SxxxA/B

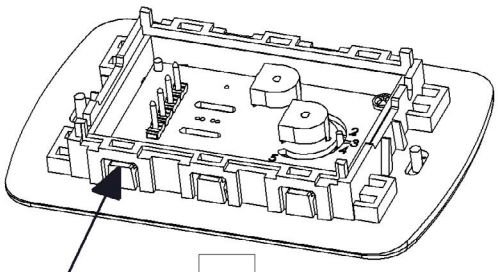
MODEL	DESCRIPTION	CONTROLLER
S1xxA/B	Room sensor with or without set correction; available white or charcoal, wall or flush-mounting; sensing element Balco	series CX and RX
S2xxA/B	Room sensor with or without set correction or with graduated scale; available white or charcoal, wall or flush-mounting; sensing element PTC 1kOhm	series W500
S3xxA/B	Room sensor with or without set correction; available white or charcoal, wall or flush-mounting; sensing element NTC 5kOhm	series NR7xxx
S4xxA/B	Room sensor with or without set correction or with graduated scale; available white or charcoal, wall or flush-mounting; sensing element NTC 10kOhm	series WPRO, MultiNet and NR9xxx
S45xA/B	Room sensor with digital display and set correction; available white or charcoal, wall or flush-mounting;	series WPRO and MultiNet

APPLICATION AND USE

Soavis temperature sensors are employed in heating and air conditioning systems for both civil and industrial purposes. Connected to the relevant controllers, they allow detecting and controlling room temperature. They can be equipped with a potentiometer in order to change the set point.

MANUFACTURING CHARACTERISTICS

Soavis Room sensors can have two different types of installation: flush-mounting using box 503E or wall mountig using the supplied back-plate. Both are composed by a removable front part where you have the electronics, a supporting frame and the back plate if required. The removable front part is compatible with BTicino supporting frame (included) for LivingLight (square) or Living International (round) cover plates and with Vimar supporting frame for Plana cover plates.
The finishing plates (not included) are supplied as optional (see accessories); in case of oder of wall mounting models, BTicino Living International (round) white cover plate is included.
If you need to install Vimar components, the supporting frame can be replaced as shown in the picture below:



Using a screw driver press the snap and push down the removable front part.

TECHINICAL CHARACTERISTICS

General

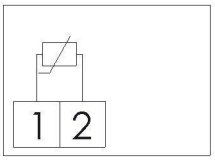
Humidity: 95% R.H. max not condensing
Protection: IP30
Materials: ABS/ASA
Dimensions: look at the picture on page 3
Weight: 0,08kg
Display: LCD 7 segments 3 digit (S45xA/B)

Sensor with NTC 5kOhm sensing element

Sensing element: NTC Thermistor 5kOhm 25°C
Average variation: 290Ohm/°C (negative)
Terminal board: screw terminal for 1,5mm²
Temperature: -10T60°C

Wiring connections:

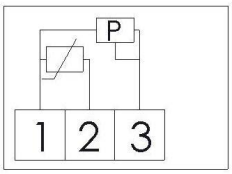
S33xA/B



1	Common
2	Sensor

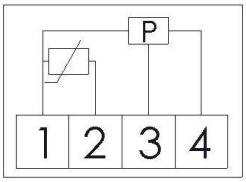
Controlli S.p.A.
16010 Sant'Olcese (GE)
Tel. 010 73 06 1
Fax. 010 73 06 870/871
www.controlli.eu

S32xA/B



1	Common
2	Sensor
3	Potentiometer output (1terminal)

S34xA/B



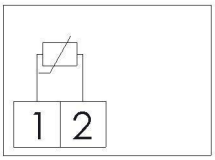
1	Common
2	Sensor
3-4	Potentiometer output (2 terminals)

Sensors with Balco sensing element

Sensing element: BALCO 1kOhm 21,1°C
Average variation: 6,2Ohm/°C
Accuracy: ± 0,8°C
Terminal board: screw terminal for 1,5mm² wires
Temperature: -10T60°C

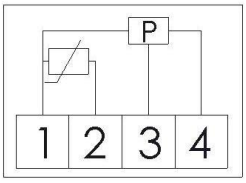
Wiring connections:

S13xA/B



1	Common
2	Sensor

S14xA/B



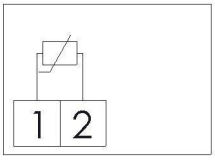
1	Common
2	Sensor
3-4	Potentiometer output (2 terminals)

Sensors with PTC 1kOhm sensing element

Sensing element: PTC 1kOhm 25°C
Average variation: 8Ohm/°C
Accuracy: ± 1°C
Terminal board: screw terminal for 1.5 mm² wires
Temperature:
operating -10T60°C
graduated scale 10T30°C

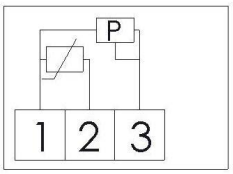
Wiring connections:

