



i-Vu® Building Automation System Wireless Plus Sensor

Part Numbers: WS-TO-C-902 / WS-THO-C-902



The i-Vu® Building Automation System provides everything you need to access, manage, and control your building, including the powerful i-Vu user interface, plug-and-play BACnet controllers, and state-of-the-art Carrier equipment.

As part of Carrier's wireless sensing line, wireless plus sensors are used to measure temperature and humidity in a space. Because there are no wires to run, they can be added to your building easily.

Wireless sensors work in conjunction with a wireless adapter, which enables wireless communication between the sensors and an i-Vu® BACnet controller in the space. By sensing temperature and humidity wirelessly, our i-Vu controllers can make smart decisions to optimize the control of heating, cooling, and lighting systems in the building, providing optimum occupant comfort and energy efficiency.

Features and Benefits

- Easy to install
- Communicates on the Rnet sensor network via a wireless adapter
- Can be installed up to 60' away from wireless adapter
- Enables wireless sensing on new or retrofit projects
- Wireless software included for quick and easy sensor pairing
- Includes dial for adjusting heat/cool setpoints
- Available in two models: temperature only (WS-TO-C-902), and temperature & relative humidity (WS-THO-C-902)

i-Vu® Wireless System Benefits

- Wireless and battery-less space sensors (assuming sufficient lighting exists in space)
- Maintenance-free capacitors power the sensors during unlit periods for up to 4-days without a light source
- No repeaters or amplifiers required for zone-based applications
- Integrates seamlessly with i-Vu® system alarming for proactive monitoring of important sensor conditions, including:
 - ♦ Sensor charge level
 - ♦ Sensor signal strength
 - ♦ Sensor offline
- Can coexist on Rnet with Carrier's wired ZS sensors
- Single-zone controllers can support a total of 5 sensors
- Multi-zone controllers can support up to 15 sensors





i-Vu[®] Building Automation System Wireless Plus Sensor

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Specifications

| | |
|---|--|
| Power supply | Solar harvesting, internal energy storage |
| Supplemental battery | A 1/2 AA 3.6 V 1200 mA battery is included to supplement power during commissioning and for low-light conditions |
| Maximum operating life | Up to 4 days with no light power or battery |
| Time to fully charge | Depends on available lux. Full charge in 8 hours @ 1000 lux or 24 hours @333 lux |
| Temperature sensor measuring range | 32° to 104°F (0° to 40°C) |
| Humidity sensor | 11% to 89%, ±3% RH typical |
| Protocol | Customized version of EnOcean [®] |
| Radio frequency | 902 MHz (North America) |
| Transmission range | Typically, 60 ft. (18.29 m) maximum from wireless adapter, assuming sensor and wireless adapter are separated by no more than 1 drop ceiling or 2 walls (drywall with metal studs) |
| Transmission interval | Configurable in SensorBuilder. The sensor transmits: <ul style="list-style-type: none"> • On change of sensed value, and • At a regular interval (heartbeat).The default is every 15 minutes |
| Change of value threshold | Configurable in SensorBuilder. The temperature must change by at least .288°F (.156°C) (the default) for the sensor to send a change of value |
| Minimum illumination strength | 150 lux, constant |
| Degree of protection | IP50 |
| Operating environment | 32° to 122°F (0° to 50°C) 5% to 95% relative humidity (non-condensing) |
| Housing | ABS plastic, traffic white color |
| Weight | 0.22 lb. (.10 kg) |
| Dimensions | 3.25 in. W x 3.25 in. H x 1.18 in. D (8.25 cm W x 8.25 cm H x 3 cm D) |
| Compliance | <p>United States of America FCC CFR 47, Chapter 1, Subchapter A, Part 15, Subpart B Class B Contains FCC ID: SZV-STM300U UL-916 (PAZX) Energy Management Equipment</p> <p>Canada Industry Canada Compliant, ICES-003, Class B cUL Listed UL 916,PAZX7, Energy Management Equipment</p> <p>Europe: CE EN50491-5-2:2009; Part 5-2: EMC requirements for HBES/BACS used in residential, commercial and light industry environment EN50491-3:2009 Part 3: Electrical safety requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) Low Voltage Directive: 200695/EC RoHS Compliant: 2011/65/EU</p> |

Australia and New Zealand:

 C-Tick Mark AS/NZS 61000-6-3



United Technologies

CONTROLS EXPERT

Tested. Certified. Factory Authorized.

**For more information, contact
your local Carrier Controls Expert.**

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

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