual Configuration Software.

The sensor station is directly linked to the animeo IP/RS485 Building Controller. Each window, group or façade is managed separately depending on the weather conditions and the parameters defined.

1. Sensor Station Extended
2. animeo IP/RS485 Sub Controller
3. animeo IP/RS485 Building Controller
4. Maintenance through animeo IP Visual Configuration Software

# animeo IP/RS485

## Case study

### Kaiser Permanente Hospital, Oakland – USA



#### Initial Brief

The Kaiser Permanente Hospital in Oakland, CA is the flagship hospital for Kaiser Permanente which is one of the largest non-profit hospital organizations in the country. The Kaiser Permanente development team is committed to using the latest technologies in order to control and manage the natural light entering the building.

The design team at Kaiser Permanente partnered with Somfy and Peninsulators to manufacture and install 390 motorized roller shades powered by Somfy Sonesse 50 IIT motors in the hospital's patient rooms. Intelligent keypads are installed on the headwall of every patient room and are integrated to the patient bedside control system via dry contact wiring.

#### Reasons to use animeo IP/RS485

The automated shades increase productivity of the nursing staff and empower patients by integrating the shading system into the patient bedside control system and nursing stations. The keypads are programmed to provide complete up and down control of the shades, as well as intermediate control at intervals of 25 %, 50 % and 75 %. animeo IP is also programmed into the nurse's station PC's to provide additional control and real-time feedback of the shading system, thus ensuring the staff knows the status of all the shades at all times.



#### Technical information

- animeo IP/RS485 system
- 1 animeo IP Building Controller
- 1 animeo IP Sub Controller
- 390 x Sonesse 50 IIT 2 motors
- 350 x Decoflex Digital Keypad
- Integrated bedside controls



# animeo **KNX**<sup>®</sup>

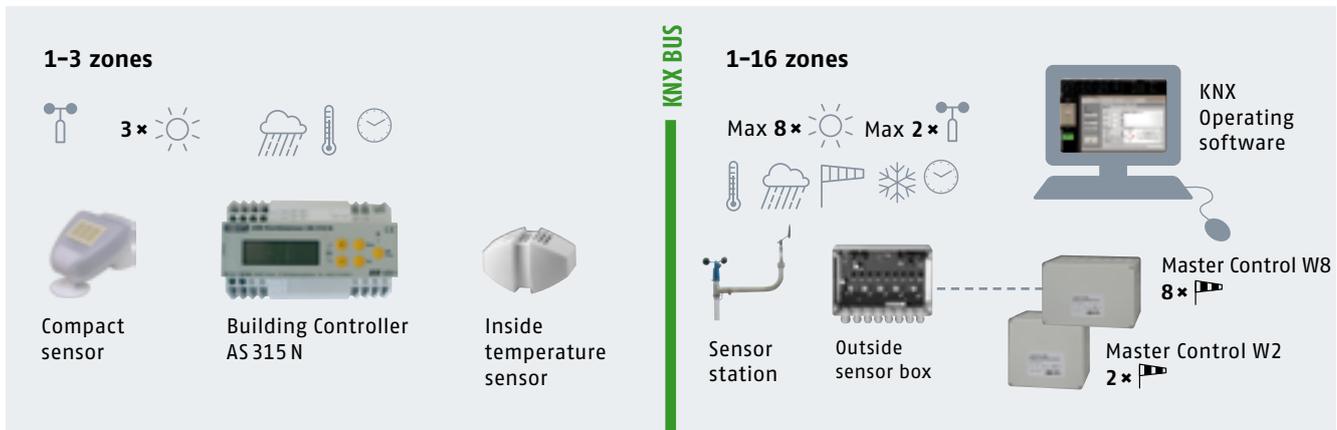
- System topology
- Benefits
- Products
- Project example
- Case study



Adaptable façade management system compatible with KNX standards.  
 Multifunctional Motor Controller to control all types of blinds and window coverings.  
 Local wired switches and Somfy RTS remote controls can be integrated with to the KNX bus using binary inputs.

## System topology

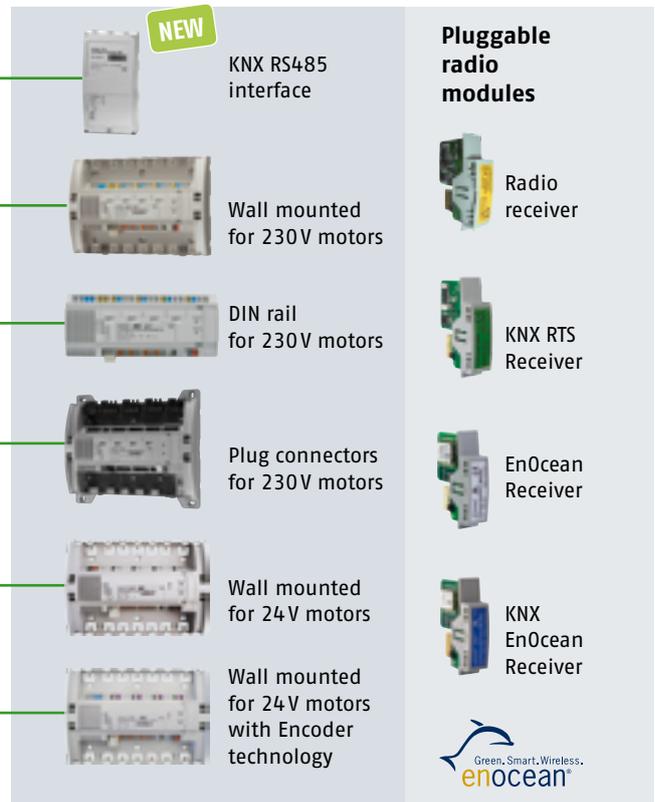
### Central KNX control



### Local control options



### Motor Controllers



## Benefits

### Intuitive animeo KNX Operating Software

Simplified programming of all functions, such as wind direction and sun-tracking.

### Wind direction measurement

The blinds move up into the security position only when the façade is affected by wind speed, depending on wind direction. All other areas of the façade remain shaded. In the event of a storm, the blinds on all façades move up.



### Zone based daylight/shadow management



animeo KNX guarantees optimum lighting management, glare protection, and better viewing comfort. This saves energy spent on artificial lighting and improves the lighting conditions in the room. Shadows on the building façade can be taken into account for a defined zone to maximise the use of natural light.



### Energy savings through

- Solar gains from the sun in winter when occupants are absent.
- Diminished slat-turn angles and reduced cooling requirements in summer.
- Intelligent wind protection controlled using only façades affected by the wind. In all other façade zones, the blinds remain in the sun protection position and thus reduce the load for cooling.



### Functions integrated with other systems

Other applications such as lighting, heating, cooling, can be integrated.

### High levels of user comfort

All blinds can be operated locally. The user is able to override the automatic function.

### More functions

- Individual sun protection control per façade and thus improved working conditions in every room.
- Sensors can be used in multiple ways.
- All types of blinds and façade elements can be controlled. 19 different blind and façade elements are available.
- Manual override of automatic orders possible at a room level.



Wall-mounted Motor Controller



Din-rail Motor Controller

Compatible with all installation environments

## Building Controller

### KNX Master Control W2/W8



Ref. 1 860 187



Ref. 1 860 193



The animeo KNX Master Control W2/W8 is a building controller which enables a zone-based shadow management of 16 or more façade areas for a selection of 19 different types of blinds. The configuration of the façade areas is realized with the animeo KNX Operating Software which reduces the commissioning time.

#### Product benefits

- The orientation direction of the façades is taken into account in the building's own precise shadow and in the shadow cast by opposite buildings.
- A maximum of 5 animeo KNX Master Control units can be linked to one KNX shadow device, providing 80 shadow zones.
- Optimisation of energy consumption through automatic protection of over-heating. In cold weather conditions, sunlight is utilised as a natural source of energy.
- The animeo KNX Operating Software can be used independently of the ETS programming tool.
- The Somfy service includes full preparation of the project-related shadow model, as well as expert consultation.
- The weather station (IP 65) is able to define 2 × (W2) or 8 × (W8) wind speed, wind direction, rain, snow, frost, ice, outside temperature and 8 × sun zones.
- The animeo Compact Sensor can ideally be applied for the façade orientations.
- Indoor temperature values can be defined and assigned to zones to gain maximum energy savings.
- Weekly and annual timers are also included and can be integrated freely on the KNX bus.
- Automatic functions can be allocated by the user selectively and can be overridden.
- Monitoring of all weather data for energy optimisation.
- All real values can be sent to the KNX bus and viewed at the same time via the Windows graphical user interface on the PC.
- The status of the façades can be called up from memory and the set values, by using a password, can be changed in the menu by the user without prior ETS knowledge.

#### Further features

- All safety functions (wind speed, wind direction, rain, snow, frost, ice, outside temperature) are sent cyclically on the bus.
- Using one wind direction sensor, multiple individual wind speed sensors on the façade can be avoided.
- For each of the 16 façades, individual response and delay times can be configured for all available functions.
- Sun tracking for each zone depending on the sun's elevation and azimuth can be configured in the user software.
- The entire configuration of the sun protection control centre is performed using a user-friendly Windows interface.
- Individual façades can be controlled over the operating user interface.
- For maintenance purposes it is possible to block single façades or the complete building over the user interface.

Dimensions (w × h × d)	180 × 182 × 110 mm
Degree of protection	IP 20
Protection class	III
Operating voltage	24 V AC
Operating temperature	0° C to + 55° C

<b>KNX Master Control W2</b>	Ref. 1 860 187
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For wall-mounted installation. For 2 wind speed sensors

Dimensions (w × h × d)	180 × 254 × 110 mm
Degree of protection	IP 20
Protection class	III
Operating voltage	24 V AC
Operating temperature	0° C to + 55° C

<b>KNX Master Control W8</b>	Ref. 1 860 193
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For wall-mounted installation. For 8 wind speed sensors

### Shadow Device

NEW



The KNX Shadow Device stores the relevant data which is derived from building model provided through Somfy. It is essential in conjunction with the animeo KNX Master Control to realize zone based shadow management for buildings.

#### Product benefits

- The device is provided with a shadow data base which is derived from a building model created through Somfy service and expertise.
- The calculated shadow zones can easily be assigned to the façade zones defined in the animeo KNX Master Control.
- A maximum of 5 animeo KNX Master Control units can be linked to one KNX Shadow Device providing 80 shadow zones.
- Connects easily through standard RJ45 network connector to the animeo KNX Master Control.

## Building Controller

### Further features

- Intuitive network configuration (IP) through a Somfy web page.
- The shadow data base can simply be uploaded through a USB port.

Dimensions (w × h × d)	100 × 175 × 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100 – 240 V AC/50/60 Hz
Operating temperature	-0° C to + 45° C

<b>Shadow Device KNX</b>	Ref. 1 860 252
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△ The implemented shadow data base which is derived from a model created through Somfy service and expertise will be invoiced with a separate fee in addition to the Shadow Device. The amount of this fee depends on the size of the building and the Somfy service and expertise. The Somfy service and expertise is responsible for supplying the shadow data base.

