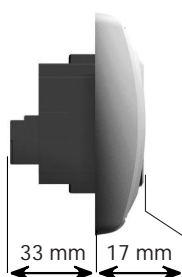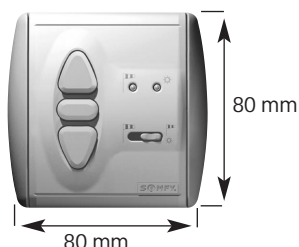# INSTALLATION*guide*

inteo *SOLIRIS IB*

SOLIRIS IB is a wind and sun automatic control system for an Inteo BUS line (IB Bus). The wind speed and amount of sunshine are measured by a combined sensor. A rain sensor can also be connected.

When the sun shines, the awning/blind is activated automatically, either fully or to an individually programmed intermediate position. A dynamic retraction delay avoids frequent activation commands caused by varying light conditions. Manual operation is also possible and the sun function can be switched off.

If the wind is too strong the awning/blind is automatically retracted and manual operation is blocked. The wind function is a safety function and is always activated.

1 Characteristics:

$C\,E$ EN60669 EN50081-1 EN50082-1

|	
Supply:	220 – 240V ~ 50/60Hz
Degree of protection:	IP 40
Class:	II
Operating temperature:	+5°C to +40°C
Environmental conditions:	dry living areas.
Relay contacts load:	500 mA / 50V DC

80 mm

80 mm

33 mm   17 mm

2 Installation:

⚠ *Setting up, testing, commissioning and troubleshooting for this equipment should only be carried out by a trained electrician. Before starting work, disconnect the power to all connecting wires, and take steps to prevent their accidental reconnection. Correct operation is only guaranteed when professionally installed and power supply is adequate.*

2.1   Mounting

SOLIRIS IB is suitable for mounting in a 60 mm Ø concealed connection box or suitable surface mounting cap (Somfy accessories).
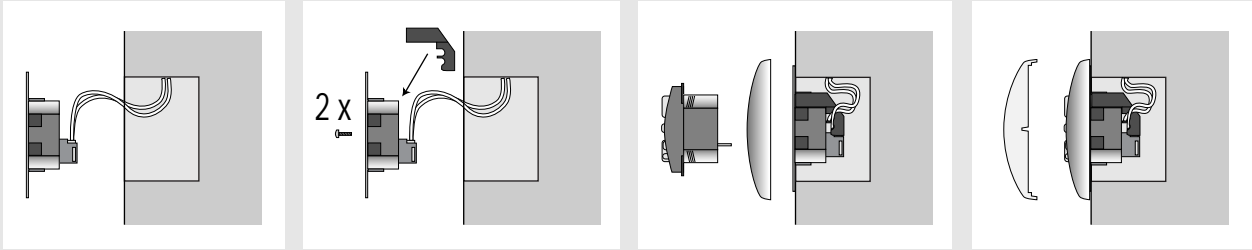

Connect the wires to the terminals of the connecting bracket in accordance with the terminal layout (chapter 2.2).

