Allure UNITOUCH™

Occupant interface with mobile app support, sensors and touchscreen for the control of HVAC, lighting and sunblinds.

Overview

The Allure UNITOUCH is an elegant and occupant focused room device that provides an intuitive user interface, allowing wireless control of room comfort parameters from a smartphone using *Bluetooth*® low energy technology. Its compact style and slim profile provides a modern appearance when installed in any setting.

The high resolution 3.5” capacitive touchscreen makes this communicating sensor the ideal all-in-one solution for a wide range of HVAC, lighting, and sunblind application; a perfect addition to the Smart Room Control solution.

Several models are available in different color and sensing options to suit any room requirements.

Applications

Compatible with any ECLYPSE Connected Controller, the Allure UNITOUCH provides precise environmental zone control for temperature, fan speed, lighting, and blinds.

Features & Benefits

Modern Design with Modern Features

The Allure UNITOUCH incorporates a multitude of design features:

- Slim and compact
- Intuitive user interface
- Responsive capacitive touch screen
- Wireless control via a mobile application
- Easy customization

Mobile App Compatibility

The Allure UNITOUCH can be controlled via Bluetooth low energy technology using the mobile app. This direct connection allows for a mirrored user interface through your smartphone for easy remote control from anywhere within range.

Ergonomic and Intuitive Design

An intuitive control scheme and an engaging operation allows for an unparalleled user experience that is highlighted by its responsive capacitive touchscreen. Also equipped with a close range proximity sensor, the UNITOUCH can wake up from sleep mode with a simple wave of the hand.

Enhanced User Experience

Occupants can view and adjust environmental settings to their liking, for example, view the space temperature, adjust the setpoint, control lighting and sunblinds, set the fan speed, and apply occupancy overrides.

Temperature and Fan Speed Selection

Temperature control and adjustable fan speed offers occupants the flexibility to adjust settings to suit their own personal comfort level.

Lighting and Sunblind Control

Users can control lighting fixtures (DALI, ON/OFF, dimming) and shades/sunblind motors (24 VDC or 100-240 VAC, up/down and angle rotation) through additional expansion modules.

Occupancy Management

For people working outside of core hours, an occupancy indicator allows occupants to override system schedules during occupied or unoccupied times.

Personal Scenes (pending)

Different scenes (setpoint, light level, sunblinds…) can be configured for any potential situation such as during meetings or presentations which may require a temporary modification of environmental settings.

Centralized Control

Control HVAC, and up to 8 lighting groups and 8 shades/sunblinds groups, handled simultaneously or individually, from a single accessory

Adaptive Brightness

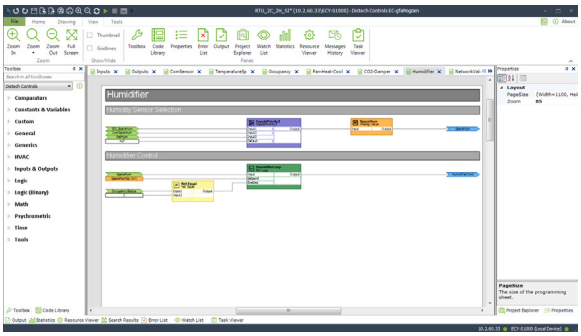
Equipped with an ambient light sensor, the display brightness is adjusted accordingly and automatically for optimal reading comfort.

Easy Configuration and Customization

The Allure UNITOUCH also benefits from intuitive customization through a specific EC-*gfx*Program block which meets most installation requirements.

Programmability

Supports Distech Controls' EC-*gfx*Program, which makes Building Automation System (BAS) programming effortless, by allowing you to visually assemble building blocks to create a custom control sequence for any HVAC , lighting, or building automation application.



Wiring and Commissioning Cost Savings

Free up Controller Inputs

The sensor is wired to the dedicated subnet port of ECLYPSE series BACnet/IP and Wi-Fi Controllers, freeing up controllers' inputs.

Reduce Wiring Lengths

Daisy-chain communicating sensors to one controller for increased range while using less wire thereby reducing material costs in large open space and multi zone applications.

Quick and Easy Installation

Both power and communications pass through a single Cat 5e cable for reduced installation costs and for easier installation.

