



An **i-site** Family Product

4-B

Your #1 Tool for going **GREEN**

Solidyne's advanced family of wall mounted temperature sensors offer a ladder of control and security options that will provide the optimum function for a wide variety of installation requirements. Two-piece construction includes a separate main sensor housing and back plate. For fast and easy installation the back plate is screw mountable to a surface or electrical box.

The 4-B wall sensor is our most advanced unit containing sensing ability for temperature, humidity, motion and ambient light level. The 4-B, as part of the i-Site family, is also be powered by the Sedona Framework while using 6LoWPAN for wireless communication to other i-Site family products.

Mesh Networking

Mesh networking uses a star topology with no central communication device such as a router. This makes the network much more robust and reliable. All the nodes on the network will have an individual IP address and communicate directly with one another. This provides a much more reliable network in the case of hardware or software malfunctions because there is no central communications device that can bring down the entire network. Rather each controller will find an alternate communications path around the malfunctioning device. In addition all nodes can also act as a repeater for the signal. In a case where two nodes are too far apart to communicate, the first node can bounce the signal off a middle node to reach the required destination of the second node.

6LoWPAN

6LoWPAN is the International Open Standard that enables building the Wireless "Internet of Things". It enables using 802.15.4 and IP together in a simple well understood way. It brings IP to the smallest of devices - sensors and controllers.

Sedona

Sedona is a software framework designed to make it easy to build smart, networked embedded devices. Some of the Sedona highlights:

- **Component Oriented Programming:** Sedona enables a style of programming where prebuilt components are assembled into applications. Components can act as services or be explicitly linked together to create data and control flow. This model is especially suited to graphical programming tools.
- **Networking:** Several protocols are bundled with Sedona to provision, program, and communicate with Sedona-enabled devices over various network topologies. You can remotely add, remove, and modify the components in your application in real-time. You can even upgrade the firmware itself over the network. All Sedona networking is designed to work over any IP network including [6LoWPAN](#).

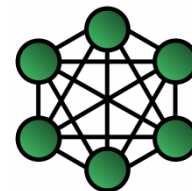
- Zone Temperature
- Zone Humidity
- Zone Slider Setpoint
- Light Level Sensor
- Motion Sensor
- Sedona Framework
- 6LoWPAN 802.15.4 protocol
- Uses higher power Sedona module

POWERED BY
SEDONA
FRAMEWORK™

Powered by Sedona Framework

6LoWPAN

6LoWPAN Protocol



Mesh Networking

HARDWARE FEATURES/BENEFITS

- Networkable via Tridium's Sedona Framework
- 6LoWPAN standard
- 2.4GHz IEEE 802.15.4 compliant
- Seamless coexistence with other 2.4Ghz technologies such as
 - Zigbee
 - Zigbee PRO
 - 802.11 WIFI
 - Bluetooth
- FCC, ETSI, TELEC approvals
- 12 bit Analog to Digital conversion
- High resolution ADC's translate to highly accurate sensor readings
- 11 bit Digital to Analog conversion
- High resolution DAC's mean tight control of any device attached to the 4 analog outputs
- Seamless integration into the Niagara Framework
- Compliant with FCC part 15 rules, ETSI ETS 300-328 and Japan ARIB STD-T66
- Flash based microcontroller allowing remote updating of any new features
- Use common industry standard programming tools such as Sedona Workbench or AX Workbench

SPECIFICATIONS

- **Supply Voltage:** 24 VAC
- **Supply Power:** 1 VA
- **Connections:** Wire clamp type terminal blocks
- **Outputs:** LED indicator of motion
- **Inputs:**
 - Zone Temperature
 - Zone Humidity
 - Zone Slider Setpoint
 - Light Level
 - Motion

- **Case Material:** flame retardant ABS
- **Dimensions:** 6.0 x 4.0 x 1.1 inches (157 x 102 x 18.6 mm)
- **Approvals:** UL/CSA and Sedona Framework
- **Weight:** 0.48 lbs. (218 g)

Environmental Specifications

- **Operating:** 34 to 125° F (1.1 to 51.6° C)
- **Shipping:** -40 to 140° F (-40 to 60° C)
- **Humidity:** 0 to 95% RH (non-condensing)

Temperature Readings

- **Accuracy** ±0.9° F offset (±0.5° C) from 40° to 104° F (4.4° to 40° C)
- **Resolution** ±0.1° F (±0.1° C)
- **Operating Range** 36 to 120° F (2.2 to 48.8° C)

Humidity Readings

- **Range** 0 to 100% RH
- **Accuracy @ 25° C** ±2% RH (10 to 90% RH)

POWERED BY
SEDONA
 FRAMEWORK™

Agency Approvals Pending:



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