Press the safety cover onto the back of the bracket then fit this one on the recessed box.
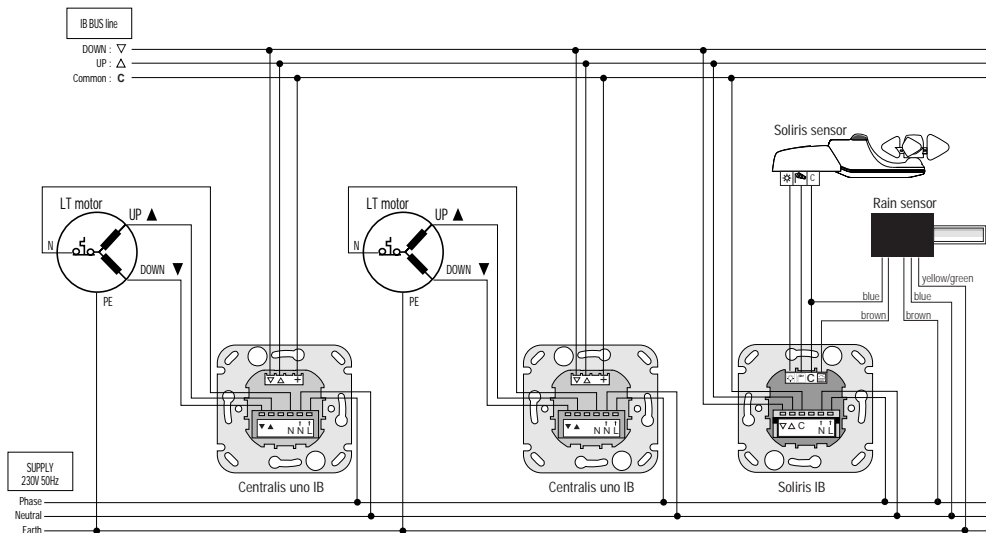*To remove the safety cover, use a screwdriver to press gently in the slot provided inside the terminal block.*

Plug the SOLIRIS IB control unit into the bracket, together with the cover frame.

When setting (chapter 3) and programming (chapter 4) is completed, the cover plate can be clipped onto the control unit.
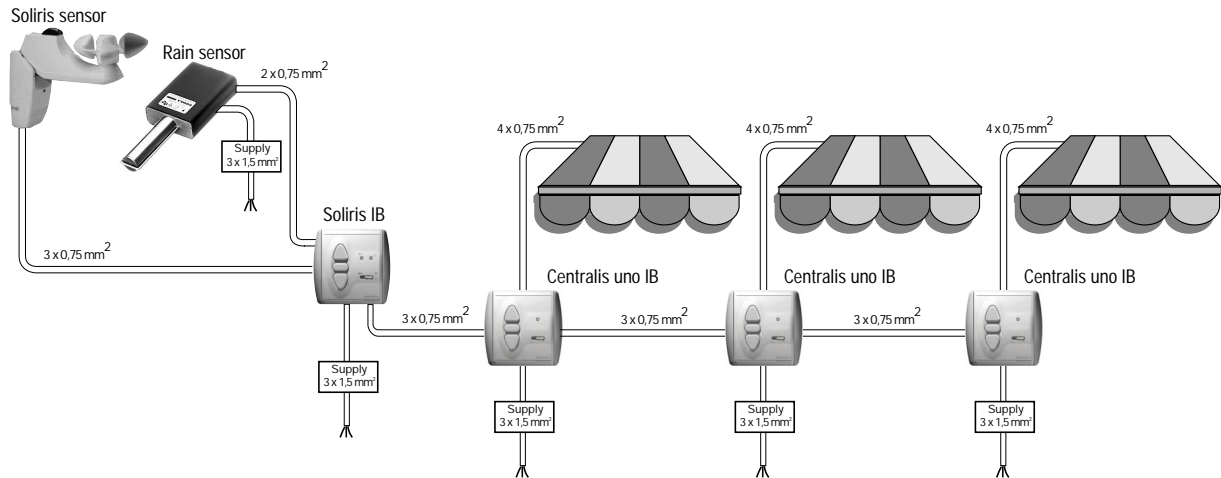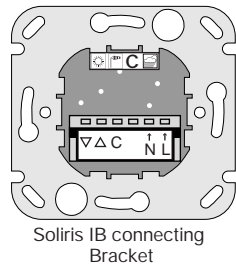

2.2   Terminal layout

Terminal layout

Common   **(C)**
Sun sensor   (☼)
Wind sensor   (🏳)
Rain sensor   (▨)

Soliris IB connecting Bracket

Main Phase   **(L→)**
Main Neutral   **(N→)**
IB Bus common   **(C)**
IB Bus Up   **(△)**
IB Bus Down   **(▽)**