## KNX Building Controller AS 315 N



### Compact Sensor

The complete Compact Sensor in a small format. 3 × sun, 1 × wind, 1 × outside temperature, 1 × rain.

### Product benefits

- More precise sensor measurements.
- Easy wiring as all sensors are integrated in the device.
- Monitored communication between Building Controller and Compact Sensor.
- Façade automation system for 3 façades.
- Controls sun protection and window systems ranging from a detached family house to a large building.
- Provides optimum light and climate inside the building.
- The connected Compact Sensor communicates the following information to the KNX Building Controller AS 315 N: brightness from east, south and west, dusk, wind speed, rain, outside temperature.
- Wiring benefits: only one cable (2 × 2 × 0.8 mm) needs to be laid from the AS 315 N to the Compact Sensor.
- An optional Inside Temperature Sensor (e.g. for a conservatory) can be connected.
- The KNX Building Controller AS 315 N evaluates and processes all weather signals so that the sun protection and window system can be controlled from a user and energy standpoint.
- The most important functions can be set over the ETS as well as directly over the display on the AS 315 N.

### Further features

- Integrated sensors.
- Three Sun Sensors in fixed direction 90 ° (east), 180 ° (south) and 270 ° (west).
- Wind Speed Sensor without moving parts.
- Outside Temperature Sensor.
- Heated Rain Sensor.
- Bracket for wall or post mounting.

Dimensions (w × h × d)	140 × 90 × 64 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	-5° C to + 45° C

<b>KNX Building Controller AS 315 N</b>	Ref. 1 860 068
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For DIN-rail installation.

Dimensions (w × h × d)	96 × 77 × 118 mm
Degree of protection	IP 44
Protection class	III
Operating voltage	230 V AC
Operating temperature	-25° C to + 50° C

<b>Compact Sensor</b>	Ref. 9 015 079
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For DIN-rail installation.

<b>Kit AS 315 N + Compact Sensor</b>	Ref. 1 860 069
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Delivery incl. 1 × KNX Building Controller AS 315 N + 1 × Compact Sensor

## Sensor accessories

### Inside Temperature Sensor



For interior temperature control and air ventilation. Ideal for winter gardens. To connect to the AS 315 N.

Dimensions (w × h × d)	84 × 50 × 32 mm
Degree of protection	IP 20
Protection class	II

<b>Inside Temperature Sensor</b>	Ref. 9 001 461
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For wall-mounted installation.

## Motor Controller

### KNX 4 AC Motor Controller



For roller shutters, screens, exterior Venetian blinds and windows.  
To control 4 × 230 V AC motors.

#### Product benefits

- Cost savings through use of 8 freely-definable binary inputs.
- Upgradable for local operation by radio.
- User-friendly and intuitive parameter settings in the ETS software.
- Intelligent switching between manual and automatic operation to guarantee excellent user-friendliness and energy savings.
- Extendability: extendable at any time with the animeo RTS radio module. Without any additional wiring investment, 4 motors can be controlled individually or in a group by radio using the Somfy RTS Technology.
- Through the animeo KNX RTS Radio Receiver (Ref. 1 860 191) and the animeo KNX EnOcean Receiver (Ref. 1860220) RTS or EnOcean signals can be linked to the KNX bus.

#### Further features

- Position feedback per motor output during movement and when reaching the top and bottom end position.
- Two different safety positions freely definable for each individual motor output.
- Safety position after mains voltage return freely definable.
- Automatic cascading of the outputs with mains voltage return and bus safety function to minimise current peaks.
- The device can be used "out of the box", without requiring programming with the ETS software.
- Mixed systems: in contrast to Motor Controllers based on the Somfy Controlling Technology, with KNX different motor types can be connected to one Motor Controller device (e.g. for Venetian blinds, screens, windows).
- Advanced operating mode: greater user comfort through local disabling of non-security commands (e.g. sun) as soon as local operation is assigned. At a defined time, the system switches back to automatic again.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Max. current consumption	max. 3.15 A per output

**KNX 4 AC Motor Controller** Ref. 1 860 114

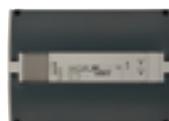
For wall-mounted installation.

Dimensions (w × h × d) 90 × 210 × 61 mm

**KNX 4 AC Motor Controller DRM** Ref. 1 860 116

For DIN-rail installation.

### KNX 4 DC Motor Controller



For interior blinds, interior Venetian blinds and windows.  
To control 4 × 24 V DC motors.  
External 24 V DC power supply required (see accessories).

#### Product benefits

- Cost savings through use of 8 freely-definable binary inputs.
- Clear, self-explanatory ETS index cards.
- Configurable slat tilting speed for optimum user ergonomics.

#### Further features

- Output protected through current detection.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	III
Operating voltage	240 V DC
Operating temperature	0° C to + 45° C
Output voltage	24 V DC
Max. current consumption	max. 2,1 A per output

**KNX 4 DC Motor Controller WM** Ref. 1 860 128

For wall-mounted installation.

**KNX 4 DC Motor Controller DRM** Ref. 1 860 288

For Din-rail installation.

## Motor Controller

### KNX 4 DC/DC-E Motor Controller



For interior blinds and interior Venetian blinds. To control 4 × 24 V DC or DC-E Somfy Encoder motors from the "Somfy Concept 25" series.

#### Product benefits

- Easy installation: integrated 230 V AC power supply.
- Cost savings through use of 8 freely-definable binary inputs.
- Especially precise positioning of the slats in conjunction with the Somfy DC Encoder motor and the Somfy CTS winding system.
- Exact positioning of the Venetian blind.
- Upgradable for local operation by radio.
- Local setting of intermediate position and user ergonomics.
- Clear, self-explanatory ETS index cards.

#### Further features

- Output protected through current detection.

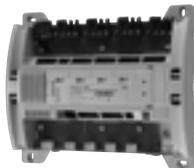
Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	III
Operating voltage	230 V DC
Operating temperature	0° C to + 45° C
Output voltage	24 V DC
Max. current consumption	max. 0.5 A per output

<b>KNX 4 DC/DC-E Motor Controller WM</b>	Ref. 1 860 127
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For wall-mounted installation.

## Motor Controller with specific connectors

### KNX 4 AC Motor Controller WM-P2



For roller shutters, screens, exterior Venetian blinds and windows. To control 4 × 230 V AC motors.

#### Product benefits

- For Wago Winsta® plug connectors.
- Clear, self-explanatory ETS index cards.

#### Further features

- Easily accessible safety fuse per output.

Dimensions (w × h × d)	255 × 180 × 63 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Max current consumption	max. 3.15 A per output

<b>KNX 4 AC Motor Controller WM-P2</b>	Ref. 1 860 197
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For wall-mounted installation.

### KNX 4 AC Motor Controller WM-P



For roller shutters, screens, exterior Venetian blinds and windows. To control 4 × 230 V AC motors.

#### Product benefits

- For Wieland plug connectors.
- Cost savings through use of 8 freely-definable binary inputs.
- Upgradable for local operation by radio or infrared.
- Clear, self-explanatory ETS index cards.

#### Further features

- Easily accessible safety fuse per output.

Dimensions (w × h × d)	255 × 180 × 63 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Operating temperature	0° C to + 45° C
Output voltage	230 V AC
Max. current consumption	max. 3.15 A per output

<b>KNX 4 AC Motor Controller WM-P</b>	Ref. 1 860 219
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For wall-mounted installation.

## KNX/RS485 Motor Controller

### Excellent screen control

#### KNX RS485 Motor Controller



KNX RS485 Motor Controller which connects with the KNX bus to control a group of 1 to 6 similar Somfy RS485 motors.

Further technical features are explained in full in the operating instructions.

#### Further features

- Using a byte telegram, the motor can be moved to any desired position (0 - 100 %).
- The current position of the motor (0 - 100 %) can be viewed on an external display / BMS System.
- The motor, based on parameter settings and if a window or door contact is open, is moved to one of four blocking positions and disabled for further move commands.
- Following a safety telegram, the motor moves to one of various configurable safety positions and is blocked for further move commands.

#### Important for site managers

- Precise façade design through positioning of the blinds with help of the increment encoder technology of the RS485 motor.

#### Product benefits

- To control Somfy RS485 tubular motors in screens and roller shutters.
- The interface enables bi-directional data exchange between the KNX bus and the Somfy RS485 tubular motor.
- The exact position of the motor during a move is sent to the KNX bus.
- The top and bottom positions of the motor are sent when the positions are reached.
- A conventional double push button and window contact can be connected directly to the interface. Both inputs can be used as universal binary inputs.

Dimensions (w × h × d)	90 × 180 × 45 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	24 V DC
Operating temperature	0° C to + 40° C
Nominal current consumption KNX bus	< 10 mA DC

<b>KNX RS485 Motor Controller WM</b>	Ref. 1 860 236
For wall-mounted installation.	

<b>KNX RS485 Motor Controller PCB</b>	Ref. 1 860 238
Dimensions (w × h × d)	60 × 105 × 20 mm
For DIN-rail installation. Additional DIN-rail adapter needed (Ref. 9008 049).	

<b>KNX RS485 Motor Controller WM</b>	Ref. 1 860 286
For wall-mounted installation.	

**Q2 2017**  
Individual controlling  
of 18 motors

#### DIN-rail adapter



For installation on 35 mm DIN-rail to mount circuit board versions of the animeo 1 AC Motor Controller and animeo KNX RS485 Motor Controller.

Dimensions (w × h × d)	60 × 105 × 20 mm
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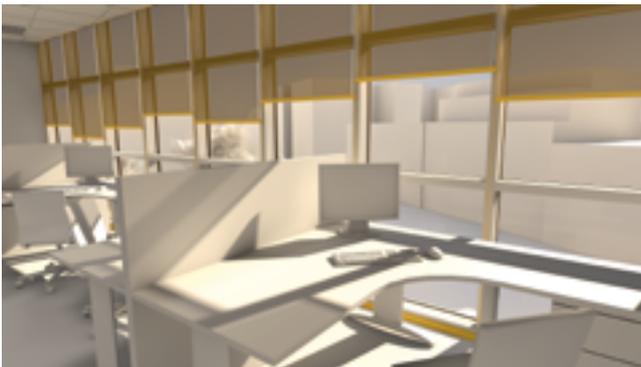
<b>DIN-rail adapter</b>	Ref. 9 008 049
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For 35 mm DIN-rail, colour; black, 4 SUs.

