

## Flexible Sensors for BAS Controllers







- 4-20mA
- 0-5Vdc
- 0-10Vdc
- BACnet MSTPP
- Modbus RTU

## **Indoor Air Quality**

Multiple Display Options

New Construction Retrofits K-12 Bid Spec, LCD, or Color Touchscreen

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## **Analog Output Sensors** for BAS Controllers

	Housing Use	r Interface	CO2 Sensor	RH Sensor	<b>.</b> *
SLA SLP	S = Medium white matte housing W = Optimum white housing B = Optimum black housing	T = Color touchscree L = 3-button LCD dis X = None	O NDIN OO2	2 = 2% X = None	Example: SLA S T C 2

<sup>\*</sup> RH elements are replaceable

## **Housing Finishes**



**Optimum White Blank** 



**Medium White** 

Analog (CW2, HW2, TW2, SLA) Protocol (CW2, HW2, TW2, SLP)

## **Interface Types**



**Touchscreen** 



**Temperature & IAQ Sensors** 

## for Controllers with Analog I/O & / or Thermistors







### Touchscreen

### **Blank**

### **LCD** with Buttons

### **CW2 Air Quality Sensors**

User Interface RH Accuracy\* VOC Sensor Output Temperature CW2 = NDIR CO2 / VOC\*\* Color touchscreen = Analog Transmitter 3-button LCD display 1000 PT RTD 10K T2 thermistor 10K T3 thermistor

### **HW2 Humidity Sensors**

RH Accuracy\* User Interface Output HW2 = Analog = 3-button LCD display = None

Temperature	,
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= 1000 PT RTD 10K T2 thermistor 10K CPC thermistor\*\* D G = 10K T3 thermistor 10K curve G/11K shunt 20K NTC thermistor N = 1.8K TAC thermistor

> 10K T3 thermistor 10K curve G/11K shunt 20K NTC thermistor 1.8K TAC thermistor

= 10K curve G\*\*\*



### **TW2 Temperature Sensors**

User Interface Output Temperature TW2 A = Analog Color touchscreen 3-button LCD display = 1000 PT RTD D = None 10K T2 thermistor



### REPLACEABLE RH ELEMENTS

MODEL	RHACCURACY	CALIBRATION CERTIFICATE	DESCRIPTION
HSIN	±1%	X	Replaceable RH sensor, 1% with NIST certification
H52N	±2%	X	Replaceable RH sensor, 2% with NIST certification
H52X	±2%		Replaceable RH sensor, 2%







 $<sup>^{\</sup>star}$  Replaceable 1% with NIST certificate, 2% with NIST certificate and 2% elements available.

<sup>\*\*</sup> VOC only availble with temperature transmitter option \*\*\* For analog non-display, non-RH, models with RTD/thermistor order from CWE2 line

Example: 10K curve G/11K shunt M = 20K NTC thermistor CW2 1.8K TAC thermistor

<sup>\*</sup> Replaceable 1% with NIST certificate, 2% with NIST certificate and 2% elements available.

<sup>\*\*</sup> Available in HW2XA2G only.

<sup>\*\*\*</sup> Available in HW2XA2R only.



CWE2

& CWV2

## **Sensors with I/O Analog Inputs**

# CWE2 Economy Air Quality Sensors

### & / or Thermistors

Temperature

= None

C = 1000 PT RTD D = 10K T2 thermistor H = 10K T3 thermistor

K = 10K curve G/11K shunt M = 20K NTC thermistor

M = 20K NTC thermistor N = 1.8K TAC thermistor

Exampl	e:
CWE2	С

Model	User Interface			
CWV2	Blank			

**CWV2 Value Air Quality Sensors** 

CWE2 has 2-wire, 44-20mA, CO2 Output!

### **Controllers with BACnet MSTP or Modbus RTU Inputs**

CW2P, HW2P and TW2P Series sensors by Veris are designed for use with third party BAS controllers that use BACnet MSTP or Modbus via RS-485. These sensors share the same platform as the SLP Series and are available with VOC/CO<sub>2</sub>, CO<sub>2</sub>, RH and Temperature sensors with Touchscreen, LCD and Blank covers. Touchscreen and LCD with three button models include a momentary override and setpoint for temp, RH or fan speed. All models include the "Medium" matte white finish with no logo on the face. If Schneider Electric-branding or "Optimum" white glass panel and "Optimum" black glass panel finishes are required, SLP models listed on AS-P Series BACnet Controllers (page 9) may be used.

### **User Interface Types**







**LCD with Buttons** 



**Touchscreen** 

### **CW2P Air Quality Sensors**

					1/000	
	User Interface	Output	RH Accuracy*		VOC Sensor	Example:
CW2				А		CW2 T P 2 A V
	T = Color touchscreen L = 3-button LCD display X = None***	P = BACnet/ Modbus	2 = 2% X = None		$V = NDIR CO_2 / VOC$ = None	

 $<sup>^{\</sup>star}$  Replaceable 1% with NIST certificate, 2% with NIST certificate and 2% elements available.

### **HW2P Humidity Sensors**

Model	User Interface	RH*	Temp.	Setpoint	Override
HW2TP2A	Touchscreen	Χ	X	X	Χ
HW2LP2A	LCD / 3 Buttons	Χ	X	X	X
HW2XP2A	Blank	Χ	X		

<sup>\*</sup> Replaceable 1% with NIST certificate, 2% with NIST certificate and 2% elements available.