3 Settings:

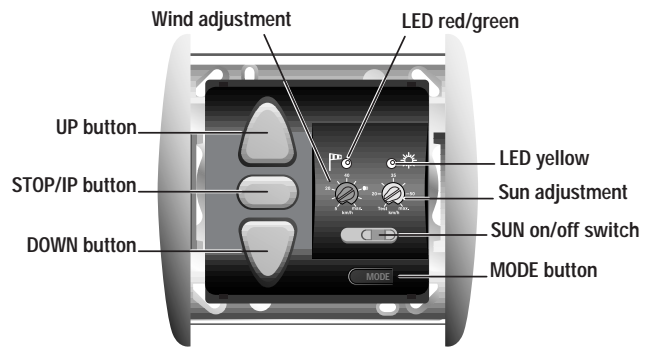## 3.1   Wind and sun controls

The sun control function can be turned on and off using the sliding switch:
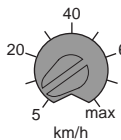
Sun control **ON** : ⬜◉⬜ 🔆
the SOLIRIS IB reacts in accordance with the wind, the sun and with the manual UP/DOWN/STOP commands.

Sun control **OFF** : 🔆 ⬜◉⬜
the SOLIRIS IB reacts in accordance with the wind information and with the manual UP/DOWN/STOP commands.

Wind adjustment   **LED red/green**

UP button

STOP/IP button   **LED yellow**
        Sun adjustment

DOWN button   **SUN on/off switch**
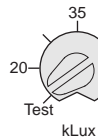   **MODE button**

The potentiometers allow the threshold values for brightness and wind speed to be set.

WIND
Wind speed setting range: 5-80 km/h
Factory setting: approx. 20 km/h

SUN
Brightness setting range: 20-60 kLux
Factory setting: approx. 35 kLux

The wind and sun controls can be checked as follows

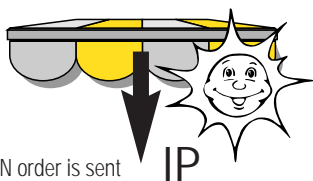- Set the sun control sliding switch to Sun control ON : ⬜◉⬜ 🔆 .

- Set the wind potentiometer to **5 km/h** and the Sun potentiometer to **Test** position

➜ The yellow Sun LED shines continuously : The sun detection is working correctly.
➜ The red Wind LED is illuminated when the anemometer starts to rotate : The wind detection is working correctly.

Sun control operation

When the intensity of the daylight exceeds the threshold set by the SOLIRIS IB, the yellow LED lights on and a DOWN order is sent to the awning after 2 minutes.
The awning goes to the intermediate position IP (see 4.2) or to its down end limit position if no intermediate position has been memorised.

IP

When the daylight level falls below the threshold setting, the yellow LED blinks and the awning is automatically retracted after a variable timing between 30 to15 mins.
This timing depends on the sun presence duration and it avoids frequent movements of the awning on cloudy days.
short period of sun (< 30') ➜ 30 mins. before retraction.
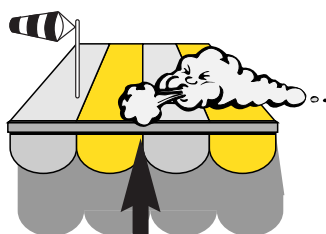long period of sun (> 90') ➜ 15 mins. before retraction.
Moreover, If the daylight falls below 12 kLux, the timing is decreased to approx. 5 minutes to retract the awning more quickly at twilight.

after 30-15 mins. or 5 mins.

Wind control operation

When the wind speed exceeds the threshold set on the SOLIRIS IB, the red LED lights on and the awning is retracted after 2 seconds.
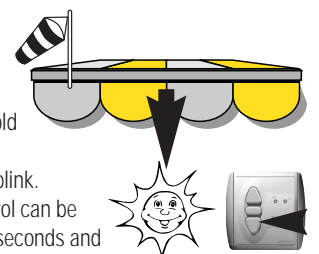
after 2 secs.