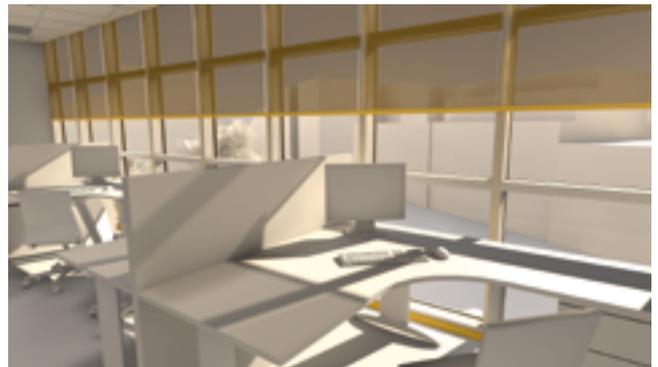
## KNX/RS485 Motor Controller

### Excellent screen control

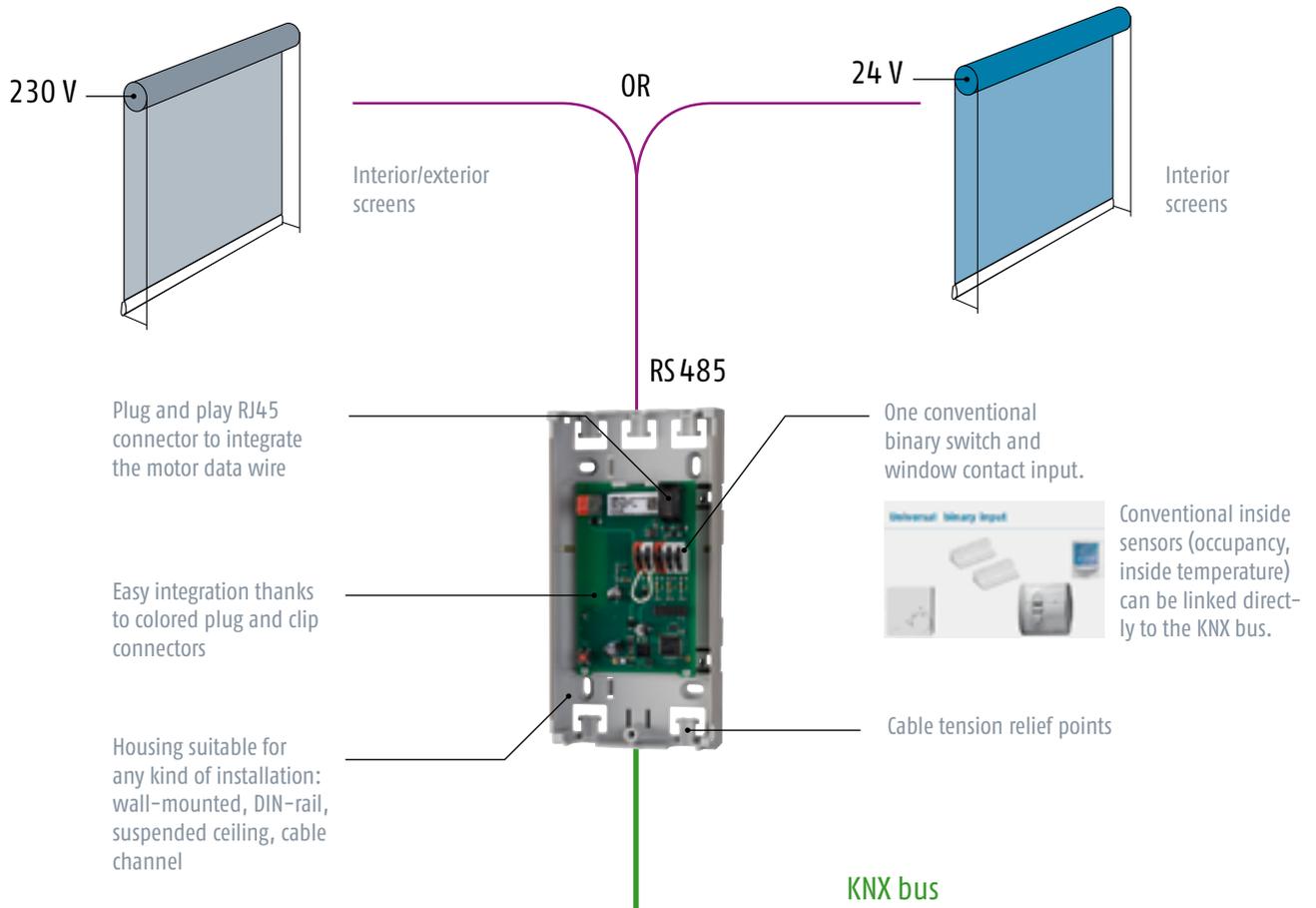
- Perfect alignment
- Numerous intermediate positions
- Precise motor positioning feedback
- Precise façade design



With standard motor



With the digital RS485 motor



## Accessories

### RTS Radio Receiver



Radio for retrofitting KNX 4 AC, 4 DC or 4 DC/DC-E Motor Controllers. Directly pluggable into the Motor Controller.

Dimensions (w × h × d)	52 × 92 × 27 mm
Protection class	II
Supply voltage	5 V DC, from animeo KNX Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	433 MHz
Radio range	20 m through 2 walls
Degree of protection	IP 20
<b>KNX RTS Receiver</b>	Ref. 1 860 105

### KNX RTS Receiver



Radio receiver for forwarding the Somfy RTS radio signals to the KNX bus.

#### Product benefits

- Economical radio operation for KNX.
- No additional bus subscriber (physical address).
- Pluggable into existing animeo KNX Motor Controller.
- Selection of usual applications such as Venetian blinds, light switch/dimming, scene call-up.
- Comfortable operation using scroll wheel with Modulis handheld sender – ideal for Venetian blinds and dimming lights.

#### Further features

- Up to 5 universal radio channels.
- Application per radio channel freely defineable (Venetian blinds, switching, turning Venetian blinds slowly).
- Up to 4 Somfy RTS sender addresses per radio channel can be learned.

Dimensions (w × h × d)	52 × 92 × 27 mm
Protection class	II
Supply voltage	5 V DC, from animeo KNX Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	433 MHz
Radio range	20 m through 2 walls
Degree of protection	IP 20
<b>KNX RTS Receiver</b>	Ref. 1 860 191

## Accessories

### EnOcean Receiver 868 MHz



An EnOcean radio receiver to interwork with EnOcean switches PTM200, PTM210. Enables shading systems in buildings to be linked up with the battery-free, wireless EnOcean radio technology. Compatible with all animeo KNX Motor Controllers.

#### Product benefits

- Refurbishment is especially economical since it can be performed in very little time and without installation work.
- Can be inserted into animeo KNX Motor Controllers at any time.
- The receiver can be combined with the battery-free, wireless EnOcean radio switch module PTM200, PTM 210.

#### Further features

- Simple and intuitive learning process of EnOcean switch module PTM200, PTM210 to the animeo EnOcean Receiver.
- Individual and group control of motor outputs freely definable.
- Priority management between local and central commands directly on the device or through different operation modes.

Dimensions (w × h × d)	60 × 16 × 46 mm
Protection class	II
Supply voltage	5 V DC, from animeo KNX Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	868 MHz
Radio range	20 m through 2 walls
Degree of protection	IP 20

<b>EnOcean Receiver 868 MHz</b>	Ref. 1 860 220
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### KNX EnOcean Receiver 868 MHz



An EnOcean radio receiver for forwarding the EnOcean radio signals on the KNX bus. Available for all animeo KNX Motor Controllers.

#### Product benefits

- Economic radio operation for KNX.
- No additional bus subscriber (physical address).
- Pluggable in existing animeo KNX Motor Controller.
- Selection of usual applications such as Venetian blinds, light switch/dimming, scene call-up.
- The receiver can be combined with the battery-free, wireless EnOcean radio switch module PTM 200, PTM 210.

#### Further features

- Up to 5 universal radio channels.
- Application per radio channel freely definable (Venetian blinds, switching, turning Venetian blinds slowly).
- Up to 4 remotes per radio channel can be learned-in.

Dimensions (w × h × d)	60 × 16 × 46 mm
Protection class	II
Supply voltage	5 V DC, from animeo KNX+ Motor Controller
Operating temperature	0° C to + 45° C
Radio frequency	868 MHz
Radio range	20 m through 2 walls
Degree of protection	IP 20

<b>EnOcean Receiver 868 MHz</b>	Ref. 1 860 229
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## Sensors and accessories

### Compact Sensor



The complete weather station in a small format.  
3 × sun, 1 × wind, 1 × outside temperature, 1 × rain.  
Additional requirements: 24 VDC power supply.

#### Product benefits

- Wiring made easy as all sensors are integrated in the device.
- Monitored communication between KNX Master Control W2/W8 and Compact Sensor.

#### Further features

Integrated sensors:

- Three sun sensors in fixed direction 90° (east), 180° (south) and 270° (west).
- Wind speed sensor without moving parts.
- Outside temperature sensor.
- Heated rain sensor.
- Bracket for wall or post mounting.

Dimensions (w × h × d)	96 × 77 × 118 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V DC ± 10 %
Operating temperature	- 25° C to + 50° C

<b>animeo Compact Sensor</b>	Ref. 9 015 047
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### Lightning protection



To protect the controls from lightning. Used in conjunction with the Outside Sensor Box or Compact Sensor.

<b>Electronic lightning protection power supply</b>	Ref. 9 001 629
<b>Electronic lightning protection RS 485</b>	Ref. 9 001 630

### Outside Sensor Box



The Outside Sensor Box is the interface between the weather station and the animeo KNX Master Control W2/W8. All measurement values are evaluated here and sent to the animeo KNX Master Control W2/W8. It requires an external 24 V AC/DC power supply.

#### Product benefits

- Convenient lightning protection – only two cables (power supply 24 V AC/DC and data cable) need to be laid to the outside.

#### Further features

- All sensors incl. Outside Sensor Box can be fixed to the Sensor Station mast.
- Up to 8 sun sensors, 2 wind sensors, 1 wind direction sensor, 1 rain sensor, 1 outside temperature sensor.

Dimensions (w × h × d)	235 × 207 × 90 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V AC/DC
Operating temperature	-30° C to + 70° C

<b>Outside Sensor Box</b>	Ref. 9 001 606
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For wall-mounted installation.

### Power Supply DRM 24 V 1.5 A



To supply the Outside Sensor Box (without heated sensors) or the animeo KNX Compact Sensor.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>Power Supply DRM 24 V DC 1.5 A</b>	Ref. 9 017 611
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## Sensors and accessories

### animeo Power Supply DC



To supply the Outside Sensor Box (with heated sensors), the animeo KNX Master Control W2/W8.

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100 %) 4.5 A (switch on duration 50 %: 3 min. on, 3 min. off)

**animeo Power Supply DC** Ref. 1 860 093

For wall-mounted and DIN-rail installation.

### Wind Sensor



To measure wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, ø 240 mm max. ø-mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm <sup>2</sup>

**Wind Sensor** Ref. 9 001 608

### Heated Wind Sensor



To measure wind speed in connection with the Outside Sensor Box. Recommended for geographical areas with strong winter periods.

#### Product benefits

- Rotating parts cannot stick due to ice or snow thanks to integrated thermostat controlled heating.
- Provides reliable and precise wind speed measurement during the winter period.
- High resilience and durability by precision bearing.

Dimensions	Height 190 mm, ø 240 mm max. ø-mast 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>

**Heated Wind Sensor** Ref. 9 140 180

### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque and UV stabilized housing. 24 V DC and 230 V AC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard 50 mm diameter mast.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 × 0.75 mm<sup>2</sup>).

