

Connectivity Ecosystem

Application note

Generation 2

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It works simply together



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CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

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1 Introduction

This application note describes widgets for Somfy and Danfoss.

Somfy Blind – for blind control.

Somfy Garage – for garage door control.

Somfy Motor – for showing position of blinds, identifications and count of cycles performed.

Danfoss Floor Heating – for setting floor heating and air temperature.

Design is ready for further customization, including functionality enhancement.

Picture below shows default design of widgets.

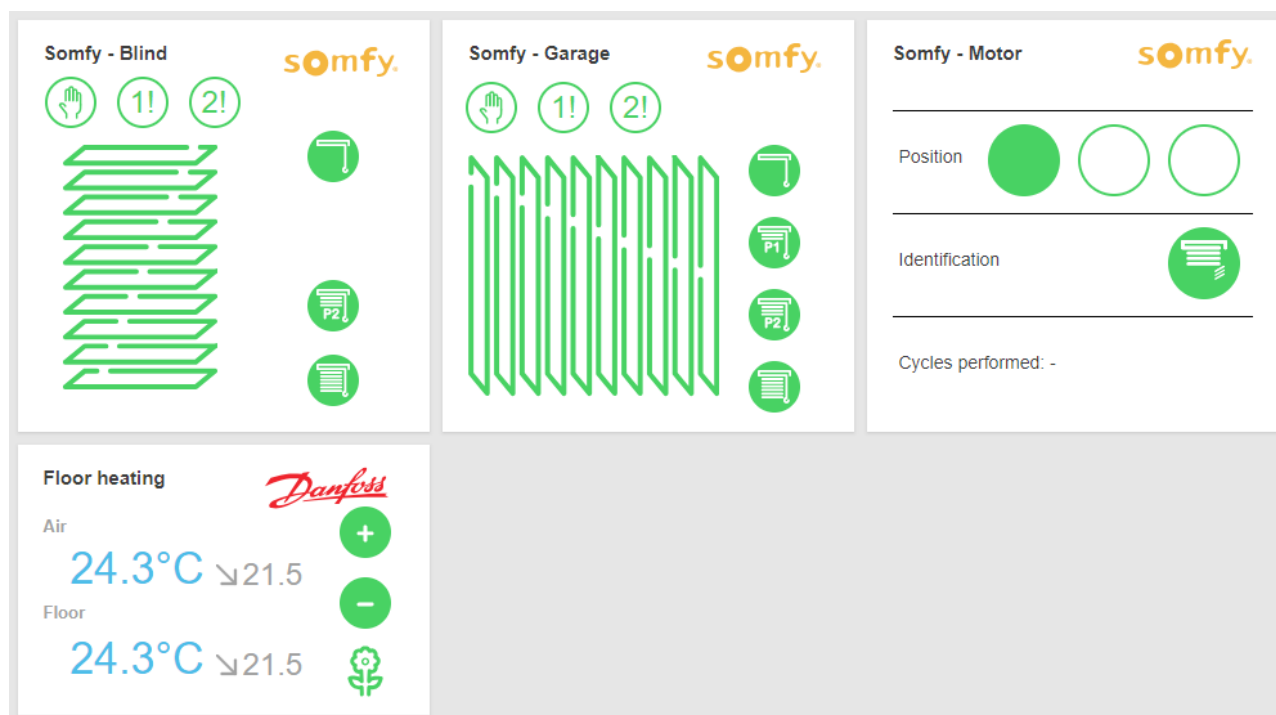


Figure 1: Somfy and Danfoss widgets.

2 Touch visualization

In this chapter you will get to know about touch visualization, what the widget is and how to add it to the dashboard.

Touch visualization is easy, fast and neat looking visualization in fraction of time comparing with visualization. As its name says it is perfect for touch screen devices. Pre-made widgets covering all basic automation needs.

2.1 Touch config

Visualization structure can contain multiple floors. Floors can contain multiple rooms. Rooms then can be filled with pre-made widgets. Actual position in structure is displayed in the middle at the bottom - marked with blue rectangle.

