

SpaceLogic Room Units Air Quality Sensors – Analog



Note: A subset of models shown.

Product Description

The SpaceLogic SLA Series of air quality sensors for living space is a flexible multisensor platform for use with BAS controllers designed to accept 4 to 20mA, 0 to 5Vdc or 0 to 10Vdc outputs*. Housings are available in Medium matte white and Optimum faces available in black and white. All housing types are available with three user interface options: touchscreen, LCD with three buttons and blank. CO₂ and temperature sensors are included with all SLA Series air quality sensors. Models with VOC sensors and relative humidity sensors are also available.

Features

- Medium matte white housing or optimum glass panel housing available in white or black
- Field calibratable non-dispersive infrared CO₂ sensor
- Replaceable RH element available in 1% & 2% with NIST certificate
- VOC sensor available
- Temperature output on all models
- 61 mm (2.4") backlit color touchscreen and LCD, three button display options available
 - Digital temperature indication (0.1° display resolution of °F or °C)
 - Digital humidity indication (0.1% RH display resolution)
 - Digital CO₂ indication (0 to 2000 ppm display resolution)
 - Selectable temp, RH and fan speed setpoint (0-10V)
 - Configurable screen/button lock and display timeout
 - Override
- Selectable 4 to 20mA, 0 to 5V and 0 to 10V analog outputs
- 18-24 AWG screw terminals

Available Products Matrix

SLA	Housing <input type="checkbox"/>	User Interface <input type="checkbox"/>	CO ₂ Sensor <input type="checkbox"/>	RH Sensor** <input type="checkbox"/>	Example: SLA <input type="checkbox"/> S <input type="checkbox"/> T <input type="checkbox"/> C <input type="checkbox"/> 2
	S = Medium white matte housing	T = Color touchscreen	C = NDIR CO ₂	2 = 2%	
	W = Optimum white housing	L = 3-button LCD display	CV = NDIR CO ₂ / VOC	X = None	
	B = Optimum black housing	X = None			

** RH elements are replaceable.

USA: +1 888-444-1311
 Europe: +46 10 478 2000
 Asia: +65 6484 7877
www.schneider-electric.com

Life Is On



Specifications

Operating Environment																			
Input power	Class 2; 20 to 30 Vdc, 24 Vac, 50 to 60 Hz																		
Analog output	Selectable 4 to 20 mA, 0 to 5 V, 0 to 10 V																		
Operating temp. range	0 to 50 °C (32 to 122 °F)																		
Operating humidity range	0 to 95% RH non-condensing																		
Housing material	High impact ABS plastic																		
CO ₂ Sensor																			
Sensor type	Non-dispersive infrared (NDIR), diffusion sampling																		
Output range	0 to 2000/5000 ppm (selectable)																		
Accuracy	±30 ppm ±3% of measured value																		
Repeatability	±20 ppm ±1% of measured value																		
Response time	<60 seconds for 90% step change																		
VOC Sensor																			
Sensor type	Solid state																		
Output range	0 to 100% AQI for VOC																		
Accuracy	±15% of measured value																		
Output scale	0 to 1,000 ppb of total VOC (TVOC)																		
AQI table*	<table border="1"> <thead> <tr> <th>Level</th> <th>Ventilation Recommendation</th> <th>TVOC (ppb)</th> </tr> </thead> <tbody> <tr> <td>>61%</td> <td>Greatly increased</td> <td>>610</td> </tr> <tr> <td>20 to 61%</td> <td>Significantly increased</td> <td>200 to 610</td> </tr> <tr> <td>10 to 20%</td> <td>Slightly increased</td> <td>100 to 200</td> </tr> <tr> <td>5 to 10%</td> <td>Average</td> <td>50 to 100</td> </tr> <tr> <td>0 to 5%</td> <td>Target value</td> <td>0 to 50</td> </tr> </tbody> </table>	Level	Ventilation Recommendation	TVOC (ppb)	>61%	Greatly increased	>610	20 to 61%	Significantly increased	200 to 610	10 to 20%	Slightly increased	100 to 200	5 to 10%	Average	50 to 100	0 to 5%	Target value	0 to 50
	Level	Ventilation Recommendation	TVOC (ppb)																
	>61%	Greatly increased	>610																
	20 to 61%	Significantly increased	200 to 610																
	10 to 20%	Slightly increased	100 to 200																
5 to 10%	Average	50 to 100																	
0 to 5%	Target value	0 to 50																	
RH Sensor																			
HS sensor	Thin-film capacitive, replaceable																		
Accuracy	±2% from 10 to 80% RH @ 25°C (77 °F)																		
Hysteresis	1.5% typical																		
Linearity	Included in accuracy specification																		
Stability	±1% @ 20°C (68 °F) annually for 2 years																		
Output range	0 to 100% RH																		
Temperature coefficient	±0.1% RH/°C above or below 25 °C (77 °F) typical																		
Temperature Sensor																			
Sensor type	Solid state, integrated circuit																		
Accuracy	±0.2 °C (±0.4 °F) typical																		
Resolution	0.1 °C (0.1 °F)																		
Range	0 to 50 °C (32 to 122 °F)																		