Dimensions (w × h × d)	115 × 100 × 85 mm
Degree of protection	IP 44
Wiring recommendations	3 × 1.5 mm

**Rain Sensor Ondeis 24 V DC** Ref. 9 016 344

**Rain Sensor Ondeis 230 V AC** Ref. 9 016 345

## Sensors and accessories

### Wind Direction Sensor



To measure wind direction in connection with the Outside Sensor Box.

#### Product benefits

- Minimises the number of individual wind speed sensors installed to improve the façade aesthetics.
- Very good starting value by magnetic contact-free measure principle.
- Winter and offshore usable.
- High resilience and durability by precision bearing.

Dimensions	Height 303 mm, Arrow length 515 mm, max. $\phi$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 × 1.5 mm <sup>2</sup>
<b>Wind Direction Sensor</b>	Ref. 9 013 807

### Outside Temperature Sensor



To measure exterior temperatures in conjunction with the Outside Sensor Box.

#### Further features

- Precise measurement of exterior temperature values which can be displayed in °C or °F in the KNX Master Control W2/W8 solution.
- Protective housing to prevent measurements influenced by spiders and birds
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm, $\phi$ 115 mm
Degree of protection	IP 65
Wiring recommendations	2 × 0.8 mm
<b>Outside Temperature Sensor</b>	Ref. 9 001 611

### Sun Sensor



Sun sensor to measure luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow low integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for safe and robust wiring to the Outside Sensor Box.

Dimensions (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 43
Protection class	III
Wiring recommendations	2 × 0.8 mm
Angle position	150°

<b>Sun Sensor without mounting bracket</b>	Ref. 9 050 100
<b>Mounting bracket for Sun Sensor</b>	Ref. 9 127 888
<b>Complete pack</b>	Ref. 9 154 043

## Sensors and accessories

### Sensor Station



The Sensor Station consists of an aluminium mast with pre-mounted and pre-wired Outside Sensor Box, 4 sun sensors, 1 wind sensor and 1 outside temperature sensor. The Sensor Station can be equipped with additional sensors such as sun sensors and a rain sensor. Wall brackets included.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for precise façade orientation.

Dimensions/mast height	3200 mm
<b>Sensor Station</b>	Ref. 9 013 726

### Sensor Station extended



The sensor station extended consists of an aluminum mast with a pre-mounted and pre-wired Outside Sensor Box, 8 sun sensors, 1 wind speed sensor, 1 wind direction sensor, a rain sensor and an outside temperature sensor.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions / mast height	3200 mm
<b>Sensor Station extended</b>	Ref. 9 013 727

### Mast without sensors



Individual mast for sun, wind and rain sensors.

Dimensions/mast height	3 200 mm
<b>Mast without sensors</b>	Ref. 9 014 301

### Mast extended without sensors



Mast extended without sensors and Outside Sensor Box. Incl. accessories for wind direction sensor.

Dimensions/mast height	3 200 mm
<b>Mast extended without sensors</b>	Ref. 9 014 302

### Roof mounting



To roof-mount the Sensor Station. Stainless steel.

<b>Roof mounting</b>	Ref. 9 014 300
<b>Strain connection for roof mounting only</b>	Ref. 9 014 303

## System accessories

### KNX Power Supply 320 mA



KNX Power Supply with integrated choke. Usable world-wide due to wide range input 100 – 240 V AC. LED indicator for power, overload and reset. Push button for automatic reset on the KNX line. Additional auxiliary voltage output with 30 V DC. Nominal current on the short-circuit protected outputs is 320 mA.

#### Product benefits

- Wide range input 100 to 240 V AC / 50–60 Hz.
- Integrated KNX choke.
- Integrated KNX reset function for choked output.
- Short-circuit protection.
- Status LEDs for power, overload and reset.

Dimensions (w × h × d)	71 × 91 × 62 mm (4 SU)
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 50° C
Supply voltage	100 - 240 V AC / 50 - 60 Hz
Output voltage	30 V DC (28 - 31 V DC according to KNX specification)
Output voltage not choked	30 V DC
Nominal current	320 mA

**KNX Power Supply 320 mA** Ref. 9 018 244

For DIN-rail installation.

### KNX Power Supply 640 mA



KNX Power Supply with integrated choke. Usable world-wide due to wide range input 100 – 240 V AC. LED indicator for power, overload and reset. Push button for automatic reset on the KNX line. Additional auxiliary voltage output with 30 V DC. Nominal current on the short-circuit protected outputs is 640 mA.

#### Product benefits

- Wide range input 100 to 240 V AC / 50–60 Hz.
- Integrated KNX choke.
- Integrated KNX reset function for choked output.
- Short-circuit protection.
- Status LEDs for power, overload and reset.

Dimensions (w × h × d)	107 × 91 × 62 mm (6 SU)
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 50° C
Supply voltage	100 - 240 V AC / 50 - 60 Hz
Output voltage	30 V DC (28 - 31 V DC according to KNX specification)
Output voltage not choked	30 V DC
Nominal current	640 mA

**KNX Power Supply 320 mA** Ref. 9 018 245

For DIN-rail installation.

## System accessories

### KNX USB Interface



This interface is to establish a bidirectional connection between a PC and the KNX installation bus.

The USB connector has a galvanic separation from the KNX bus. Both ETS (Engineering Tool Software) versions ETS3 or later and some visualization tools support this interface.

Dimensions (w × h × d)	18 × 90 × 56 mm (1 SU)
Degree of protection	IP 20
Protection class	III
Supply voltage	Power for communication via USB is supplied by the connected PC/laptop, correct operation is indicated by the corresponding LED. Power consumption: < 200 mW Power for communication via KNX is supplied by KNX bus.
Operating temperature	- 5° C to + 45° C
Power consumption	< 100 mW

<b>KNX USB Interface</b>	Ref. 9 018 243
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### KNX USB Interface Stick



This interface is to establish a bidirectional connection between a PC and the KNX installation bus.

The USB connector has a galvanic separation from the KNX bus. Both ETS (Engineering Tool Software) versions ETS3 or later and some visualization tools support this interface.

Dimensions (w × h × d)	21 × 90 × 12 mm
Degree of protection	IP 20
Protection class	III
Supply voltage	Power for communication via USB is supplied by the connected PC/laptop, correct operation is indicated by the corresponding LED. Power consumption: < 200 mW Power for communication via KNX is supplied by KNX bus.
Operating temperature	- 5° C to + 45° C
Power consumption	< 100 mW

<b>KNX USB Interface stick</b>	Ref. 9 018 349
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### KNX IP Interface 740 wireless



Wireless KNX IP interface to facilitate the integration/commissioning process.

Dimensions (w × h × d)	125 × 67 × 31 mm
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 45° C
Supply voltage	Via enclosed wall power supply (primary: 230 V ~ / 50 Hz, secondary: 9V)
Power consumption	< 2.5 W (secondary, at 9 V)

<b>KNX IP Interface wireless</b>	Ref. 9 018 247
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### KNX IP Interface



The KNX/IP-Interface is used to connect a PC to the KNX network. The connection is made over the LAN (IP).

The IP address can be obtained by a DHCP server or by manual configuration (ETS) respectively.

Dimensions (w × h × d)	36 × 90 × 56 mm (2 SU)
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 45° C
Supply voltage	External supply 12 - 24 V AC / 12 - 30 V DC Alternative: power - over Ethernet
Power consumption	< 800 mW

<b>KNX IP Interface</b>	Ref. 9 018 246
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## System accessories

### KNX IP Router



The KNX/IP router enables telegrams to be forwarded between different lines through a LAN (IP) as a fast backbone. In addition, this device is able to connect a PC to the KNX network e.g. for ETS programming. The IP address can be obtained by a DHCP server or by manual configuration (ETS) respectively.

Dimensions (w × h × d)	36 × 90 × 56 mm (2 SU)
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 45° C
Supply voltage	External supply 12 – 24 V Alternative: Power – over – Ethernet
Power consumption	< 800 mW
<b>KNX IP Router</b>	Ref. 9 018 248

### KNX Line / backbone coupler



Provides a data connection between separate KNX bus lines and also insulates the bus lines from each other in order to limit bus line interference.

Dimensions (w × h × d)	72 × 90 × 56 mm (2 SU) (2 SUs; 1 SU = 18 mm)
Degree of protection	IP 20
Protection class	III
<b>KNX Line/backbone coupler</b>	Ref. 9 706 007

For DIN-rail mounting.

### KNX IP Line Master



The KNX Line Master combines the essential functions of a KNX bus line: power supply with choke, IP router and IP Interface.

In addition to the bus voltage the power supply offers an auxiliary voltage of 24 V. The IP router in the Line Master enables telegrams to be forwarded between different lines through a LAN (IP) as a fast backbone. Using the embedded IP interface, the KNX line can be connected directly to a PC (e.g. by ETS).

Dimensions (w × h × d)	122 × 90 × 56 mm (7 SU)
Degree of protection	IP 20
Protection class	III
Operating temperature	- 5° C to + 45° C
Supply voltage	Mains voltage 230 V AC/50 Hz
Power consumption	< 4 W (idle) < 28 W (full load)
<b>KNX IP Line Master</b>	Ref. 9 018 249

### RS485 Terminator NEW



A RS485 component designed to terminate RS485 network segment.

#### Product benefits

- Easy plug in RJ45.

Dimensions (w × h × d)	11,7 × 21,5 × 7,9 mm
Operating temperature	- 30° C to +90° C
<b>RS485 Terminator</b>	Ref. 9 019 005

## Local controls

### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable Central Control or group operability. Operation via the UP, DOWN and STOP buttons is possible at any time.

#### Smoove IB Origin

Ref. 1 811 272

For flush-mounted installation.

### Smoove 1 RTS Origin



Manual control of several motors over RTS. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

#### Smoove 1 RTS Origin

Ref. 1 811 218

### Smoove 1 RTS



1 channel on-wall radio transmitter to communicate with the RTS radio module.

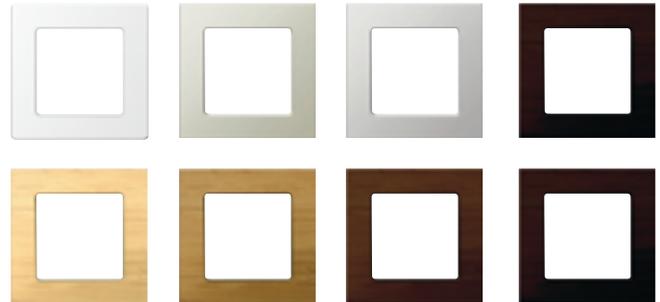
Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to + 60° C
Operational conditions	dry living rooms
Radio frequency	433.42 MHz

#### Smoove 1 RTS

• Pure shine	Ref. 1 810 873
• Black shine	Ref. 1 810 902
• Silver shine	Ref. 1 810 904
<b>Adapter disc for other switching programs</b>	Ref. 9 016 911

For wall-mounted installation.

