i-Vu® Building Automation System
ZS2 IAQ Sensors
Indoor Air Quality Sensors

Carrier's line of intelligent ZS2 Indoor Air Quality (IAQ) Sensors provide the function and flexibility you need to manage the conditions important to the comfort, productivity, and sustainability of your building. The ZS2 IAQ sensors are designed to measure room temperature, relative humidity, carbon dioxide (CO_2), volatile organic compounds (VOCs), total volatile organic compounds (TVOCs), and particulate matter 1.0, 2.5 and 10 micrometers and smaller (PM 1.0, 2.5 and 10). These sensors are available in a variety of zone sensing combinations to address your application needs. Designed to work with the i-Vu building automation system, the ZS2 IAQ sensor line includes the ZS2 Standard and ZS2 Plus, and come in white or black models.
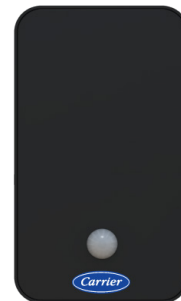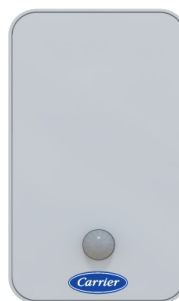

	ZS2 Standard		ZS2 Plus	
	ZS2-7-HCMPV-CAR*	ZS2-7-HCMPV-B-CAR*	ZS2PL-7-HCMPV-CAR*	ZS2PL-7-HCMPV-B-CAR*

Features

	ZS2 Standard	ZS2 Plus
Temp, Humidity, Motion, CO_2, VOC, TVOC and PM 1.0, 2.5 and 10 options	•	•
Addressable / supports daisy-chaining	•	•
Hidden communication port	•	•
Occupancy status indicator		•
Push-button occupancy override		•
Setpoint adjust		•

*Note: To order a sensor without a Carrier logo, use "BNK" in place of "CAR" above. Some models are only available without a logo.
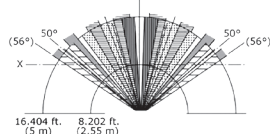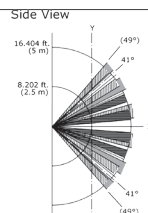
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Sensing Element	Range	Accuracy
Temperature with any Option (excluding Humidity)	-4° F to 122° F (-20° C to 50° C)	±0.35° F (0.2° C)
Temperature with Humidity and any Option	50° F to 104° F (10° C to 40° C)	±0.5° F (0.3° C)
Humidity	10% to 90%	±1.8% typical
Carbon dioxide (CO_2)	400 to 1250 PPM 1250 to 2000 PPM	±30 PPM or +/- 3% of reading (greater of two) ±0.5% of reading plus 30 PPM
Volatile Organic Compounds (VOC)	0 to 2000 PPM CO2	±100 PPM
Total volatile organic compounds (TVOC)	125 to 600PPB	20PPB + 30% of reading
Particulate matter (PM)	0 to 1,000 ug/m3 (max)	1 to 100 ug/m3 ±15 ug/m3 101 to 500 ug/m3 ±15 %

Power Requirements	Sensor Type	Power Required
Temperature, PM, CO2, TVOC, RH, VOC,PIR	All Models	12 Vdc @ 154 mA

Specifications

Power Supply	A controller supplies the Rnet sensor network with 12 Vdc @ 210 mA. Additional power may be required for your application. See sensor power requirements above.
Communication	115 kpbs Rnet connection between sensor(s) and controller 15 sensors max per Rnet network; 5 sensors max per control program.
Local Access Port	For connecting a laptop computer to the local equipment or i-Vu network for maintenance and commissioning.
Motion Sensing	**Sensor Type:** passive infrared (PIR) **Distance:** 16.4 ft. (5 m) **Detection Range:** (HxV) 100° x 82° **Movement Speed:** 2.62 to 3.94 ft/s (0.8 to 1.2 m/s) **Detection Object:** 27.56 x 9.84 in. (700 x 250 mm)
Environmental Operating Range	32° F to 122° F (0° - 50° C), 10% to 90% relative humidity, non-condensing
Mounting Dimensions	Standard 4"x 2" electrical box using provided 6/32" x 1/2" mounting screws
Dimensions	**Overall** **Width:** 2.75 in. (6.99 cm) **Depth:** 0.858 in. (2.18 cm) **Height:** 4.75 in. (12.07 cm)

For more information, contact your local Carrier Controls Expert.

Controls Expert Locator: www.carrier.com/controls-experts