Display Models

Touchscreen	61 mm (2.4 in), color, backlit, capacitive, 240x300px Setpoint: 0-10Vdc. Temperature, humidity or fan speed selectable Timeout override: Display timeout** Lockout override: Touchscreen/button lockout**
LCD	52mm (2.05 in), segmented with 3 buttons Setpoint: 0-10Vdc. Temperature, humidity or fan speed selectable Timeout override: Display timeout** Lockout override: Touchscreen/button lockout**

Setpoints***

Temperature setpoint	0 to 10V output Scale: 10 to 35 °C (50 to 95 °F) / 0 to 50 °C (32 to 122 °F)
Humidity setpoint	0 to 10V output Scale: 0 to 100% RH
Fan speed setpoint	0 to 10V output Off 0V, Low 3.3V, Med. 6.7V, High 10.0V

Wiring Terminals

Terminal blocks	Screw terminals, 18-24 AWG
Screw terminal torque	0.2 N-m (2.0 in-lbF) max.

Regulatory Information

Agency approvals	UL 916, European conformance CE: EN61000-6-2 EN61000-6-3 EN61000 Series - industrial immunity EN 61326-1 FCC Part 15 Class B, REACH, RoHS, Green Premium, RCM (Australia), ICES-003 (Canada)
------------------	---

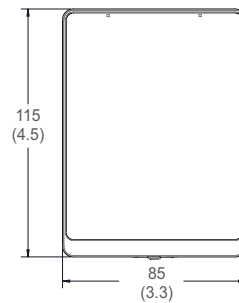
* Air Quality Index for VOC aligns with TVOC levels for IAQ as specified by the WHO (World Health Organization).

** DIP switch selectable.

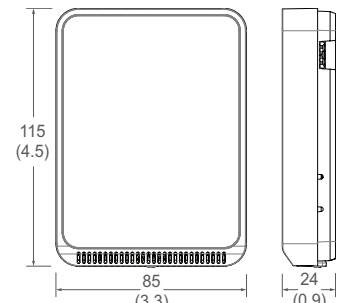
*** One setpoint type is selectable via DIP switch on display models only.

Dimensions mm (in.)

Optimum Housing



Medium Housing



Installation

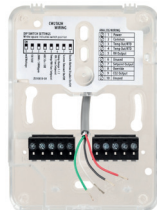
1. Remove the cover from the base at the bottom of the device.



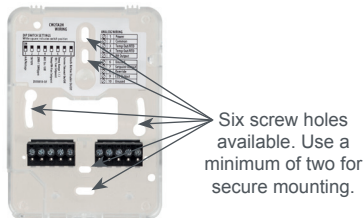
2. Position the sensor base vertically on the wall 1.35 m (4.5 ft.) above the floor with the “UP” arrow facing upward. Locate away from windows, vents and other sources of draft. If possible, do not mount on an external wall, as this may cause inaccurate temperature readings.



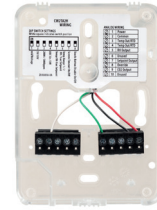
3. Pull 18 or 22 AWG cable(s) through the hole in the backplate.



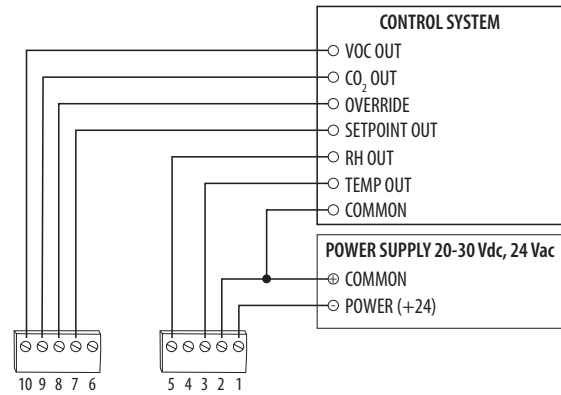
4. Mount the backplate onto the wall using the screws provided.