Two RJ-45 ports facilitate the daisy-chain connections of room devices.

Quick-link Connectors

This device features quick-link connectors, accelerating installation time by up to 75% and reducing potential wiring errors.

Versatile Mounting

These sensors support various mounting scenarios, including on dry wall or on a North American, European, Swiss, or Asian style switch box.

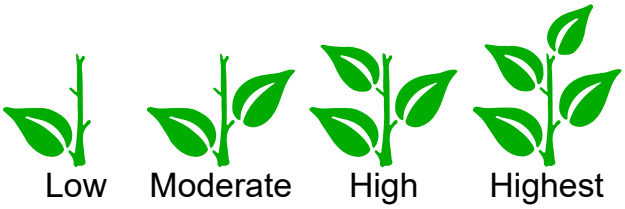
"3-in-1" Communicating Sensors

Multi-sensing capabilities (temperature, humidity, and CO_2) using one wire and one connection.

ECO-Vue™ Leaf Pattern

The innovative ECO-Vue Leaf Pattern graphically indicates energy consumption in real time to promote an occupant's energy-conscious behavior. Occupants are encouraged to have greener habits with the ECO-Vue Leaf Pattern while reducing energy costs. As more leaves appear, greater energy efficiency is being achieved, while fewer leaves will encourage the occupant to take corrective action to optimize the system's environmental performance.

Energy efficiency levels:



Automatic Calibration of CO_2 Sensors

ABC Logic (Automatic Calibration Logic) is a patented self-calibration technique that eliminates the need for manual calibration in most applications. The sensor is designed to work in environments where CO_2 concentrations will drop to outdoor ambient conditions (400 ppm) at least three times in a 14-day period, typically during unoccupied periods. For example, in a typical office, school, theater, etc., people are the main source of CO_2 in a building. When people go home at night, the indoor CO_2 level will drop to the outdoor CO_2 level, which is typically 380 to 400 ppm. The ABC Logic system records the lowest reading every 24-hour period for analysis. If there is a statistical difference in the baseline readings, then a calibration factor is applied to all subsequent sensor readings. The ABC Logic system typically takes three weeks of continuous run-time before making corrections. Lifetime CO_2 calibration is guaranteed with ABC Logic.

The sensor will typically reach its operational accuracy after 25 hours of continuous operation on condition that it was exposed to ambient air reference levels of 400 ppm ±10 ppm CO_2.

Model Selection[1]

Model Name		Temperature	Humidity	CO_2
Black	Allure UNITOUCH-B	■		
	Allure UNITOUCH-B-H	■	■	
	Allure UNITOUCH-B-CH	■	■	■
White	Allure UNITOUCH-W	■		
	Allure UNITOUCH-W-H	■	■	
	Allure UNITOUCH-W-CH	■	■	■

1. All models include a Bluetooth low energy transceiver

Product Specifications

Power Supply Input

Voltage — 16 VDC Maximum, Class 2 (subnet powered)

Power consumption:

With CO_2 sensor — 1.8W

Without CO_2 sensor — 1W

Wired Communications

Compatible Controllers — ECY-PTU/TU, ECY-VAV, ECY-303, ECY-S1000

Rate — 38 400 bps

Communications — RS-485

Topology — Daisy-chain

Wiring — Total cable length: 100m (328 ft)

Addressing — On-screen selectable

Cable Type — T568B Cat 5e network cable, 4 twisted pairs

Connectors:

- IN — RJ-45
- OUT — RJ-45 (pass-through for daisy chain connection to other room devices)

A mixed architecture with standard room devices and Bluetooth low energy enabled devices is not recommended.