### Smoove frames



#### Smoove frames

• Pure	Ref. 9 015 022
• Silver Lounge	Ref. 9 015 024
• Silver Mat	Ref. 9 015 025
• Black	Ref. 9 015 023
• Light Bamboo - wood finish	Ref. 9 015 027
• Ambergis Bamboo - wood finish	Ref. 9 015 026
• Cherry - wood finish	Ref. 9 015 236
• Walnut - wood finish	Ref. 9 015 237
• Double frame pure	Ref. 9 015 238

## Local controls

### Telis 1 RTS



Pure Silver Lounge Patio

1 channel handheld radio transmitter, control of one or several motors by radio.

Telis 1 RTS = 1 channel: single or group operation possible.

#### Telis 1 RTS

• Pure	Ref. 1 810 630
• Silver	Ref. 1 810 637
• Lounge	Ref. 1 810 649
• Patio	Ref. 1 810 642

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 1 Modulis RTS



Pure Silver Lounge

1 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.

#### Telis 1 Modulis RTS

• Pure	Ref. 1 810 974
• Silver	Ref. 1 810 975
• Lounge	Ref. 1 810 976

Scope of delivery: handheld transmitter including wall brackets and battery.

## Local controls

### Telis 4 RTS



Pure Silver Lounge Patio

5 channel handheld radio transmitter, manual control of one or several motors by radio.

Telis 4 RTS = 5 channels: single or group operation possible.

#### Telis 4 RTS

• Pure	Ref. 1 810 631
• Silver	Ref. 1 810 638
• Lounge	Ref. 1 810 651
• Patio	Ref. 1 810 644

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 Modulis RTS



Pure Silver Lounge

5 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.  
Telis 4 Modulis RTS = 5 channels: single or group operation possible.

#### Telis 4 Modulis RTS

• Pure	Ref. 1 810 765
• Silver	Ref. 1 810 663
• Lounge	Ref. 1 810 664

Scope of delivery: handheld transmitter including wall brackets and battery.

## Project example

### Functionality required and specified by the building owner

- Unlimited number of zones to control exterior Venetian blinds
- Interaction with lighting and HVAC system
- Zone based shadow management
- Control of blinds and light through Somfy RTS and EnOcean technology

- Links to sensors
- Bus line KNX
- Power supply
- Motor cable

**NEW**



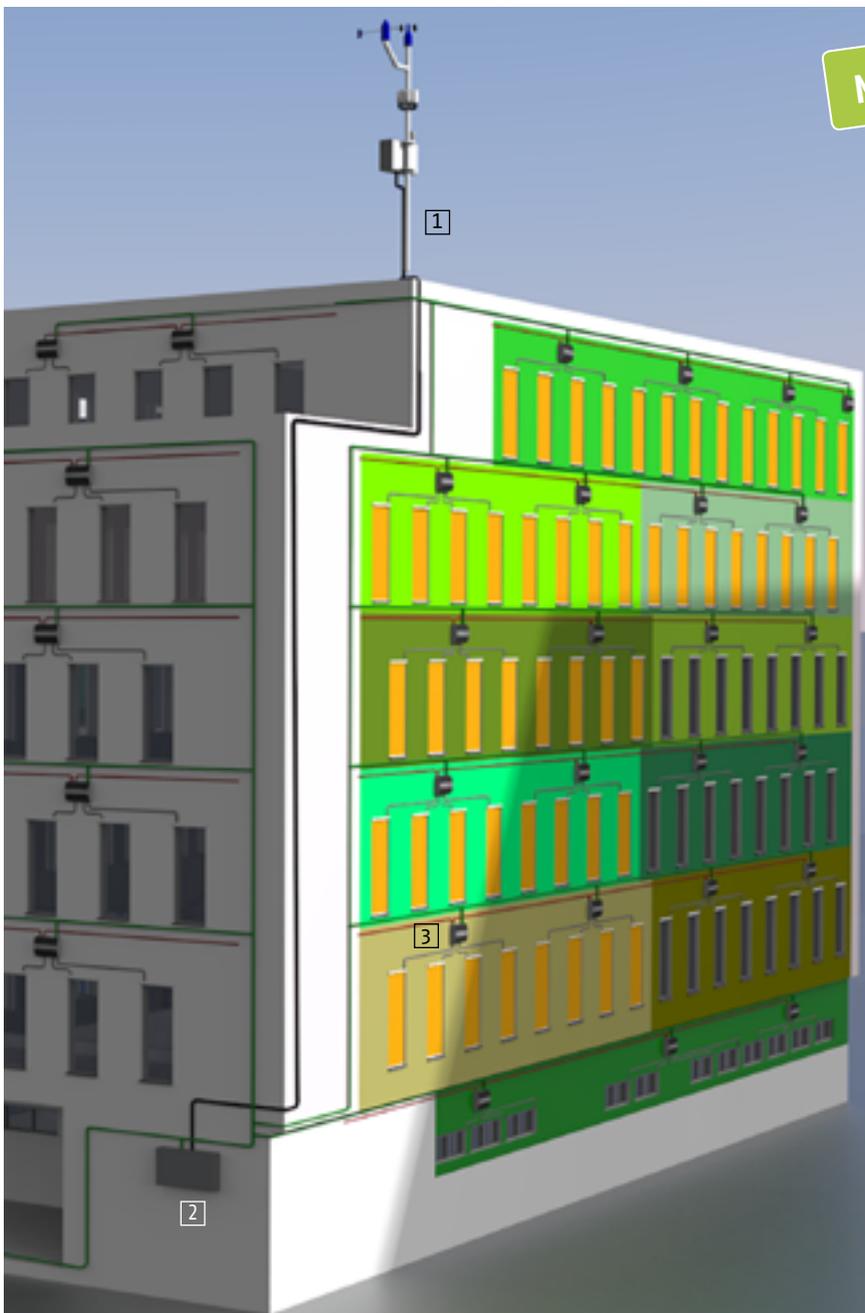
## Products installed

						
+	+	+	+	+	+	+
<b>KNX Master Control</b> Ref. 1 860 187	<b>KNX 4 AC Motor Controller</b> Ref. 1 860 114	<b>Sensor Station Extended</b> Ref. 9 013 727	<b>KNX-RTS Receiver</b> Ref. 1 860 191	<b>KNX-EnOcean receiver</b> Ref. 1 860 229	<b>Telis 4 Modulis</b> Ref. 1 810 664	<b>Smooove Origin IB</b> Ref. 1 811 272

## Automatic functions

- Wind safety, as well as wind direction dependent
- Sun automatic with sun tracking including zone based shadow management to provide a maximum of user comfort and energy saving
- Movement detectors are used to switch between the energy saving mode and comfort functions. The movement detectors are integrated into the bus system using the universal binary inputs of the Motor Controller.

## Installation details



All the Motor Controllers are connected to the same KNX network via the animeo KNX Master Control.

One KNX Building Controller enables to creation of up to 16 zones. Additional zones can be created by adding more KNX Master Controls.

The Sensor Station is directly linked to the KNX Building Controller and each zone is separately managed depending on the weather and other parameters to be defined.

1. Sensor station
2. animeo KNX Master Control
3. animeo KNX Motor Controller

**Case study****Challenger, Paris – France****Initial Brief**

In 2014, the French construction group Boygues finished the renovation of all of its headquarters buildings which were built in 1988 and have a total area of 67,000 m<sup>2</sup>.

In accordance with the most stringent environmental and energy efficiency specifications, the Challenger site in the Parisian suburb of Guyancourt is the first building to achieve a triple certification, awarded three of the highest environmental ratings with LEED "Platinum", BREEAM "Outstanding" and HQE "Exceptional".

Somfy was introduced to the Challenger project as a supplier for the motors of the Venetian blinds and an intelligent blinds system to improve user comfort and building's energy performance.

**Reasons to use animeo KNX**

For the management of the blind system Somfy used a complete KNX-network compatible automation system: this enables an intelligent management of the blinds according to weather conditions while communicating via the KNX network with other building systems such as air conditioning, heating and lighting, to optimize the buildings' overall performance.

System programming can be customized according to the buildings' thermal and user comfort needs.

For the occupants a web remote control has been implemented at 2.600 working places. The user can comfortably control his environment directly from the desktop.

**Technical information**

- 4,500 J002 motors
- 12 Master Control W2
- 1,150 KNX Motor Controller 4AC
- Web Remote Control for 2600 users

# animeo LON

- System topology
- Benefits
- Products
- Project example
- Case study

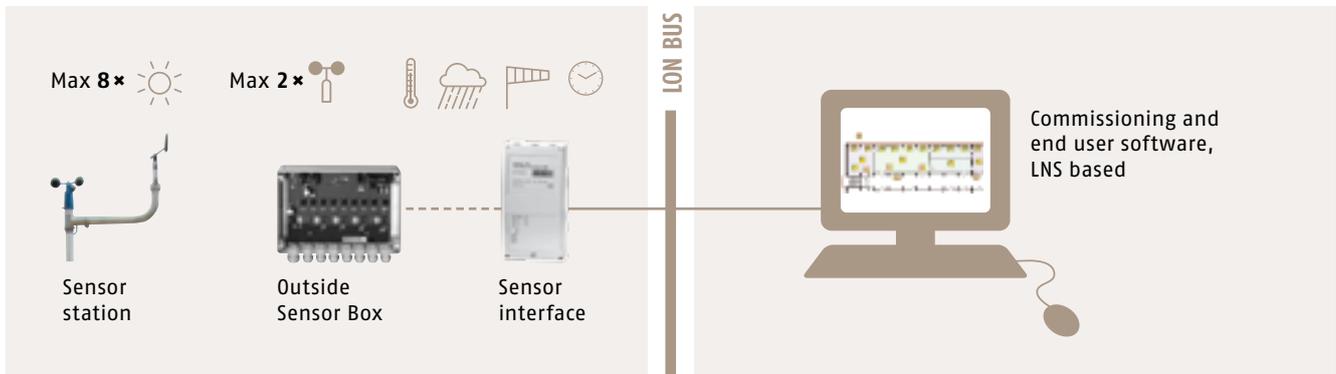


# animeo LON

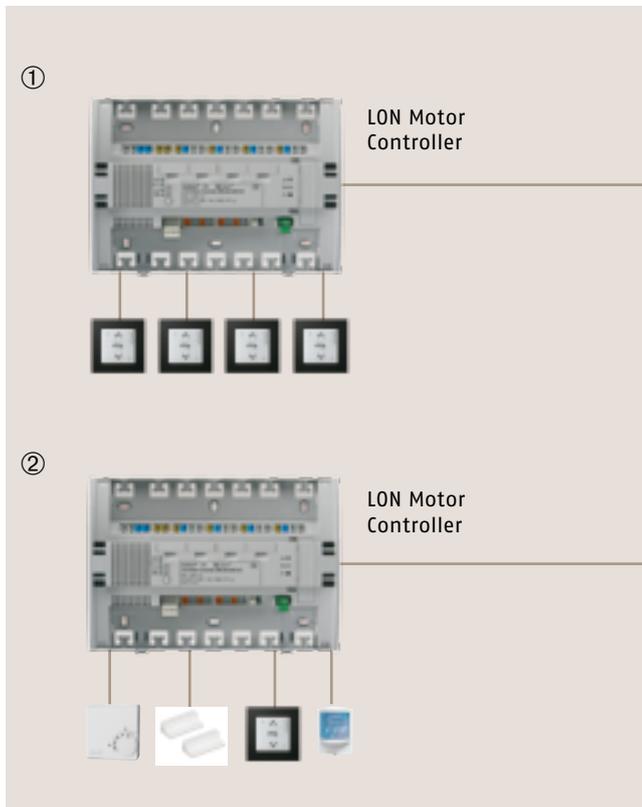
Interactive façade management system compatible with LON standards.  
 Multifunctional Motor Controller to control all types of blinds and window coverings.  
 RTS Module for flexible integration of remote controls with the LON network.

