

SpaceLogic Sensors

SLA Series PM Sensors – Analog



Note: A subset of models shown.

Product Description

The SpaceLogic SLA PM (Particulate Matter) 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 touchscreen and blank user interface options. Touchscreen models offer an all-in-one sensor with temp, RH, CO₂ and PM; while the blank model offers only PM to best suit retrofit environments.

Features

- Medium matte white housing or optimum glass panel housing available in white or black
- Laser-scatter type PM sensor featuring innovative contamination resistance technology for highly accurate measurement of particulate matter
- Manual and auto field calibratable non-dispersive infrared CO₂ sensor
- Quick to commission with DIP switch selectable outputs
 - 4-20 mA, 0 to 5 Vdc or 0 to 10 Vdc
 - CO₂: 0 to 2,000/5,000 ppm
- Temperature output value shown as default main value on Touchscreen displays
- Temperature setpoint toggle function for touchscreen sensors
- 61 mm (2.4") backlit color touchscreen
 - Digital temperature indication (0.1° display resolution of °F or °C)
 - Digital humidity indication (0.1% RH display resolution)
 - Digital CO₂ indication
 - 0 to 10,000 ppm output
 - 1 ppm resolution
 - Selectable CO₂ output range from 0 to 2,000 ppm or from 0 to 5,000 ppm
 - Stoplight feature for visual indication at user-configurable CO₂ and PM2.5 threshold levels (touchscreen models only)
 - Selectable temp, RH and fan speed setpoint (0-10V)
 - Configurable screen lock and display timeout
 - Override
- 18-24 AWG screw terminals

Available Products

Model	Description	User Interface	Housing Finish
SLASTCP2	Sensor, PM2.5, CO ₂ , RH, Touch, Analog	Touchscreen	Medium White
SLABTCP2	Sensor, PM2.5, CO ₂ , RH, Touch, Analog, Optm Bk	Touchscreen	Optimum Black
SLAWTCP2	Sensor, PM2.5, CO ₂ , RH, Touch, Analog, Optm Wh	Touchscreen	Optimum White
SLASXXPX	Sensor, PM1, PM2.5, PM4, PM10, Analog	Blank	Medium White
SLABXXPX	Sensor, PM1, PM2.5, PM4, PM10, Analog, Optm Bk	Blank	Optimum Black
SLAWXXPX	Sensor, PM1, PM2.5, PM4, PM10, Analog, Optm Wh	Blank	Optimum White

Replaceable PM Elements

Model Number	Description
SLXPMS	Replaceable Module, PM

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

Life Is On

Schneider
Electric

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
IP rating	IP 30
Mounting location	For indoor use only. Not suitable for wet locations.
Surface mount	The device can be surface mounted on Single Gang J-Box, British Standard and CE60 wall boxes
PM Sensor	
Sensor type	Laser-scatter
Output range	0 to 1,000 µg/m ³
Accuracy	PM 1 and PM 2.5: 0 to 100 µg/m ³ +/-[5µg/m ³ +5% m.v.], 100 to 1,000 µg/m ³ +/-[10% m.v.] PM 4 and PM 10*: 0 to 100 µg/m ³ +/-[25µg/m ³], 100 to 1,000 µg/m ³ +/-[25% m.v.] (sensor-to-sensor deviation)
Resolution	0.1 µg/m ³
CO ₂ Sensor	
Sensor type	Non-dispersive infrared (NDIR), diffusion sampling
Output range	0 to 2,000/5,000 ppm (selectable)
Accuracy	±30 ppm ±3% of measured value
Resolution	1 ppm
Repeatability	±20 ppm ±1% of measured value
Response time	<60 seconds for 90% step change
RH Sensor	
Sensor type	Solid state capacitive, replaceable
Output range	0 to 100% RH
Accuracy (includes hysteresis)**	±3.8% RH from 10 to 60% RH @ 25°C (77 °F) ±4.8% RH from 60 to 80% RH @ 25°C (77 °F) ±5.8% RH from 80 to 100% RH @ 25°C (77 °F)
Resolution	0.1% RH
Linearity	Included in accuracy specification
Stability	±1% @ 20°C (68 °F) annually for 2 years
Temperature coefficient	±0.1% RH/°C above or below 25 °C (77 °F) typical
Temperature Sensor	
Sensor type	Solid state, integrated circuit
Output range	0 to 50 °C (32 to 122 °F)
Accuracy	±0.2 °C (±0.4 °F) typical
Resolution	0.1 °C (0.1 °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**
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, Auto 1.5V, Low 3.3V, Med. 6.7V, High 10.0V
Override	
Override button	Display models feature momentary-to-ground override button
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: EN 60730-1 EN 60730-2-9 EN 60730-2-13 EN 61000-6-2 EN 61000-6-3 EN 61000 Series - Industrial Immunity EN 61326-1 FCC Part 15 Class B, REACH, RoHS, Green Premium, RCM (Australia), ICES-003 (Canada), UKCA (UK)

*PM4 and PM10 output values are calculated based on distribution profile of all measured particles.

**Humidity sensor overall accuracy should include: accuracy, temperature coefficient and stability. Humidity accuracy is shown as an absolute value, so if testing accuracy with a hand-held device, you must check for deviation in its readings instead of calculating the percentual deviation. Additionally, you must consider the overall accuracy of the hand-held device in the comparison.

***DIP switch selectable.

Note: This product is specified for environments with stable natural airflow. In dynamic airflow conditions, sensor performance may deviate from expected values. In stable elevated airflow, an offset feature can be applied. Refer to ZL0241-xx, *Field Offset Adjustment Procedure for SLA and SLP Temperature and Humidity Outputs* on www.se.com/myschneider for further information. The offset functionality only exists on units containing a second DIP switch bank dedicated to the offset feature.

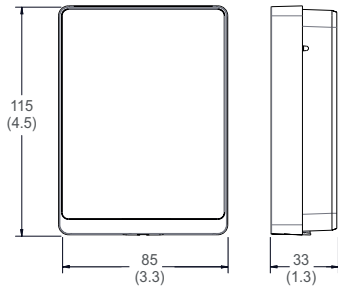
Power Table

Model	Description	Max. VA
SLAxTCP2	Touch CO2/Temperature/Humidity/PM	4.152
SLAxxxPx	Blank PM	3.288

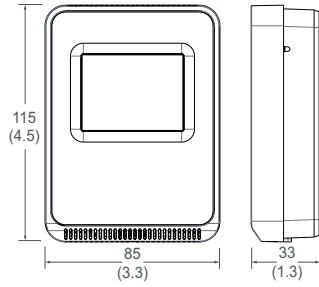
Note: Model numbers based on supported product matrix.

Dimensions mm (in.)

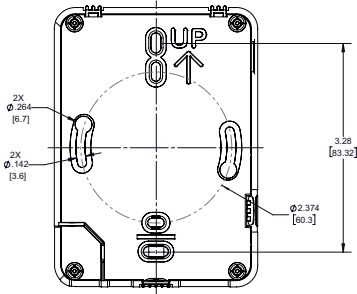
Optimum Housing



Medium Housing



Base Hole Measurement



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

Life Is On