### **TW2P Temperature Sensors**

Model	User Interface	Setpoint	Override	Temperature Sensor
TW2TPXA	Touchscreen	X	X	Temperature Transmitter
TW2LPXA	LCD / 3 Buttons	X	X	Temperature Transmitter
TW2XPXA	Blank	Χ	X	Temperature Transmitter





## **Schneider Electric Distribution**

### **Product Line Card**



### **Products - By Category**

### **ACTUATORS** AND VALVES

Actuators Damper Actuators DuraDrive Valve Actuators

Forta Globe Valve

Actuators Barber-

Colman

Actuators Electric

Electric-Hydraulic Pneumatic

NEMA 4 / Hazardous

Location

Erie Damper Actuators

Actuator Accessories

Adaptors

Linkages

Mounting components

Air Valves

Ball Valves DuraDrive VBB/VBS

Series

Vx-2000 Series Butterfly Valves Rubber

lined seats Metal seats Globe Valves

Vx-7000 Series

Bronze Trim Stainless Steel Trim

Flanged Iron Valves

Zone Valves

Erie 2-position PopTop Erie Modulating PopTop

### **ELECTRONIC DEVICES**

Controllers

Fan Speed Humidity Pressure Relay

Sequence Temperature
Zone Valve Controller
Lighting Control

#### Occupancy Sensors

Programmable

Relays - Zone Control

Switches Air Flow Pressure

Sensors Flow Sensors Gas Sensors Humidity Sensors Light Sensors Temperature Sensors Room Sensors Remote Sensors

Transmitters Room

Remote Pressure

### Thermostats/Controllers

Barber-Colman **Bulb Thermostats** 

Viconics - Thermostats/ Room Controllers Schneider Electric -Thermostats/Room

Controllers

**Transmitters** 

Humidity Pressure Temperature

Variable Frequency Drives

### **PNEUMATIC DEVICES**

Gauges Pressure Gauges Receiver Gauges

Panel Equipment

Receiver Controllers

Relays

Amplifying Averaging

Diverting

Electric-Pneumatic

Repeating Reversing

Selector

Solenoid Air Valves

Switches, Differential Pressure

Pressure Regulator

Pneumatic to Electric

Thermostats/Controllers Barber-Colman Room

Thermostats 2" x 2" Room Thermostats

**Bulb Thermostats** 

**Unitary Temperature** 

**Building Automation/Energy** Management - BACnet MSTP, IP/ZigBee wireless/ Modbus/LON -WiFi

Communicating Building Automation/Energy Management

**Building Managers HVAC** Controllers Lighting Controllers End Devices

**Communicating Application** Specific Configurable/ Programmable HVAC Unitary controllers

Rooftop Units Heat Pump Fan Coil Chilled Beam

Zone Control

VAV VVT

Systems

EcoStruxure Building Expert -Configurable and Programmable

HVAC Control Monitoring

Lighting Control Remote sensors

Demand based Occupancy Water Leak Detection

CO2 Humidity Wireless Cloud Integration Trending

Alarming





## **Schneider Electric Distribution**

### **Product Line Card**

## Sourced Products - By Product Catagory

Air Dryers Kele

Air Flow Measuring and Sensors Kele

Air Quality Sensors Digital Control Systems (DCS) Veris

Controllers Kele

Current Sensors Veris

Enclosures Graybar Unity Mfg.

Filters Kele

Flow Meters Data Industrial Onicon

Hardware & Fittings

Humidity Sensors ACI Kele Veris

IDEC Relays & Components Lectro Components Power Meters Veris Square D

Power Supplies Functional APC Functiona Devices

Pressure Gauges Kele

Kele

Pressure Regulators Kele

Pressure Switches Kele

Pressure Transmitters Veris

Relays / Sockets Functional Devices Lectro Components

Temperature Sensors ACI Kele

Kele Veris

Thermostats Kele Transformers

APC Square D Veris

Tubing Kele

Wire and Cable Kele Sourced Products - By Supplier

### ACI

Humidity Sensors Temperature Sensors Temperature/Humidity Combination Sensors Air Products and Controls Smoke Detectors

#### Connect-Air International

Wire and Cable

Data Industrial

Flow Meters

Digital Control Systems (DCS)

Air Quality (CO<sub>2</sub>) Sensors

### Dwyer

Pressure Gauges Pressure

Switches Ergomet Enclosures

### **Functional Devices**

Power Supplies Relays

Graybar

Enclosures

#### Kele

All Products are available and include: Air Dryers Kreuter Mfg. Controllers BAPI Smoke Detectors Wire & Cable Lectro Components

IDEC Relays & Enclosures

#### Square D

Contactors Circuit Breakers Limits and Pump Controls Meters Motor Starters Safety switches Surge protection Vehicle Charging Station VFD's

### UnityMfg.

Enclosures

### Veris

Air Quality
CO<sub>2</sub> and CO Sensors
Current Sensors Humidity
Sensors Power Meters
Pressure Transmitters
Relays / Sockets
Temperature Sensors
Temperature/Humidity
Combination Sensors
Transformers