All manual or automatic commands are inhibited as long as the wind speed is higher than the adjusted threshold.

When the wind speed falls below the threshold setting, the red LED begins to blink.
A manual control can be given after 30 seconds and an automatic sun control can be given after 12 minutes.

after 12 min.   after 30 sec.

3.2   Rain control

An optional rain sensor with a floating contact can be connected to the SOLIRIS IB. In case of rain, the blind/awning is retracted automatically. The red LED is illuminated. In this situation all manual commands and sun control commands are inhibited. They are again possible as soon as the rain stops.

4 Programming:

The SOLIRIS IB offers a range of extra programmable functions, allowing a greater level of comfort. The additional programming capability of the SOLIRIS IB depends on the operating mode selected (chapter 4.1).

Precondition for programming

During programming, no information (e.g. sun, wind, etc) must come in (LED unlit), set the sun control sliding switch to Sun control OFF ⌐.
It is best to raise the blind/awning to its highest position (retracted).
Once the blind/awning is in its final position (retracted), the relay must have switched off (either automatically after 3 minutes or press the ⊖ button.

4.1   Mode of operation

4.1.1 Awning mode

In awning mode, each time △ or ▽ is pressed this constitutes a move command. This mode is set by default in factory.

Programming awning mode:

Press ▭MODE for approx. 2 seconds. The red and yellow LEDs flash alternately. Then press ▽ for approx. 2 seconds until the yellow LED lights up briefly twice (briefly once – pause – briefly once).

➜ Awning mode is programmed.

4.1.2 Venetian blind mode

In the venetian mode, each time △ or ▽ are pressed briefly, this constitutes a move command.
A slat tilt command can be programmed (chapter 4.3).

Programming venetian blind mode:

Press ▭MODE for approx. 2 seconds. The red and yellow LEDs flash alternately. Then press △ until the red LED lights up briefly twice (briefly once – pause – briefly once).
➜ Venetian blind mode is programmed.

Test: The programming of the operating mode can be tested. Press ▭MODE briefly
➜ the LED allocated to the set operating mode lights up briefly.
Yellow LED : awning mode.
Red LED : Venetian blind mode.
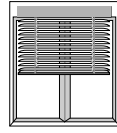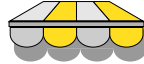
SOMFY   *SOLIRIS IB*

4.2 Freely selectable intermediate position

In awning and venetian blind modes (chapter 4.1) it is possible to program an intermediate position from the UP limit position (awning/blind retracted).
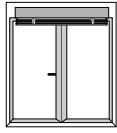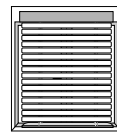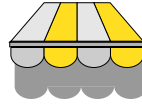
UP limit position   Intermediate position   DOWN limit position

4.2.1 Programming the intermediate position
One The **CENTRALIS uno RTS** (at least) connected on the IB Bus must be set on "auto" position.

1. Move the awning/blind to its UP position (awning/blind retracted).

2. Press ▽ and ⬭ simultaneously for approx. 3 seconds until the awning/blind begins to move down.
➜ the LED shines green.

3. Stop the awning/blind at the position you wish to record as the intermediate position (Correcting the position using △ , ▽ and ⬭ will not affect the programming process.)
4. Press ⬭ for approx. 2 seconds.
➜ The green LED lights off, the intermediate position is programmed.

4.2.2 Reach the intermediate position

If the awning/blind is above the intermediate position, press ⬭ .
➜ The awning/blind will move to the intermediate position.
If the awning is below the intermediate position, nothing happens.

If the Sun control sliding switch is set to sun control On [symbol] and the awning/blind is above the intermediate position, the awning/blind will automatically move to the intermediate position as soon as the brightness exceeds the value set on the Sun potentiometer.

4.2.3 Cancel the intermediate position

The awning/blind must be in the intermediate position. To cancel the intermediate position, press ⬭ for approx. 10 seconds.
➜ The LED will shine red, the intermediate position is now cancelled.

