

WiSun Wireless Sensor



Wind, Sun Wireless Sensor to be coupled with SEAV electronic control units for the automation of rolling window shutters and sun blinds.

- Mod. **WiSun 433** : 433.92 MHz

TECHNICAL DATA

- Power supply: 230V~ 50/60Hz 3W max.
- Working temperature: -10÷55°C
- Working frequency: see model
- Sensitivity Anemometer: 5 ÷ 40 Km/h
- Sun Sensor Sensitivity: 5 ÷ 40 Klux
- Packaging dimensions: 240x185x110 mm.
- Container: PC UL94V-0 (IP54)

CONNECTIONS OF THE CN1 TERMINAL BOARD

- 1: 230V~ Line input (Phase).
- 2: 230V~ Line input (Neutral).

INITIAL FUNCTIONING CONDITION

The device can only work in conjunction with one or more SEAV electronic control units prearranged for radio reception of information relating to the state of the sensors. For the functioning, it will be necessary to carry out the programming operation of the Wireless Sensor on the control unit to which it will be coupled (see par. "CODE Sending of Radio Identifier"). In the default factory setting, each Wireless Sensor example produced has a different identifier.

WIND SENSOR FUNCTIONING

The device will send to the control unit to which it has been coupled, a closing control every time the set Wind threshold is exceeded.

SUN SENSOR FUNCTIONING

The device will send to the control unit to which it has been coupled, a downward control after 10 minutes of brightness higher to the threshold selected by means of the VR1 trimmer and displayed through the switching on of the SUN MONITOR LED; it will send an upward control after 10 minutes of brightness lower than the selected threshold.

Select send sensor status information Fast / Slow:

The device, through the Connector CN3 allows you to select the radio sending of information about the status of Sun sensor so Fast (= 2 minutes) or slow (Slow = 10 minutes).

In the factory configuration the selection of radio transmission speed is kind of slow (CN3 pos. 3-4), to speed up the reaction time of the sun sensor (commands sent every 2 min-utes about instead of every 10), place CN3 pos. 4-5.

The operation must be performed with the sensor is not powered.

Regulation of sensitivity to the Sun (5 + 40 Klux)

The device allows to regulate the intervention threshold due to brightness, by means of the VR1 trimmer. The switching on of the SUN MONITOR LED on the device indicates that the Sun intensity exceeds the selected intervention threshold, in this way we will have a reference to the current light conditions to establish the desired one.

PROGRAMMING KEYS AND INDICATOR LED

SEL Key: selects the type of function to memorise, the choice is indicated by the flashing of the LED. By repeatedly pressing the key, it is possible to position oneself on the desired function. The selection remains active for 15 seconds, displayed by the flashing LED, after which the control unit returns to the original status.

SET Key: carries out the programming of the function chosen with the SEL key.

Indicator LED

LED on: option memorised.

LED off: option not memorised.

LED flashing: option selected.

----- MAIN MENU -----		
LED Reference	LED Off	LED On
1) CODE	Send RFID = OFF	Send RFID = ON
2) SPEED	Wind Safety 25 Km/h	Pgm. Wind Safety
3) WIND	Wind Safety = OFF	Wind Safety = ON
4) SUN	Sun Sensor = OFF	Sun Sensor = ON
5) RAIN	Not used	Not used
6) TEST	Test Sensors = OFF	Test Sensors = ON

1) CODE (Sending of Radio Identifier)

The coupling of the Wireless Sensor to a control unit must be carried out as follows: activate the Wireless Sensor programming procedure on the control unit (see control unit technical manual), with the SEL key position yourself on the flashing of the CODE LED and press the SET key for about 1-2 seconds: at the same time, the Sensor will send an identifying code signalled by the flickering of the CODE MONITOR LED.

Check that in the coupled control unit there is confirmation of the occurred Sensor programming (see control unit technical manual). In this way, the Wireless Sensor is coupled to the control unit and it will send to the same controls dependant upon the meteorological conditions.

Repeat the operation in case the same Sensor is to be programmed on other control units.

2) SPEED (Programming of Wind Safety threshold)

Display of the programmed Wind threshold

The display of the wind Safety threshold selection is carried out as follows: with the SEL key position yourself on SPEED LED, the LED will start to double flash for the number of times equal to the wind Safety threshold in the memory (to every double flash of the SPEED LED corresponds an increase of 5 Km/h), (example: 5 flashes of SPEED LED = 25 Km/h).

Selection of the wind Safety threshold from 5 to 40 Km/h

The sensor is supplied with the wind Safety intervention threshold equal to 25 Km/h (SPEED OFF LED).

The programming of the wind Safety threshold selection is carried out as follows: with the SEL key position yourself on SPEED LED and press the SET key to start the programming procedure: at the same time, the SPEED LED will start to double flash; (every double flash of the SPEED LED corresponds to an increase of 5 Km/h), once the desired threshold has been reached, press the SET key; the selected value will be memorised at the same time and the SPEED LED will remain on (example: 5 double flashes of SPEED LED = 25 Km/h).