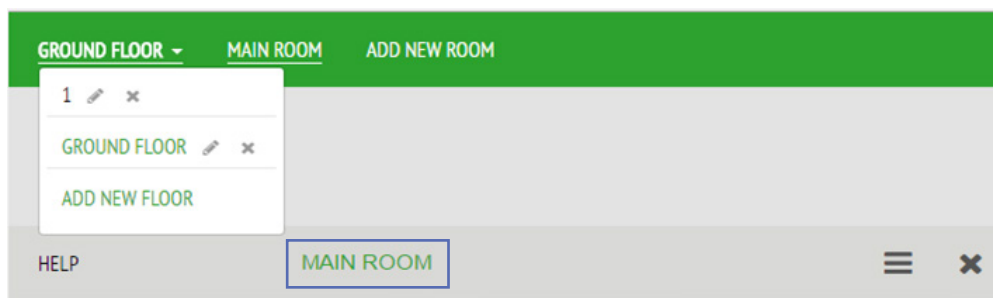


Figure 2: Visualization structure.

2.2 Adding widgets

Widgets can be added to the rooms by pressing **ADD NEW WIDGET** icon located at the right bottom of the page.

Added widget name, properties and object's binding must be filled!

* symbol – mandatory object , ** symbol – one of mandatory objects

When object contain Alert field it will generate Alert message when alarm condition is met. All widgets are shown on "Figure 1: Somfy and Danfoss widgets."

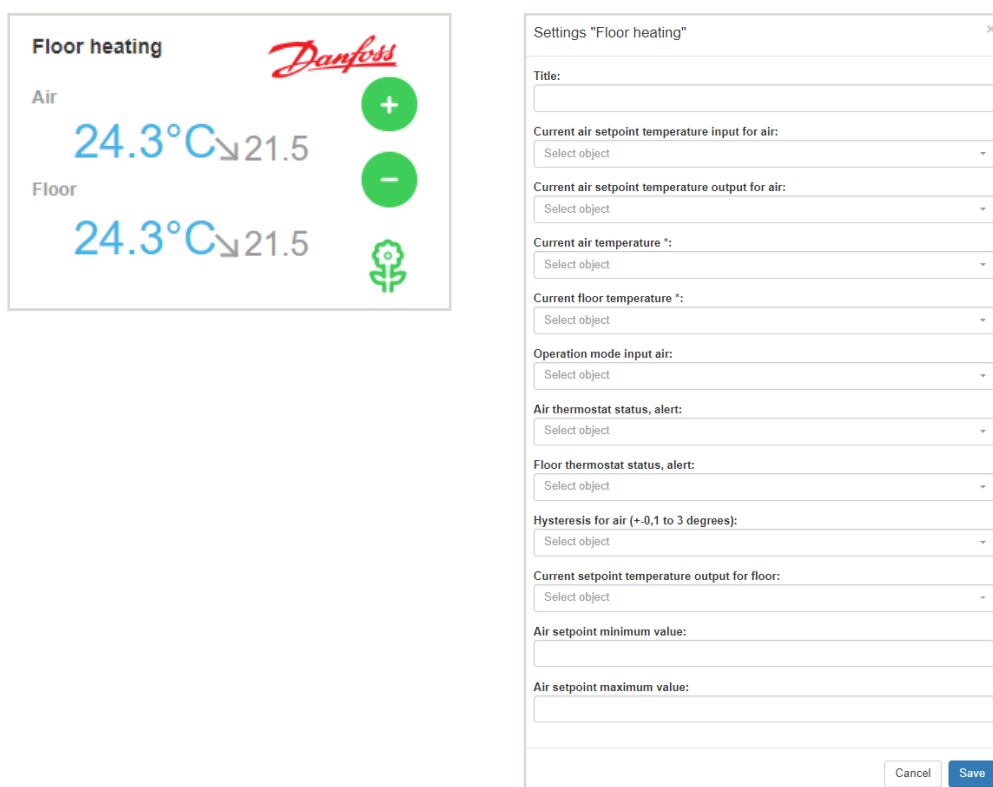


Figure 3: Widget and its properties.