4.3 Slat tilting

In Venetian blind mode (chapter 4.1.2) it is possible to programme a slat tilting operation.

4.3.1 Programming the slat tilting operation
To programme the slat tilting operation an intermediate position must already have been programmed (chapter 4.2).

1. Set the venetian blind at its UP limit position (blind retracted).
2. Press ⬭ .
➜ The blind will move to the intermediate position, the slats are closed.

3. Press △ and ⬭ simultaneously.
➜ After approx. 3 seconds the slats will momentarily move UP and the LED shines green.

4. Adjust the right tilting angle using △ , ⬭ and ▽ .
5. Press ⬭ for approx. 2 seconds.
➜ The green LED lights off, the slat tilting procedure is now programmed.

Intermediate position
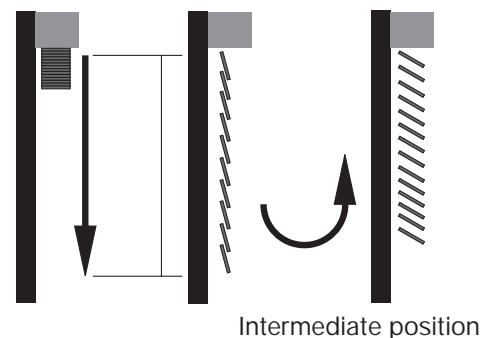
4.3.2 Calling up the slat tilting operation

Once the intermediate position has been reached (chapter 4.2.2), the blind automatically moves upwards with the programmed slat tilt.
If the blind is below the intermediate position and the last order was a DOWN command, you will only get the tilting of the slats by pressing ⬭ .

4.3.3 Cancel the slat tilting operation

To cancel, the blind is moved down from its highest final position (blind retracted) to the intermediate position using the ⬭ button. When it reaches the intermediate position the slat tilting operation automatically opens the slats. To cancel the slat tilting operation, press ⬭ for approx. 10 seconds.
➜ As soon as the red LED is illuminated, the slat tilt and intermediate position are cancelled.

For demonstrating the control functions it is possible to shorten the reaction times of the SOLIRIS IB.
To do this, the SOLIRIS IB can be switched to demo-mode. The maximum movement time from highest to lowest end position in demo-mode is approx. 30 seconds. All other settings and programming will be performed as previously.

TIMINGS

	Normal mode	Demo mode
SUN appearing :	2 min.	10 sec.
SUN disappearing :	15/30 min.	15/30 sec.
WIND appearing :	2 sec.	2 sec.
WIND disappearing :	30 sec. 12 min.	15 sec.
Output relays :	0,5 sec.	0,5 sec.

4.4.1 Demo setting – awnings

In the awning demo setting, each time ⬆ or ⬇ are pressed this constitutes a move command.

Programming the awning demo setting

Press ▭MODE for approx. 2 seconds. The red and yellow LEDs flash alternately. Then press ▭MODE and ⬇ simultaneously until the yellow LED lights up 4 times (twice briefly – pause – twice briefly).
➔ Awning demo setting is programmed.

4.4.2 Demo setting – venetian blind

In the venetian blind demo setting, each time ⬆ or ⬇ are pressed briefly this constitutes a move command.
For venetian blind operation, a slat tilting operation can be programmed (chapter 4.3).

Programming the venetian blind demo setting

Press Mode for approx. 2 seconds. The red and yellow LEDs flash alternately. Then press ▭MODE and ⬆ simultaneously until the red LED lights up 4 times (twice briefly – pause – twice briefly).
➔ venetian blind demo setting is programmed.

Test: The programming of the operating mode can be tested as follows. Press ▭MODE briefly
➔ the LED allocated to the set operating mode lights up twice briefly.
Yellow LED – awning demo setting
Red LED – venetian blind demo setting

Quitting demo mode
To quit the demo mode, program in the desired operating mode, as described in chapter 4.1