## System topology

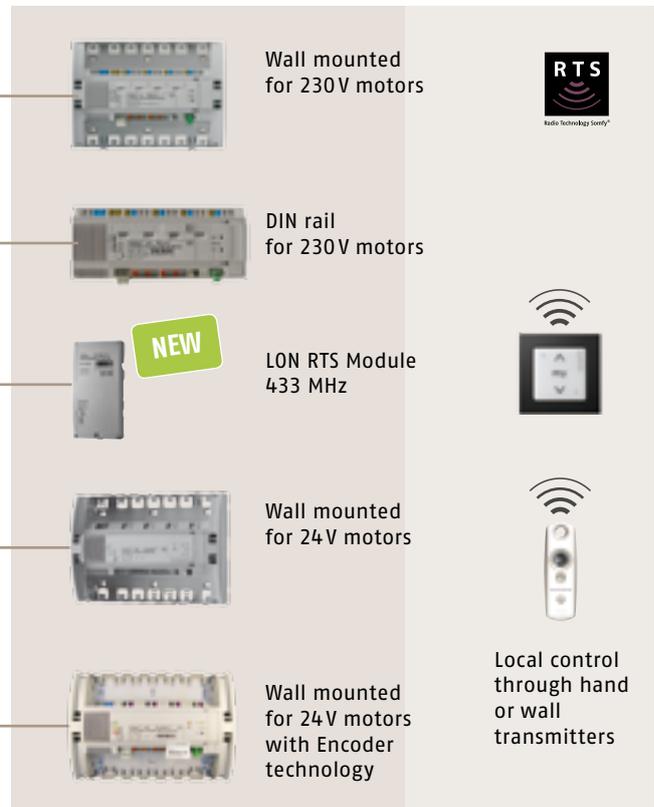
### LON Sensor Interface



### Application example



### Motor Controllers



## Benefits

### Window based shadow management



This solution impacts the movement of the sun protection based on the shadow projected on the window.

Thus, each solar protection is individually controlled to ensure optimum comfort for the user and less artificial lighting.



### Multi-functional radio control

With the animeo LON RTS Module up to 30 freely definable channels are available for free binding of Somfy RTS signals to the LON network.

Applications such as blinds, lighting, heating, cooling and ventilation can be controlled through local RTS remote or wall controls.



### Meeting today's LONMark standards

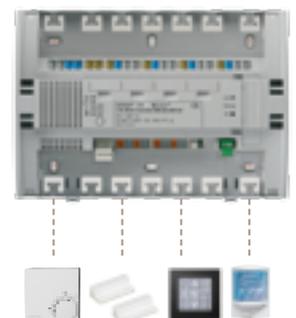
4 integrated LONMark #6111 "sunblind controller" - objects with a variety of functions such as sun, sun tracking, wind, wind direction, rain, frost and temperature for maximum flexibility - in one unique product.

Each output acts as an independent controller. The priorities for these functions are freely configurable.

### More advantages

- Advanced pre-programmed functions such as sun tracking.
- Cost savings: up to 8 local push button binary inputs can be used additionally as universal LON inputs so that e.g. window contacts, temperature sensors or presence detectors can be connected.
- Using an input signal, a LON output signal can be generated: types are setting, switch, scene or occupancy.

The central logic, Building Controller, is embedded in the Motor Controller.



## Motor Controller

### LON 4 AC Motor Controller WM + DRM



For roller shutters, screens, exterior Venetian blinds and windows. To control of 4 × 230 V AC motors.



#### Product benefits

- Cost savings through use of 8 freely-definable binary inputs.

#### Further features

- Easy accessible safety fuse by output.

Further technical features are explained in full in the operating instructions.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating temperature	0° C to + 45° C
Operating voltage	230 V AC
Output voltage	230 V AC
Max. current consumption (motor)	max. 3.15 A per output

<b>LON 4 AC Motor Controller WM</b>	Ref. 1 860 115
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For wall-mounted installation.

Dimensions (w × h × d)	210 × 90 × 61 mm
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<b>LON 4 AC Motor Controller DRM</b>	Ref. 1 860 119
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For DIN-rail installation, 12 SUs

### LON 4 DC Motor Controller WM



For interior blinds, interior Venetian blinds and windows. To control 4 × 24 V DC motors. External 24 V DC power supply (see accessories).

#### Product benefits

- Cost savings through use of 8 freely-definable binary inputs.
- Configurable slat turning speed for optimum user ergonomics.

#### Further features

- Outputs protected through current detection.

Further technical features are explained in full in the operating instructions.

Dimensions (w × h × d)	255 × 180 × 61 mm
Degree of protection	IP 20
Protection class	III
Operating temperature	0° C to + 45° C
Operating voltage	24 V DC
Output voltage	24 V DC
Max. current consumption (motor)	max. 2.1 A per output

<b>LON 4 DC Motor Controller WM</b>	Ref. 1 860 281
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For wall-mounted installation.

### LON 4 DC/DC-E Motor Controller WM



For interior blinds, interior Venetian blinds. To control 4 × 24 VDC or DC-E Somfy Encoder Motors from the "Somfy Concept 25" series.

#### Product benefits

- Easy installation: integrated 230 VAC power supply.
- Cost savings through use of 8 freely-definable binary inputs.
- Especially precise positioning of the slats in conjunction with the Somfy DC Encoder Motor and the Somfy CTS winding system.

- Precise positioning of the Venetian blind.
- Local setting of intermediate position and user ergonomics.
- Configurable slats-turning speed for optimum user ergonomics.

#### Further features

- Outputs protected through current identification.

Dimensions (w × h × d)	255 × 180 × 63 mm
Degree of protection	IP 20
Protection class	II
Operating temperature	0° C to + 40° C
Operating voltage	230 V AC
Output voltage	24 V DC
Max. current consumption (motor)	max. 0.5 A per output

<b>LON 4 DC/DC-E Motor Controller WM</b>	Ref. 1 860 279
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For wall-mounted installation.

<b>LON 4 DC/DC-E Motor Controller DRM</b>	Ref. 1 860 280
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For DIN-rail installation, 12 SUs

## Radio control accessories

### LON RTS Module

NEW



The RTS Module 433 MHz is a gateway for the transmission of Somfy RTS radio signals to the LON network.

The device can be integrated into any LON network and is suitable for any Lonmark conform controller.

#### Product benefits

- Three individually configurable binary inputs are available to integrate wired room sensors such as presence, temperature, brightness and window contacts.
- Placement of the device within the LON topology fully independent of the location of the animeo LON Motor Controller or other LON controllers
- Flexible installation: suspended ceiling/raised floor, under-window or wall-mounted wiring channels.

#### Further features

- Up to 30 freely definable channels are available for free binding of Somfy RTS signals to the LON network.
- Overriding of automatic commands: allows the setting of intelligent switching between manual and automatic operation to guarantee excellent user-friendliness and energy savings in conjunction with the animeo LON Motor Controllers.
- Allows the binding of Somfy RTS signals with Lonmark conform lighting controllers for switching or dimming of luminaires.

Dimensions (w × h × d)	90 x 180 x 45 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100 - 240 V AC / 50/60 Hz
Operating temperature	0° C to + 45° C
Radio frequency	433 MHz
Radio range	20 m through 2 walls
<b>LON RTS Module</b>	Ref. 1 860 239

## Sensors and accessories

### LON Sensor Interface



Sensor interface to connect one Outside Sensor Box for transmitting sensor values to the LON Bus.

#### Product benefits

Three universal inputs to connect additional sensors. For each of the universal inputs one of the following applications can be selected: 0-10 V, 4-20 mA or NTC.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>LON Sensor interface</b>	Ref. 1 860 161
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### Outside Sensor Box



The Outside Sensor Box is the interface between external sensors and LON Sensor Interface. All measurement values are evaluated here and sent to the LON Sensor Interface. It requires an external 24 V AC/DC power supply.

#### Product benefits

- All sensors incl. Outside Sensor Box can be fixed to the Sensor Station mast.
- Up to 8 sun sensors, 2 wind sensors, 1 wind direction sensor, 1 rain sensor, 1 outside temperature sensor as well as a DCF plug module can be connected to the Outside Sensor Box.

Dimensions (w × h × d)	235 × 207 × 90 mm
Degree of protection	IP 65
Protection class	III
Operating voltage	24 V AC/DC
Operating temperature	- 30° C to + 70° C

<b>Outside Sensor Box</b>	Ref. 9 001 606
For wall-mounted installation.	

### Lightning protection



To protect the controls inside. Used in conjunction with the Outside Sensor Box or Compact Sensor.

<b>Electronic lightning protection power supply</b>	Ref. 9 001 629
<b>Electronic lightning protection RS 485</b>	Ref. 9 001 630

### Power Supply DRM 24 V 1.5 A



To supply the Outside Sensor Box without heated sensors.

Dimensions (w × h × d)	78 × 93 × 56 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output voltage	24 V DC
Output current	1.5 A

<b>Power Supply DRM 24 V DC 1.5 A</b>	Ref. 9 017 611
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### Power Supply DC



To supply power to the DC Motor Controller. In the application of "Somfy Concept 25" motors, up to 2 LON Motor Controller 4 DC can be supplied by one power supply (= 8 motors). Switchable also in parallel: 2 × 4.5 A = 9 A.

Dimensions (w × h × d)	130 × 180 × 61 mm
Degree of protection	IP 20
Protection class	II
Operating voltage	230 V AC
Output current	2.5 A (switch on duration 100%) 4.5 A (switch on duration 50%): 3 min. on, 3 min. off)

<b>Power Supply DC</b>	Ref. 1 860 093
For wall-mounted and DIN-rail installation.	

## Sensors and accessories

### Wind Sensor



To measure wind speed in connection with the Outside Sensor Box.

#### Product benefits

- Provides reliable and precise wind speed measurement.
- High resilience and durability by precision bearing.

Dimensions	Height 200 mm, $\phi$ 240 mm max. $\phi$ -mast: 48 mm
Degree of protection	IP 65
Wiring recommendations	2 x 0.8 mm

<b>Wind Sensor</b>	Ref. 9 001 608
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### Heated Wind Sensor



To measure wind speed in connection with the Outside Sensor Box. Recommended for geographical areas with strong winter periods.