3 Somfy

Schneider Electric provides three different widgets for Somfy. These widgets can be used for control of blinds, garage doors and blind motors. Unused functions are automatically hidden.

3.1 Somfy Blind widget

This widget can be used for blind control. Choose this widget from a list of widgets, it will be shown in default size. Picture below shows the widget after selecting from the list and adding it to the dashboard.

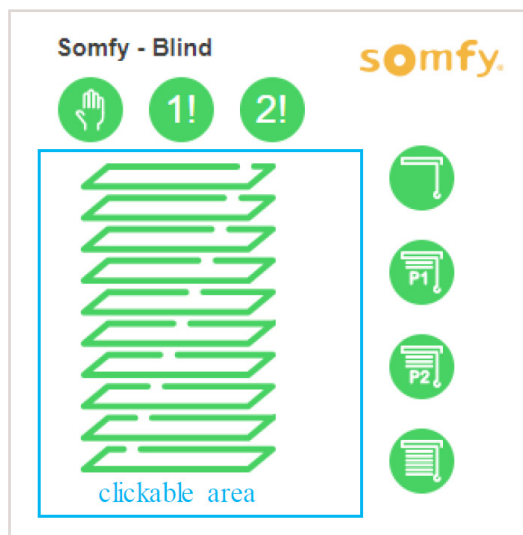


Figure 4: Somfy Blind in a list of widgets.

If click inside of clickable area (blue rectangle), then position of slats will be set. See table below for explanation of individual icons function.










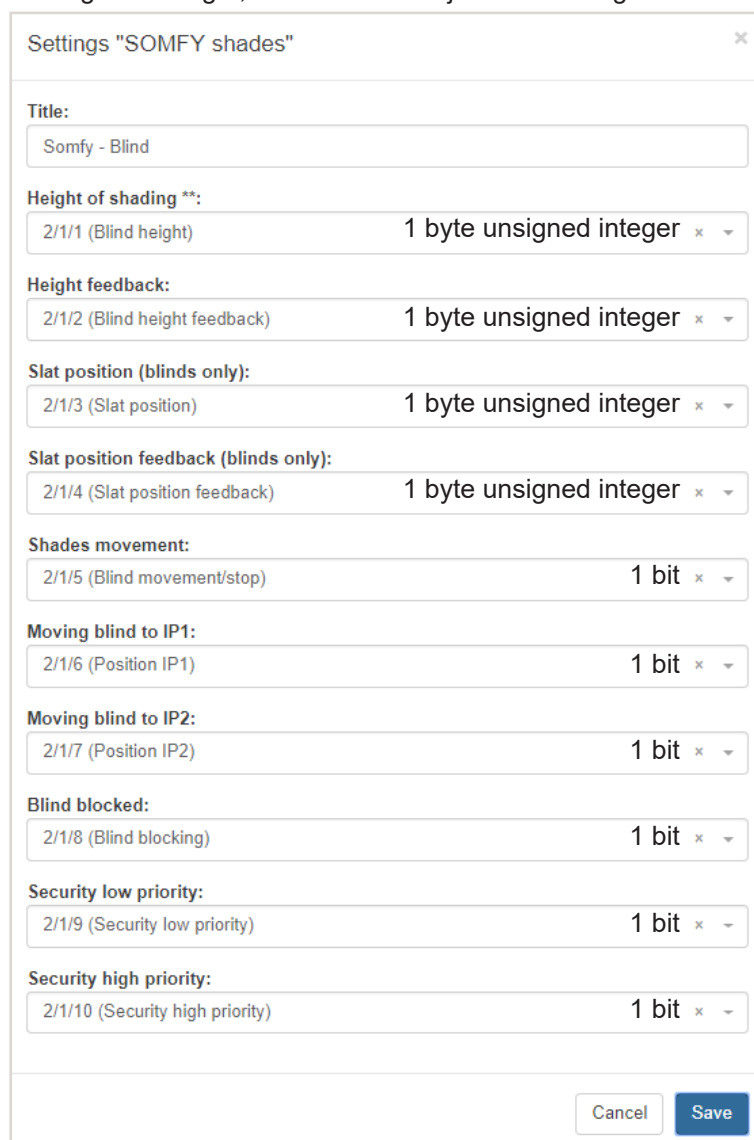
 	Icon change its color to green when blinds are in blocked state. Icon will be white if inactive. Object - Blind blocked.
	Object - Security low priority.
	Object - Security high priority.
	Blinds completely up.
	Preset 1 of slats. Object - Moving blind to IP1.
	Preset 2 of slats. Object - Moving blind to IP2.
	Blinds completely down.