S23xA/B



1	Common
2	Sensor

S21xA/B-S22xA/B



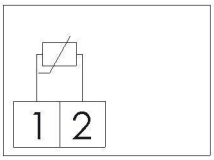
1	Common
2	Sensor
3	Potentiometer output (1terminal)

Sensors with NTC 10kOhm sensing element

Sensing element: NTC 10kOhm a 25°C
Accuracy: ± 1°C
β @ 25° = 3435
Terminal board: screw terminal for 1,5mm² wires
Temperature
operating: -10T60°C
graduated scale 10T30°C

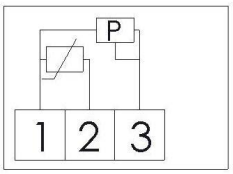
Wiring connections:

S43xA/B



1	Common
2	Sensor

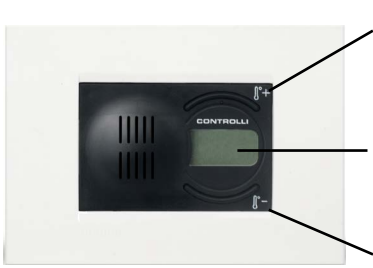
S41xA/B



1	Common
2	Sensor
3	Potentiometer output (1terminal)

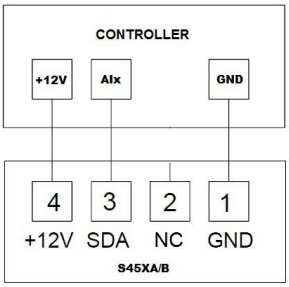
Sensors with DISPLAY (S45xA/B)

The sensors S45xA/B have a LCD with 3 digits to display the room temperature and 2 buttons to set the setpoint temperature.



The sensor transmits the room temperature and the set point through a communication bus and it can be interfaced with WPRO and Multinet series controllers.
The sensor can be configured in order to adjust the set point temperature from +10°C to +30°C (default) or to modify it of ±3°C. To modify the temperature set mode, just press the buttons "+" and "-" simultanesously for 3 seconds and the option "tAr" will be displayed. Press the "-" button and select the option "CnF." Using the "+" button, choose the configuration number 3 to set the sensor with ±3°C variation (any other configuration from 0 to 9 sets the sensor mode to 10T30°C). Wait for the new configuration to be stored and for the display to be back on the main screen. The "tAr" function, instead, allows the user to adjust the value of the room temperature within ±3°C. Select the "tAr" function, then, through the "+" button, select the desired correction set. Wait for the correction set to be stored and for the display to be back on the main screen.

Wiring connections:

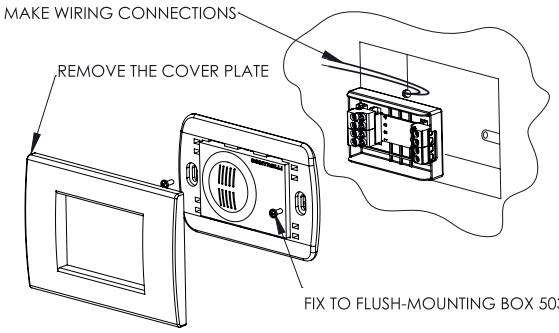


1	Common
2	Not connected
3	DIGITAL Potentiometer output
4	+12Vdc

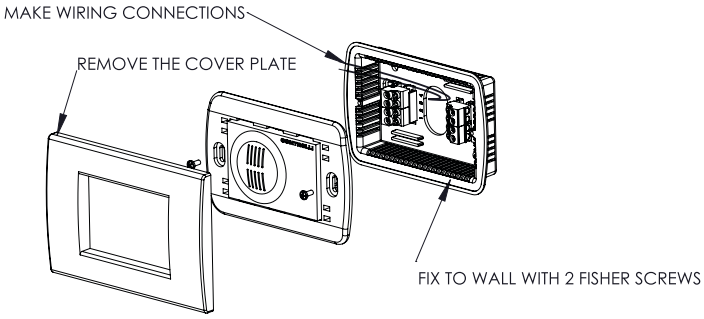
INSTALLATION

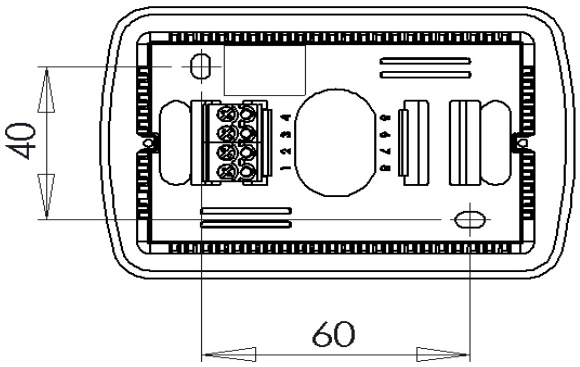
Soavis sensors installation is easy and can be carried out as follows:

Flush-mounting procedure:



Wall mounting procedure:





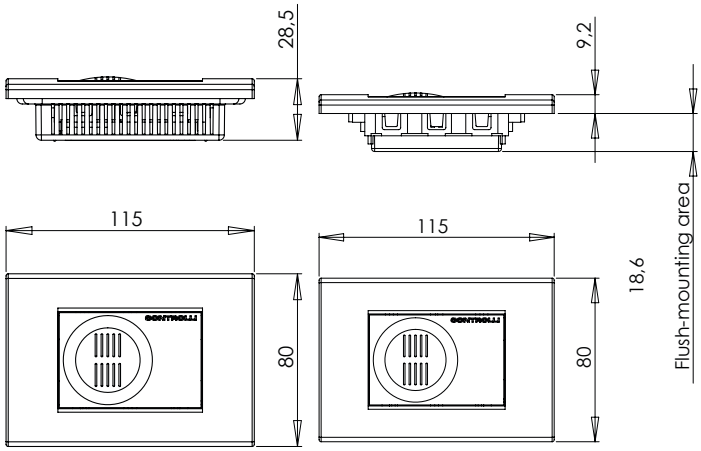
distance between holes

ACCESSORIES

54609-02 BTicino LivingLight cover plate (square)

54609-03 BTicino Living International cover plate (round)

DIMENSIONS [mm]



SXX2X
Wall mounting model

SXX1X
Flush-mounting model

FULL TABLE OF AVAILABLE MODELS

MODEL	SENSING ELEMENT	CHARACTERISTICS		
S131A	Balco	without set correction	flush-mounting	charcoal
S132A	Balco	without set correction	wall mounting	charcoal
S131B	Balco	without set correction	flush-mounting	white
S132B	Balco	without set correction	wall mounting	white
S141A	Balco	with set correction	flush-mounting	charcoal
S142A	Balco	with set correction	wall mounting	charcoal
S141B	Balco	with set correction	flush-mounting	white
S142B	Balco	with set correction	wall mounting	white
S231A	PTC 1K	without set correction	flush-mounting	charcoal
S232A	PTC 1K	without set correction	wall mounting	charcoal
S231B	PTC 1K	without set correction	flush-mounting	white
S232B	PTC 1K	without set correction	wall mounting	white
S221A	PTC 1K	with set correction	flush-mounting	charcoal
S222A	PTC 1K	with set correction	wall mounting	charcoal
S221B	PTC 1K	with set correction	flush-mounting	white
S222B	PTC 1K	with set correction	wall mounting	white
S211A	PTC 1K	with graduated scale	flush-mounting	charcoal
S212A	PTC 1K	with graduated scale	wall mounting	charcoal
S211B	PTC 1K	with graduated scale	flush-mounting	white
S212B	PTC 1K	with graduated scale	wall mounting	white
S331A	NTC 5K	without set correction	flush-mounting	charcoal
S332A	NTC 5K	without set correction	wall mounting	charcoal
S331B	NTC 5K	without set correction	flush-mounting	white
S332B	NTC 5K	without set correction	wall mounting	white
S321A	NTC 5K	with set correction	flush-mounting	charcoal
S322A	NTC 5K	with set correction	wall mounting	charcoal
S321B	NTC 5K	with set correction	flush-mounting	white
S322B	NTC 5K	with set correction	wall mounting	white
S341A	NTC 5K	with set correction	flush-mounting	charcoal
S342A	NTC 5K	with set correction	wall mounting	charcoal
S341B	NTC 5K	with set correction	flush-mounting	white
S342B	NTC 5K	with set correction	wall mounting	white
S431A	NTC 10K	without set correction	flush-mounting	charcoal
S432A	NTC 10K	without set correction	wall mounting	charcoal
S431B	NTC 10K	without set correction	flush-mounting	white
S432B	NTC 10K	without set correction	wall mounting	white
S411A	NTC 10K	with graduated scale	flush-mounting	charcoal
S412A	NTC 10K	with graduated scale	wall mounting	charcoal
S411B	NTC 10K	with graduated scale	flush-mounting	white
S412B	NTC 10K	with graduated scale	wall mounting	white
S421A	NTC 10K	with set correction	flush-mounting	charcoal
S422A	NTC 10K	with set correction	wall mounting	charcoal
S421B	NTC 10K	with set correction	flush-mounting	white
S422B	NTC 10K	with set correction	wall mounting	white
S451A	NTC 10K (integrated)	with display	flush-mounting	charcoal
S452A	NTC 10K (integrated)	with display	wall mounting	charcoal
S451B	NTC 10K (integrated)	with display	flush-mounting	white
S452B	NTC 10K (integrated)	with display	wall mounting	white

LEGEND

S= sensor

1 = Balco 2 = PTC 1K 3 = NTC 5K 4 = NTC 10K	1 = graduated scale 2 = correction of set 3 terminals 3 = no potentiometer 4 = correction of set 4 terminals (2 dedicated to potentiometer) 5 = with display	1 = flush-mounting 2 = wall mounting	A = charcoal B = white

The performances stated in this sheet can be modified without any prior notice