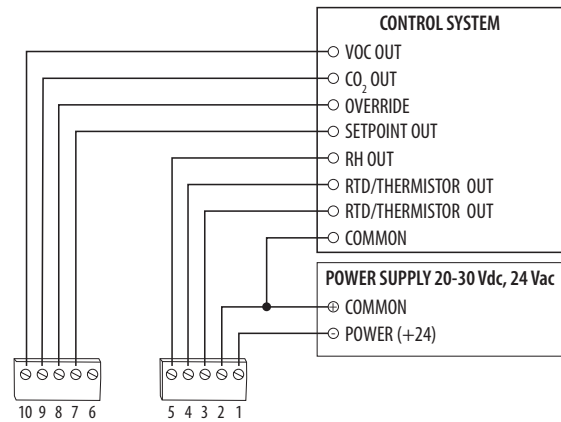
5. Connect the wires to the screw terminals. Do not over-tighten the screws.



Wiring for models with temperature transmitter:

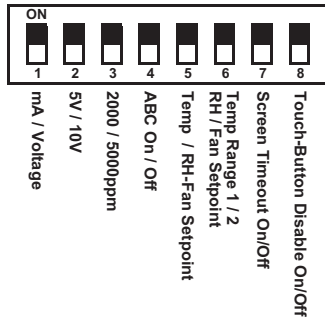


Wiring for models with RTD/thermistor:



Installation (cont.)

6. Set the DIP switches.



Switch	Function	Description
1	Output mode	ON - 4-20mA output mode enabled OFF - Voltage output mode enabled
2	Voltage output range*	ON - 0-5V output range enabled OFF 0-10V output range enabled
3	CO ₂ output range	ON - 0-2000 ppm CO ₂ output range enabled OFF - 0-5000 ppm CO ₂ output range enabled
4	Automatic Baseline Calibration (ABC) for CO ₂	ON - ABC enabled OFF - ABC disabled
5	Setpoint output type	ON - Temperature setpoint enabled (temp range selected on DIP switch 6) OFF - RH or Fan Speed setpoint enabled (specific setpoint output type to be selected on DIP switch 6) Models without RH option select only temp or fan setpoint
6	Setpoint output temperature range or RH/Fan Speed output type	Temperature setpoint (must be enabled on DIP switch 5) ON - Temp range 1, 50 to 95 °F (10 to 35 °C) enabled OFF - Temp range 2, 32 to 122 °F (0 to 50 °C) enabled RH or Fan Speed setpoint (must be enabled on DIP switch 5) ON - RH setpoint enabled OFF - Fan Speed setpoint enabled Models without RH option, set to OFF
7	Display times out and turns off after 6-10 seconds of touchscreen/button press	ON - Display Timeout enabled OFF - Display Timeout disabled

Switch	Function	Description
8	Touchscreen touch functions and buttons are disabled	ON - Touchscreen touch/button functions disabled OFF - Touchscreen touch/button functions enabled

* Only used with voltage output mode enabled.

7. With sensor base fully installed, align top of cover to mounting tabs on top of sensor base. Swing cover downward until it latches at the bottom.

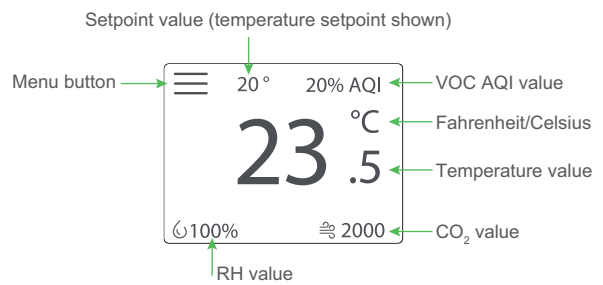


8. Install locking screw to secure cover in closed position.



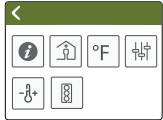
Touchscreen Operation
Main Screen

The touchscreen user interface displays applicable sensor output values (temperature, RH, CO₂ and VOC), setpoint value, menu button and CO₂ stoplight status (if enabled).