Table 1: Somfy Blind - icons meaning.

Go from Main page to Touch config and click on icon  in upper right corner after moving over widget, see the list of objects for settings like in the picture below.



Settings "SOMFY shades" ✕

Title:
Somfy - Blind

Height of shading **::
2/1/1 (Blind height) 1 byte unsigned integer ✕ ▾

Height feedback:
2/1/2 (Blind height feedback) 1 byte unsigned integer ✕ ▾

Slat position (blinds only):
2/1/3 (Slat position) 1 byte unsigned integer ✕ ▾

Slat position feedback (blinds only):
2/1/4 (Slat position feedback) 1 byte unsigned integer ✕ ▾

Shades movement:
2/1/5 (Blind movement/stop) 1 bit ✕ ▾

Moving blind to IP1:
2/1/6 (Position IP1) 1 bit ✕ ▾

Moving blind to IP2:
2/1/7 (Position IP2) 1 bit ✕ ▾

Blind blocked:
2/1/8 (Blind blocking) 1 bit ✕ ▾

Security low priority:
2/1/9 (Security low priority) 1 bit ✕ ▾

Security high priority:
2/1/10 (Security high priority) 1 bit ✕ ▾

Cancel Save

Figure 5: Somfy Blind object settings.

Set objects for *Slat position (blinds only)* and *Slat position feedback (blinds only)*, the widget will become bigger and expand settings by set an angle of slats.

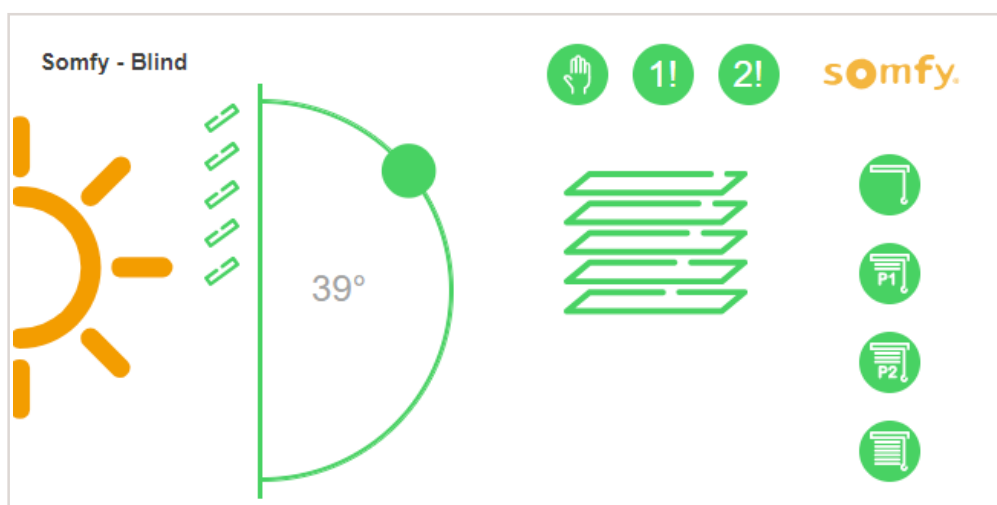


Figure 6: Somfy Blind widget with set slat position object.

3.2 Somfy Garage widget

Somfy garage widget is very similar to Somfy blind widget but with the difference of vertical position of blinds instead of horizontal. There are the same control buttons as in Somfy blind widget as can be seen in the picture below. It can be used for garage doors control, fences control etc.