It is possible to repeat the operation in case of an incorrect programming.

3) WIND (Wind Sensor ON/OFF)

Deactivation of the Wind Sensor

The device is supplied with the Wind Sensor enabled (WIND ON LED).

The deactivation of the Wind Sensor can be carried out as follows: with the SEL key position yourself on the flashing of the WIND LED and press the SET key for an instant: at the same time, the WIND LED will switch off and the Wind Sensor deactivation will be complete. It is possible to repeat the operation to activate the Wind Sensor.

4) SUN (Sun Sensor ON/OFF)

Enabling the Sun Sensor

The device is supplied with the Sun Sensor disabled (SUN OFF LED).

The enabling of the Sun Sensor can be carried out as follows: with the SEL key position yourself on the flashing of the SUN LED and press the SET key for an instant: at the same time, the SUN LED will remain on and the Sun Sensor enabling will be complete. It is possible to repeat the operation to disable the Sun Sensor.

5) RAIN (Not Used)

6) TEST (Test Sensors ON/OFF)

The device is supplied with the Wind - Sun Test Sensors disabled (TEST OFF LED).

The activation of the Wind - Sun - Rain Test Sensors can be carried out as follows: with the SEL key position yourself on the flashing of the TEST LED and press the SET key for an instant: at the same time, the TEST LED will switch on and the activation of the Wind - Sun Test Sensors will be complete. It is possible to repeat the operation to disable the Test Sensors.

Anemometer Test: manually rotate the Anemometer blades and, at the same time, the WIND MONITOR LED will switch on, signalling the radio sending of the necessary information to the previously configured coupled control unit (signalled by the flickering of the CODE MONITOR LED), controlling the ascent for 5 sec.

Sun Sensor Test: rotate VR1 trimmer as far as possible clockwise (in + position) and, at the same time, the SUN MONITOR LED will switch on, signalling the radio sending of the necessary information to the previously configured coupled control unit (signalled by the flickering of the CODE MONITOR LED), controlling the descent for 5 sec. Rotate the VR1 trimmer VR1 anti-clockwise (in - position) and, at the same time, the SUN MONITOR LED will switch off, signalling the radio sending of the necessary information to the previously configured coupled control unit (signalled by the flickering of the CODE MONITOR LED), controlling the ascent for 5 sec.

SENSORS MONITOR

The control unit presents four "monitor" indicator LED with which it is possible to display the radio transmission of the information relating to each sensor.

----- LEDS MONITOR -----		
LED Reference	LED Off	LED On
CODE MONITOR	Info = OFF	Info = ON
WIND MONITOR	Info = OFF	Info = ON
SUN MONITOR	Info = OFF	Info = ON
RAIN MONITOR	Not used	Not used

RESET

In case it is necessary to reset the control unit default factory configuration, press the SEL and SET keys together so that all indicator LED switch on and off at the same time.

IMPORTANT FOR THE INSTALLER

- The device must be permanently connected to the power supply network and not have any type of sectioning device of the 230Vac electric line, it will therefore be under the care of the installer, to provide the plant with a sectioning device. It is necessary to install a single-phase switch with over-voltage category III. It must be positioned so as to be protected against accidental closures.
- For connections (power supply), use flexible cables under insulating sheath in harmonised polychloroprene (H05RN-F) with minimum section of the conductors equal to 0.75 mm²
 - The connection cables must be fixed by assembling cable clamps supplied with the product.
- The device, at the time of installing, must be carefully managed, ensuring to have assembled the composing parts correctly. Pay particular attention to the ceramic plate and to the connecting flat. When re-closing the box, the latter must fold, on itself, in an orderly manner.
- It is very important to establish the exact location so that the product is exposed to the same atmospheric agents as when it is controlled.
- Ensure that the device remains inclined at about 45 degrees (fixing area at top, round extremity of the box at bottom).
- Do not paint or varnish the sensitive surface of the control unit.
- The dirt which builds up on the rain sensor surface limits the sensitivity: it is therefore recommended to clean it once or twice a year with a damp cloth, after having disconnected the automation.
- For a correct functioning, it is recommended to always use only one device for one or more control units installed in an action range of 20 meters.
- Always carry out the tests of the sensors to ensure the correct functioning of the installed system.

IMPORTANT FOR THE INSTALLER

- The device must never be used by children or persons with reduced physical-psychological abilities, unless supervised or trained on the functioning and the use modalities.
- Do not allow children to play with the device.
- ATTENTION: keep this instruction manual and respect the important safety prescriptions contained herein. The non compliance with the prescriptions may cause damages and serious accidents.
- Frequently examine the plant to detect any signs of damaging. Do not use the device if a repair intervention is necessary.

Attention

All operations which require the opening of the casing (cables connection, programming, etc.) must be carried out by expert personnel during installation. For any further operation which requires the casing to be re-opened (re-programming, repair or installation amendments) contact the after-sales assistance.

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are in compliance with the specifics of R&TTE 99/5/EC, EMC 2004/108/EC, LVD 2006/95/EC Directives.