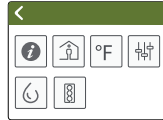


Menu Screen

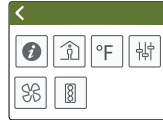
The menu screen opens when pressing the Menu button on the main screen. Integrator’s submenu, occupancy/override, Fahrenheit/Celsius, settings, setpoint submenu (temp, RH or fan, determined by DIP switch settings) and CO₂ stoplight buttons are displayed on the menu screen.



Temperature setpoint
DIP switch selected




RH setpoint
DIP switch selected

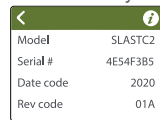



Fan Speed setpoint
DIP switch selected

Menu Button Functions

 **Integrator’s Submenu**
Press this icon to access the Integrator’s menu.

Submenu Only





 **Occupied Override Button**
Press this icon to provide momentary ground output to the controller


Single Press Only

 Signals occupied/override call to controller.

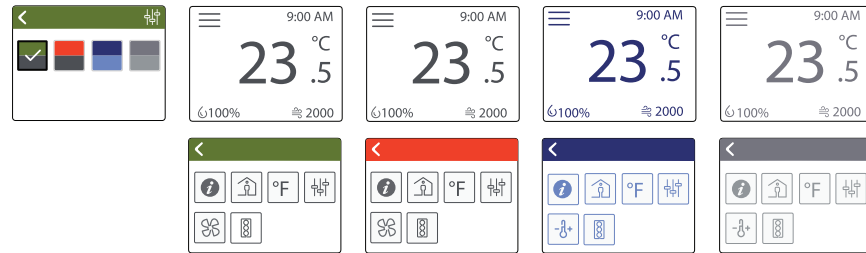
 **Fahrenheit/Celsius Switch**
Press this icon to display either °C or °F.


Single Press Only

 Changes units to Fahrenheit when pressed.
 Changes units to Celsius when pressed.

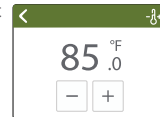
 **Settings**
This icon provides the ability to change the color scheme of the display.


Submenu Only



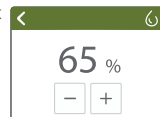
 **Temp Setpoint Adjustment**
Click this icon to access the setpoint change menu. Mutually exclusive with fan speed, set by DIP switch.

Submenu Only



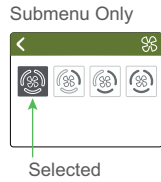
 **Humidity Setpoint Adjustment**
Click this icon to access the setpoint change menu. Mutually exclusive with humidity and fan speed. Set by DIP switch.

Submenu Only

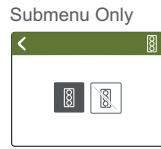


Menu Button Functions (cont.)

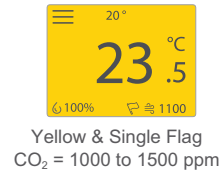
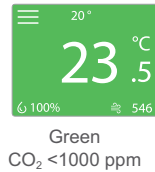
Fan Speed
Click this icon to access the fan speed menu. Mutually exclusive with humidity and fan speed. Set by DIP switch.



CO₂ Stoplight Menu
Click this icon to toggle the CO₂ Stoplight feature on and off. With CO₂ Stoplight turned on, the background color of the main screen changes with CO₂ level. This provides a visual indicator of CO₂ levels to the room occupants.



Feature is ON
Feature is OFF



China RoHS Compliance Information
Environment-Friendly Use Period (EFUP) Table

部件名称		有害物质 - Hazardous Substances				
Part Name	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电子件 Electronic	X	O	O	O	O	O

本表格依据SJ/T11364的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572规定的限量要求。
(企业可在此处, 根据实际情况对上表中打 * 的技术原因进行进一步说明。)

This table is made according to SJ/T 11364.

O: indicates that the concentration of hazardous substance in all of the homogeneous materials for this part is below the limit as stipulated in GB/T 26572.

X: indicates that concentration of hazardous substance in at least one of the homogeneous materials used for this part is above the limit as stipulated in GB/T 26572

Z000057-0B

USA: +1 888-444-1311
Europe: +46 10 478 2000
Asia: +65 6484 7877
www.schneider-electric.com

Life Is On