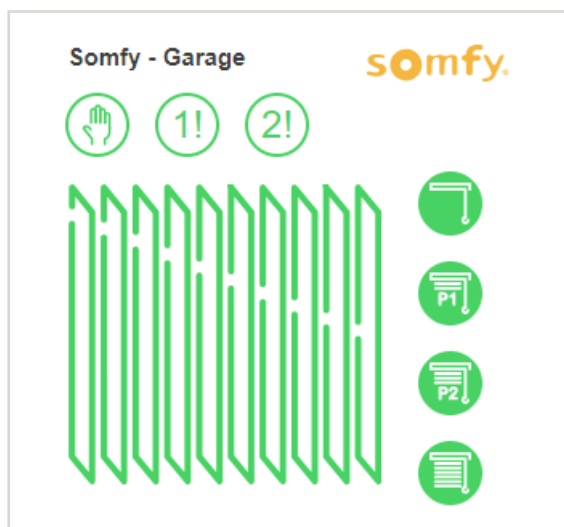



Figure 7: Somfy Garage widget.

Go from Main page to Touch config and click on icon  in upper right corner after moving over widget, see the list of objects for settings like in the picture below.

Settings "SOMFY garage"

Title:
Somfy - Garage

Height of shading **:
3/1/1 (Garage height) 1 byte unsigned integer

Height feedback:
3/1/2 (Garage height feedback) 1 byte unsigned integer

Shades movement:
3/1/3 (Blind movement/stop garage) 1 bit

Moving blind to IP1:
3/1/4 (Position IP1 garage) 1 bit

Moving blind to IP2:
3/1/5 (Position IP2 garage) 1 bit

Blind blocked:
3/1/6 (Blind blocking garage) 1 bit

Security low priority:
3/1/7 (Security low priority garage) 1 bit

Security high priority:
3/1/8 (Security high priority garage) 1 bit

Reversing running order:
3/1/9 (Reversing running order) 1 bit

Cancel Save

Figure 8: Somfy Garage object settings.

3.3 Somfy Motor widget

This widget shows information about blinds motor properties. The widget is divided into three parts – Position, Identification and Cycles performed. The first part shows information about blinds position in percentage, if the blinds are fully up and if there is an error. The second part is used for identification of blinds. Blinds are identified after click icon of blinds. The third part shows number of performed cycles. Picture below shows the widget.

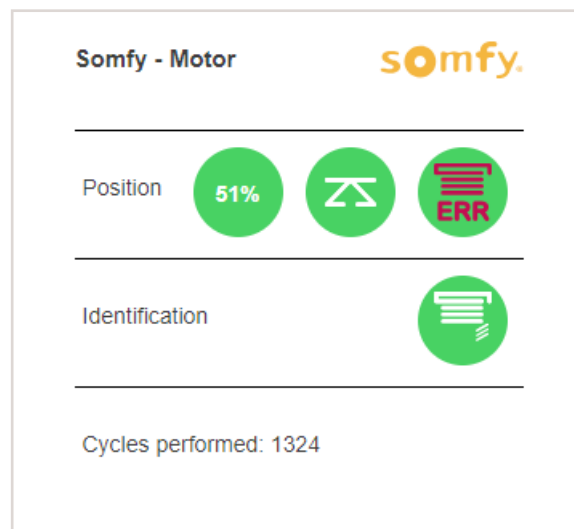


Figure 9: Somfy Motor widget.

The table below shows description of icons in the widget.

	Position of slats in percentage.
	Shows if the slats are up.
	Shows if there is some error.
	Identification of blinds.
1324	Number of performed cycles.

Table 2: Somfy Motor - icons meaning.

Picture below shows settings of objects which are possible to set in this widget.

Settings "SOMFY Motor diagnostics" ×

Motor ID:

Somfy - Motor

Error:

4/1/1 (Motor error) 1 bit × ▼

Motor feedback Upper end:

4/1/2 (Motor feedback upper) 1 bit × ▼

Motor feedback Lower end:

4/1/3 (Motor feedback lower) 1 bit × ▼

Identification:

4/1/4 (Motor identification) 4 byte unsigned integer × ▼

Position percentage:

4/1/5 (Motor position percentage) 1 byte unsigned integer × ▼

Cycles:

4/1/6 (Motor cycles) 4 byte unsigned integer × ▼

Cancel Save

Figure 10: Somfy Motor object settings.