#### Product benefits

- Provides reliable and precise wind speed measurement during the winter period.
- High resilience and durability by precision bearing.

Dimensions	Height 190 mm, $\phi$ 240 mm max. $\phi$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 x 1.5 mm <sup>2</sup>

<b>Heated Wind Sensor</b>	Ref. 9 140 180
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### Wind Direction Sensor



To measure wind direction in connection with the Outside Sensor Box.

#### Product benefits

- Minimises the number of individual wind speed sensors installed to improve the façade aesthetics.
- Very good starting value by magnetic contact-free measure principle.
- Winter and offshore usable.
- High resilience and durability by precision bearing.

Dimensions	Height 303 mm, Arrow length 515 mm, max. $\phi$ -mast: 48 mm
Degree of protection	IP 54
Wiring recommendations	5 x 1.5 mm <sup>2</sup>

<b>Wind Direction Sensor</b>	Ref. 9 013 807
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### Outside Temperature Sensor



To measure exterior temperatures in combination with the Outside Sensor Box.

#### Product benefits

- Precise measurement of exterior temperature values which can be displayed in °C or °F in the KNX Master Control W2/W8 solution.
- Protective housing to prevent measurements influenced by spiders and birds
- Delivered with solar radiation sensor protective housing.

Dimensions	Height 150 mm, $\phi$ 115 mm
Degree of protection	IP 65
Wiring recommendations	2 x 0.8 mm

<b>Outside Temperature Sensor</b>	Ref. 9 001 611
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## Sensors and accessories

### Rain Sensor Ondeis



Capacitive sensor to measure precipitation with UV-opaque and UV stabilized housing. 24 V DC and 230 V AC version available.

#### Product benefits

- Fast, simple and flexible assembly. Wall assembly or installation on standard 50 mm diameter mast.
- 24 V DC power supply provided directly through the Outside Sensor Box (ref. 9001606).
- Delivered with a 2.30 m cable (2 x 0.75 mm<sup>2</sup>).

Dimensions (w × h × d)	115 × 100 × 85 mm
Degree of protection	IP 44
Wiring recommendations	3 × 1.5 mm

<b>Rain Sensor Ondeis 24 V DC</b>	Ref. 9 016 344
<b>Rain Sensor Ondeis 230 V AC</b>	Ref. 9 016 345

### Sun Sensor



Sun sensor to measure of luminosity in connection with the Outside Sensor Box.

#### Product benefits

- Small unique design to allow the integration directly on the external façade.
- Complete pack including the sun sensors and brackets (ref. 9127888).
- Spring clamp connectors for save and solid wiring to the Outside Sensor Box.

Dimensions (w × h × d)	34 × 88 × 47 mm
Degree of protection	IP 43
Protection class	III
Wiring recommendations	2 × 0.8 mm
Angle position	150°

<b>Sun Sensor w/o mounting bracket</b>	Ref. 9 050 100
<b>Mounting bracket for Sun Sensor</b>	Ref. 9 127 888
<b>Complete pack</b>	Ref. 9 154 043

### Sensor Station



The Sensor Station consists of an aluminium mast with pre-mounted and pre-wired Outside Sensor Box, 4 sun sensors, 1 wind sensor and 1 outside temperature sensor. The Sensor Station can be equipped with additional sensors such as sun sensors and a rain sensor. Wall brackets included.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for exact positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions/mast height	3200 mm
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<b>Sensor Station</b>	Ref. 9 013 726
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## Sensors and accessories

### Sensor Station extended



The sensor station extended consists of an aluminum mast with a pre-mounted and pre-wired Outside Sensor Box, 8 sun sensors, 1 wind speed sensor, 1 wind direction sensor, a rain sensor and an outside temperature sensor.

#### Product benefits

- Reduced installation time thanks to pre-mounted construction components and pre-wired individual sensor devices.
- Compass included in delivery for precise positioning of the sensor station.
- Indication of north direction.
- Position of pre-mounted and pre-wired sun sensors is clearly indicated for exact façade orientation.

Dimensions/mast height	3200 mm
<b>Sensor Station extended</b>	Ref. 9 013 727

### Mast without sensors



Individual mast for sun, wind and rain sensors

Dimensions/mast height	3200 mm
<b>Mast without sensors</b>	Ref. 9 014 301

### Mast extended without sensors



Mast extended without sensors and Outside Sensor Box. Incl. accessories for wind direction sensor.

Dimensions/mast height	3200 mm
<b>Mast extended without sensors</b>	Ref. 9 014 302

### Roof mounting



To install the Sensor Station on a roof. Stainless steel.

<b>Roof mounting</b>	Ref. 9 014 300
<b>Strain connection for roof mounting only</b>	Ref. 9 014 303

## System accessories

### Shadow Device

NEW



The LON Shadow Device stores the relevant data which is derived from building model provided through Somfy. It is essential in conjunction with the animeo LON Motor Controller to realize window based shadow management for buildings.

#### Product benefits

- The device is provided with a shadow data base which derives from a building model created by Somfy service and expertise.
- Stores up to 4,000 shadow zones based on a building model.
- Connects easily through a standard RJ45 network connector to the LON network.

#### Further features

- Intuitive network configuration (IP) through a Somfy web page.
- The shadow database can simply be uploaded through an USB port.

Dimensions (w × h × d)	100 × 175 × 50 mm
Degree of protection	IP 20
Protection class	II
Supply voltage	100 - 240 V AC / 50/60 Hz
Operating temperature	-0° C to + 45° C
<b>Shadow Device LON</b>	<b>Ref. 1 860 253</b>

⚠ The implemented shadow data base which is derived from a model created through Somfy service and expertise will be invoiced with a separate fee in addition to the Shadow Device. The amount of this fee depends on the size of the building and the Somfy service and expertise. The Somfy service and expertise is responsible for supplying the shadow data base.

## System accessories

### LON Logic module



LON Logic module for system integration.

#### Product benefits

- Built-in OPC XML-DA server.
- Alarming, scheduling and Trending (AST™).
- Compliant with CEA-709, CEA-852 and ISO/IEC 14908 standard (LonMark System).
- Supports TP/FT-10 or IP-85 (Ethernet/IP).
- Support of dynamically created or static NVs.
- Support of CEA-709 user-defined NVs (UNVTs) and configuration properties (SCPTs, UCPTs).
- CEA-709 Remote Network Interface (RNI) with 2 MNI devices (LINX-100 only).
- Modbus TCP and Modbus RTU (Master or Slave).
- Integrated web server for device configuration and monitoring data points.
- Access to network statistics.
- Configurable via Ethernet or TP/FT-10.

Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

<b>LON Logic module incl. scheduler</b>	Ref. 1 860 170
For DIN-rail installation 6 SUs.	

### LON to LON Gateway

Gateway for transmitting telegrams between 3 LON/IP and 2 TP/FT-10 segments.

#### Product features

- Provides data interchange across domain boundary and different LNS databases.
- Functionality by mapping input to output NV's (e.g. to overcome alias limitations).
- Configurable via LNS plug-in.
- Port 1: 100 Base-T (LON/IP).
- Port 2-3: 2 x TP/FT-10 (LON).

Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

<b>LON to LON Gateway</b>	Ref. 1 860 172
For DIN-rail installation 6 SUs.	

### LON BACnet Gateway



Gateway for transmitting telegrams between LON and BACnet networks.

#### Product features

- Supports mapping of dynamic network variables to BACnet server objects.
- Supports alarming, scheduling, calendar and trending in BACnet and LON networks.
- Configurable via LNS plug-in.
- 3 ports: 1 x TP/FT-10, 1 x BACnet MS/TP 1 x Ethernet (IP-852, BACnet/IP)

Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

<b>LON BACnet Gateway</b>	Ref. 1 860 171
For DIN-rail installation 6 SUs.	

### 8 Port UTP 10/100 Mbit/s 100Base-FX SNMP managed switch

#### Product features

- Number of 10/100 Mbps RJ45-Ports: 8 (auto-sensing).
- Number of 100 Mbps fiber optic SC-Ports: 1 (multi and single mode with MT-RJ options).
- 128 VLANs, switch-type: layer 2.
- WEB browser based management.
- SNMP MIB II network management.
- LED display for power, port speed/link activity and FDX/COL.

Operating voltage	100 - 240 V AC 50/60 Hz
Dimensions (w × h × d)	440 × 255 × 44 mm

<b>8 Port UTP 10/100 Mbit/s 100Base-FX SNMP managed switch</b>	Ref. 1 860 189
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### LON Repeater

LON Repeater between 2 LON TP/FT or TP/LP LON network segments.

Operating voltage	12-35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

<b>LON Repeater</b>	Ref. 1 860 190
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## System accessories

### LON / IP Router



#### Product benefits

- Simplifies the topology.
- Accelerates data transmission.

#### Further features

- Preferably used as LON / IP backbone router.
- Built-in web server for easy configuration.
- Integrated EIA-852 configuration server.
- Protocol analysis via LPA-IP tool.
- For one TP/FT-10 channel

Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

**LON/IP 1 × 100 Base-T (Ethernet)  
1 × TP/FT-10 port**

Ref. 1 860 174

For DIN-rail installation 6 SUs.



For two TP / FT-10 channel

Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	105 × 86 × 60 mm

**LON/IP 1 × 100 Base-T (Ethernet)  
2 × TP/FT-10 port**

Ref. 1 860 175

For DIN-rail installation 6 SUs.

For four TP / FT-10 channels



Operating voltage	12 - 35 V DC / 12 - 24 V AC 50/60 Hz max. 200 mA@24 V
Dimensions (w × h × d)	160 × 86 × 60 mm

**LON/IP 1 × 100 Base-T (Ethernet)  
4 × TP/FT-10 port**

Ref. 1 860 176

For DIN-rail installation, 8 SUs

### LON USB Interface



USB Interface connecting LON networks via TP/FT-10 or TP/XF-1250 segments.

#### Product benefits

- Compatible with LNS applications in high performance LNS / VNI access mode.
- Simultaneous operation of LNS applications and LPA or LSD tools.
- Software driver for Windows XP/ Server 2003/Vista/Seven/Server 2008.

Network	TP/FT-10 (78 kbps) TP/XF-1250 (1.25 Mbps)
Power Supply	via PCI-Bus (250 mA)
Dimensions (w × h × d)	135 × 96 × 20 mm

<b>LON - USB interface</b>	Ref. 1 860 173
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### LON Terminator



Bus terminator for TP/FT-10 segments.

#### Product benefits

For 2 TP/FT-10 segments in free or line topology.

Dimensions (w × h × d)	85 × 17 × 60 mm
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<b>LON Terminator</b>	Ref. 1 860 177
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## Local controls

### Smoove IB Origin



Manual control of several motors over IB bus. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

Smoove IB Origin

Ref. 1 811 272

### Smoove 1 RTS Origin



Manual control of several motors over RTS. Comfortable central control or group operability. Operation via the big UP, DOWN and STOP buttons is possible at any time.

Smoove 1 RTS Origin

Ref. 1 811 218

### Smoove 1 RTS



1 channel on-wall radio transmitter to communicate with the RTS radio module.