Wireless Communications

Type — Bluetooth 4.2

Frequency — 2402 - 2480 MHz

Temperature Sensor

Range — 0°C to 50°C (32°F to 122°F)

Accuracy:

- Sensing component — ±0.20°C (±0.36°F)
- Overall accuracy — ±0.50°C (±0.90°F)

Resolution — 0.10°C (0.18°F)

Humidity Sensor

Accuracy — <±3% : RH 0% to 70%

Resolution — 1%

CO_2 Sensor

Measurement Range — 0 to 2000 ppm

Operating Elevation — 0 to 4877m (16000 ft)

Warm-up Time — < 2 minutes (operational), 10 minutes (maximum accuracy)

CO_2 Accuracy — 400-1250 ppm ± 30 ppm or 3% of reading, whichever is greater[1]

1250-2000 ppm ±5% of reading + 30ppm[1]

Temperature Dependence — ±0.2% FS per °C (±0.11% per °F)

Stability — <2% of FS over life of sensor (15 years)

Pressure Dependence — 0.135% of reading per mm Hg; software adjustable

Sensing Method	Non-dispersive infrared (NDIR) absorption
	Gold-plated optics
Calibration Method	Patented ABC Logic self-calibration algorithm

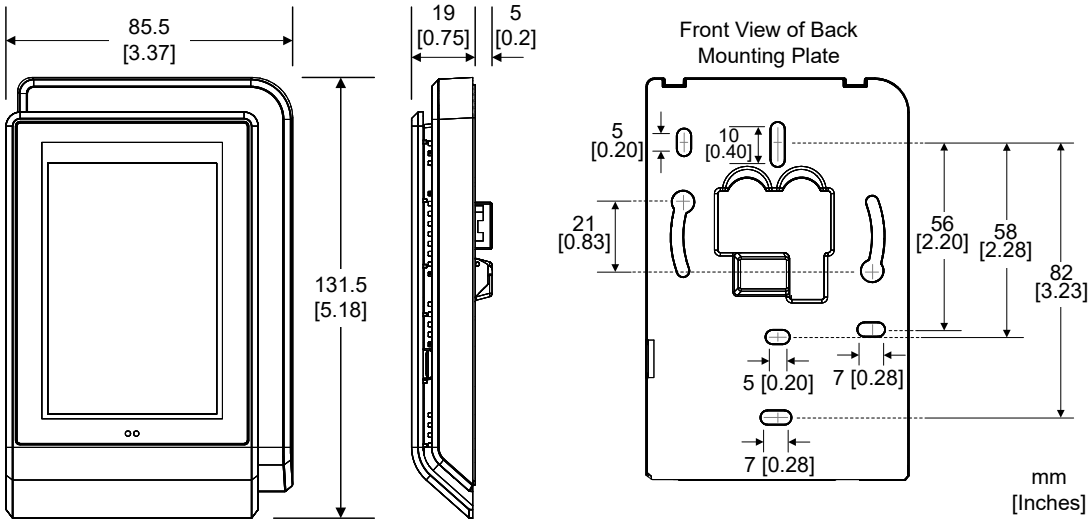
1. Tolerance based on span gas of ±2% and ABC Logic enabled.

LCD Characteristics

Display Type	Full color, backlit, capacitive LCD touchscreen
Display Resolution	High definition (320 × 480)
Effective Viewing Area (W x H)	48.96 x 73.44 mm (1.93 × 2.89”)

Mechanical

Dimensions (H × W × D)	131.5 × 85.5 × 19.0 mm (5.18 × 3.37 × 0.75”)



Shipping Weight	0.2 kg (0.44 lbs)
Enclosure Material	ABS
Enclosure Rating	Plastic housing, UL94-V0
Color	white or black
Installation	wall mounting through mounting holes (see figure above for hole positions)

Environmental

Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 50°C (-4°F to 122°F)
Relative Humidity	0 to 90% Non-condensing

Standards and Regulations

CE

□ Emission	EN 61000-6-3: 2007 + A1: ed.2011; Generic standards for residential, commercial and light-industrial environments
□ Immunity	EN 61000-6-1: 2007; Generic standards for residential, commercial and light-industrial environments
□ Radio	EN 300 328 V2.1.1 November 2016; Wideband transmission systems Data transmission equipment operating in the 2.4GHz ISM and using wide band modulation
FCC	This device complies with FCC rules part 15, subpart B class B

UL Listed (CDN & US) — UL916 Energy management equipment

WEEE — All products are marked according to the Waste Electrical and Electronic Equipment (WEEE) directive.

RoHS — All materials and manufacturing processes comply with the RoHS directive.

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