4 Danfoss

Schneider Electric provides widget for Danfoss. This widget can be used for controlling floor heating.

4.1 Danfoss Floor Heating widget



Figure 11: Multitouch Pro.

This widget is primary designed to work with Multitouch Pro devices. It can be easily modified to work with any other RTC (Room Temperature Controller) but input for floor temperature sensor must be available for complete functionality.

This widget is used for floor temperature control. Two temperatures can be set independently. Temperature of the air and temperature of the floor. Monitor temperature of the floor is important to protect floor heating and floor itself against temperature above maximal allowed temperature (maximal temperature allowed by hygienic standards for floor heating is less than 35 °C). Four modes of heating are pre-set.

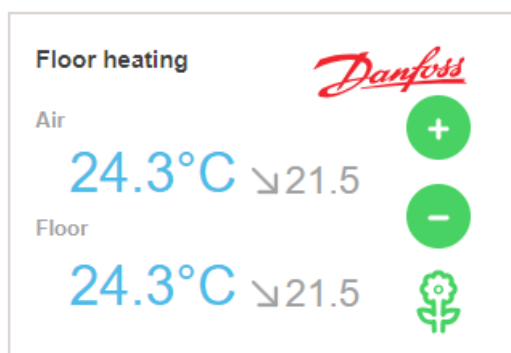


Figure 12: Danfoss Floor Heating widget.

The table below shows description of icons in the widget.







	Increase temperature.
	Decrease temperature.
	Comfort mode.
	ECO mode.
	Night mode.
	Frost protection mode.

Table 3: Floor Heating - meaning of icons.

Reference for Multitouch Pro: [MTN6215-0310](#) and [MTN6215-5910](#).

Picture below shows settings of objects in the floor heating widget.

Settings "Floor heating" ×

Title:

Current air setpoint temperature input for air:

5/1/1 (Current air input) 2 byte floating point × ▼

Current air setpoint temperature output for air:

5/1/2 (Current air output) 2 byte floating point × ▼

Current air temperature *:

5/1/3 (Current air temperature) 2 byte floating point × ▼

Current floor temperature *:

5/1/4 (Current floor temperature) 2 byte floating point × ▼

Operation mode input air:

5/1/5 (Operation mode input) 1 byte unsigned integer × ▼

Air thermostat status, alert:

5/1/6 (Air thermostat status) 1 byte unsigned integer × ▼

Floor thermostat status, alert:

5/1/7 (Floor thermostat status) 1 byte unsigned integer × ▼

Hysteresis for air (+-0,1 to 3 degrees):

5/1/8 (Hysteresis for air) 2 byte floating point × ▼

Current setpoint temperature output for floor:

5/1/9 (Current floor temperature output) 2 byte floating point × ▼

Air setpoint minimum value:

Air setpoint maximum value:

Cancel Save

Figure 13: Floor Heating settings.

5 Appendix

In this chapter you can find useful links for tools, firmware and other things which can help to successfully go through this application note.

5.1 Reference

Document title	Reference
spaceLYnk manual	http://download.schneider-electric.com/files?p_enDocType=User+guide&p_File_Name=AR1796_EdI_User_Guide_spaceLYnk_EN.pdf&p_Doc_Ref=AR1796_EdI_EN
Wiser for KNX manual	http://download.schneider-electric.com/files?p_enDocType=User+guide&p_File_Name=AR1740_EdI_User_Wiser_for_KNX_EN.pdf&p_Doc_Ref=AR1740_EdI_EN
Multitouch Pro MTN6215-0310	https://www.schneider-electric.com/en/product/MTN6215-0310/knx-multitouch-pro%2C-system-m/#search
Multitouch Pro MTN6215-5910	https://www.schneider-electric.com/en/product/MTN6215-5910/knx-multitouch-pro%2C-system-design/#search

Table 4: Reference.

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