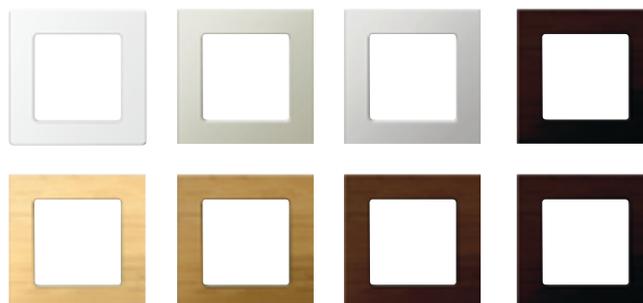
Dimensions (w × h × d)	50 × 50 × 10 mm
Degree of protection	IP 30
Protection class	II
Operating voltage	3 V (battery model CR 2430)
Operating temperature	0° C to + 60° C
Operational conditions	dry living rooms
Radio frequency	433.42 MHz

#### Smoove 1 RTS

• Pure shine	Ref. 1 810 873
• Black shine	Ref. 1 810 902
• Silver shine	Ref. 1 810 904
Adapter disc for other switching programs	Ref. 9 016 911

For wall-mounted installation.

### Smoove frames



#### Smoove frames

• Pure	Ref. 9 015 022
• Silver Lounge	Ref. 9 015 024
• Silver Mat	Ref. 9 015 025
• Black	Ref. 9 015 023
• Light Bamboo – wood finish	Ref. 9 015 027
• Ambergris Bamboo – wood finish	Ref. 9 015 026
• Cherry – wood finish	Ref. 9 015 236
• Walnut – wood finish	Ref. 9 015 237
• Double frame pure	Ref. 9 015 238

## Local controls

### Telis 1 RTS



Pure Silver Lounge Patio

1 channel handheld radio transmitter, control of one or several motors by radio.

Telis 1 RTS = 1 channel: single or group operation possible.

#### Telis 1 RTS

• Pure	Ref. 1 810 630
• Silver	Ref. 1 810 637
• Lounge	Ref. 1 810 649
• Patio	Ref. 1 810 642

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 1 Modulis RTS



Pure Silver Lounge

1 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.

#### Telis 1 Modulis RTS

• Pure	Ref. 1 810 974
• Silver	Ref. 1 810 975
• Lounge	Ref. 1 810 976

Scope of delivery: handheld transmitter including wall brackets and battery.

## Local controls

### Telis 4 RTS



Pure Silver Lounge Patio

5 channel handheld radio transmitter, manual control of one or several motors by radio.

Telis 4 RTS = 5 channels: single or group operation possible.

#### Telis 4 RTS

• Pure	Ref. 1 810 631
• Silver	Ref. 1 810 638
• Lounge	Ref. 1 810 651
• Patio	Ref. 1 810 644

Scope of delivery: handheld transmitter including wall brackets and battery.

### Telis 4 Modulis RTS



Pure Silver Lounge

5 channel handheld radio transmitter, manual control of one or several Venetian blind motors by radio.

Comfortable manual alignment of the slats using the scroll wheel.  
Telis 4 Modulis RTS = 5 channels: single or group operation possible.

#### Telis 4 Modulis RTS

• Pure	Ref. 1 810 765
• Silver	Ref. 1 810 663
• Lounge	Ref. 1 810 664

Scope of delivery: handheld transmitter including wall brackets and battery.

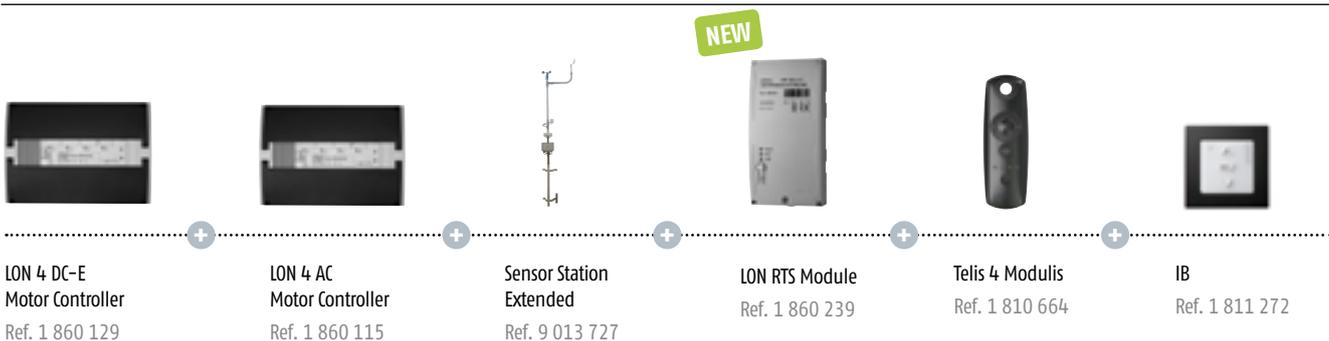
## Project example

### Functionality required and specified by the building owner

- Unlimited number of zones to control interior Venetian blinds and window openers.
- Window-based shadow management.
- Control of blinds and light through Somfy RTS and wired local control.
- Integration of local wired switches through binary inputs per Motor Controller.



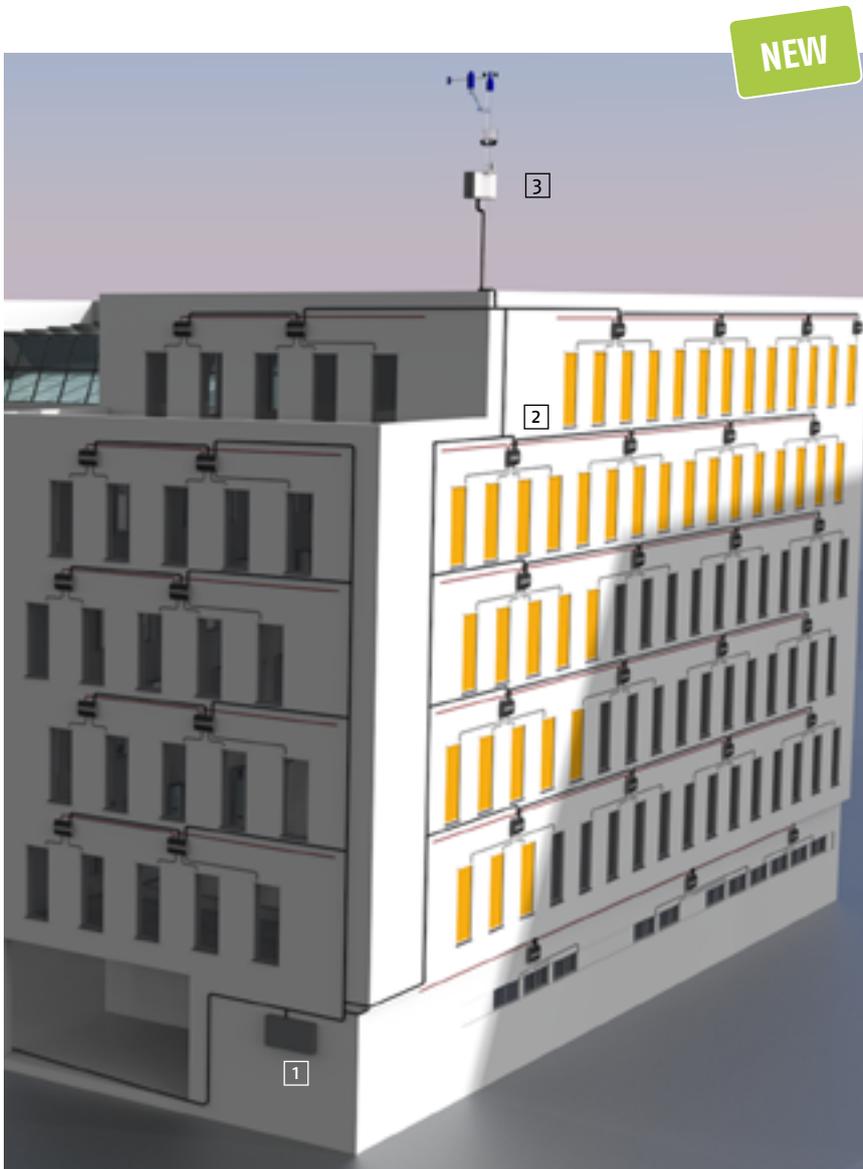
## Products installed



## Automatic functions

- Wind safety, as well as wind direction dependent to monitor window openers.
- Sun automatic with sun tracking including window based shadow management to provide a maximum of user comfort and energy saving.
- Integration with a Building Management System (BMS) via an OPC link.
- Movement detectors are used to switch between the energy saving mode and comfort functions. The movement detectors are integrated into the bus system using the universal binary inputs of the Motor Controller.

## Installation details



The LON network enables creation of any network topology for all LON products installed (Motor Controllers/ Sensor Station).

No zone or size limitation as a window can be defined as a single zone.

The sensor station is directly linked to the LON network without the need of a Building Controller.

1. Building Management System
2. Motor Controller LON
3. Sensor Station

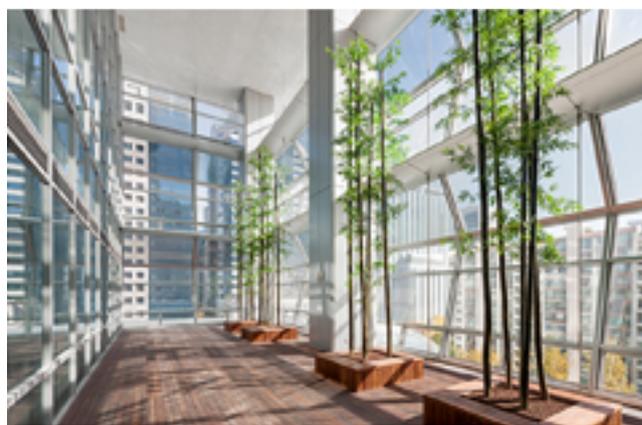
## Case study

### FKI Tower, Seoul – Korea

#### Initial Brief

The new head-office building for the Federation of Korean Industries (FKI), located in the Yeoido District of Seoul, was completed in December 2013. The 240 m tower comes with a specifically designed innovative exterior wall.

The use of building-integrated photovoltaic panels was seen as an architecturally appealing way to meet the strict zoning requirement, while the optimization of the panels became a driving factor in developing the architectural concept.



#### Reasons to use animeo LON

To comply with the city's low energy plan Somfy Korea suggested using animeo LON whose open protocol is able to control motorized roller screens, HVAC and lighting. As a result of this the FKI tower was the first commercial building to receive the EPI 1st grade (Energy Performance Index), which is the highest score for sustainable design awarded by the Korean Institute of Civil engineering and Building Technology (KICT).

#### Technical information

- Application: Roller blinds
- 2,858 Sonesse 40 motors
- 172 animeo LON 4 Motor Controller
- 564 IB+ 4 AC Motor Controller
- 736 LON RTS Cards
- 742 Telis 4 RTS Pure local controls
- 395 Situo RTS 447 MHz local controls



