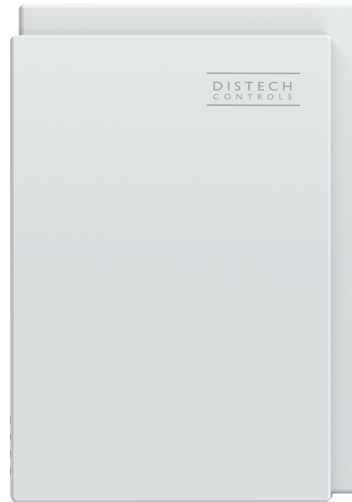




Allure™ EC-Smart-Air Series

Communicating sensors



Overview

The Allure EC-Smart-Air Series communicating sensors combine a precise environmental sensing in a discrete and alluring enclosure: temperature, humidity and CO₂.

Applications

The Allure EC-Smart-Air sensor series is compatible with the ECL series LonWorks® Controllers, ECB series BACnet® Controllers and ECLYPSE™ series BACnet/IP and Wi-Fi Controllers, including the Smart Room Control solution.

Features & Benefits

Installation and Servicing Cost Savings

Free up Controller Inputs

The sensor is wired to the dedicated subnet port of Distech Controls' ECL series LonWorks Controllers, ECB series BACnet Controllers and 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.

Single Cable Connection

As a communicating sensor, both power and communications pass through a single Cat 5e cable, for reduced installation costs and for easier installation or system retrofit.

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.

Reduce Commissioning Time

Simple to configure and to commission: simply drag and drop the device's block into your *EC-gfx* Program code for "plug-and-play" installation.

ABC Logic Self-Calibration System

The patented ABC Logic self-calibration system eliminates the need for manual CO₂ calibration in most applications. ABC Logic guarantees lifetime CO₂ calibration.

Air Quality and Optimised Energy Efficiency

Temperature Sensing

All models come with an on-board temperature sensor for a precise feedback based temperature control.

Humidity Sensing

Optimize the occupants' well-being by measuring the current relative humidity to maintain an ideal level for comfort.

CO₂ Sensing

Achieve energy efficiency with a CO₂ sensor as a part of the demand-controlled ventilation strategy that adjusts the amount of outdoor air intake.

Model Selection

Model	Temperature	Humidity	CO ₂
Allure EC-Smart-Air	■		
Allure EC-Smart-Air-H	■	■	
Allure EC-Smart-Air-C	■		■
Allure EC-Smart-Air-CH	■	■	■

Product Specifications

Power Supply Input

Voltage ————— 16 VDC maximum, Class 2
Power Consumption ————— At the connected controller, an additional 0.5 VA per CO₂ sensor model (peak consumption: 1.5 VA) and 0.25 VA per non-CO₂ sensor model.

Communications

Rate ————— 38 400 bps
Communications ————— RS-485
Wiring ————— Cable length: 600 ft (180 m) maximum
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)

Temperature Sensor

Type ————— 10 kΩ NTC Thermistor
Range ————— 41°F to 104°F (5°C to 40°C)
Accuracy ————— ± 0.9°F (± 0.5°C)
Resolution ————— 0.18°F (0.1°C)

Humidity Sensor

Accuracy ————— ±3%
Resolution ————— 1%

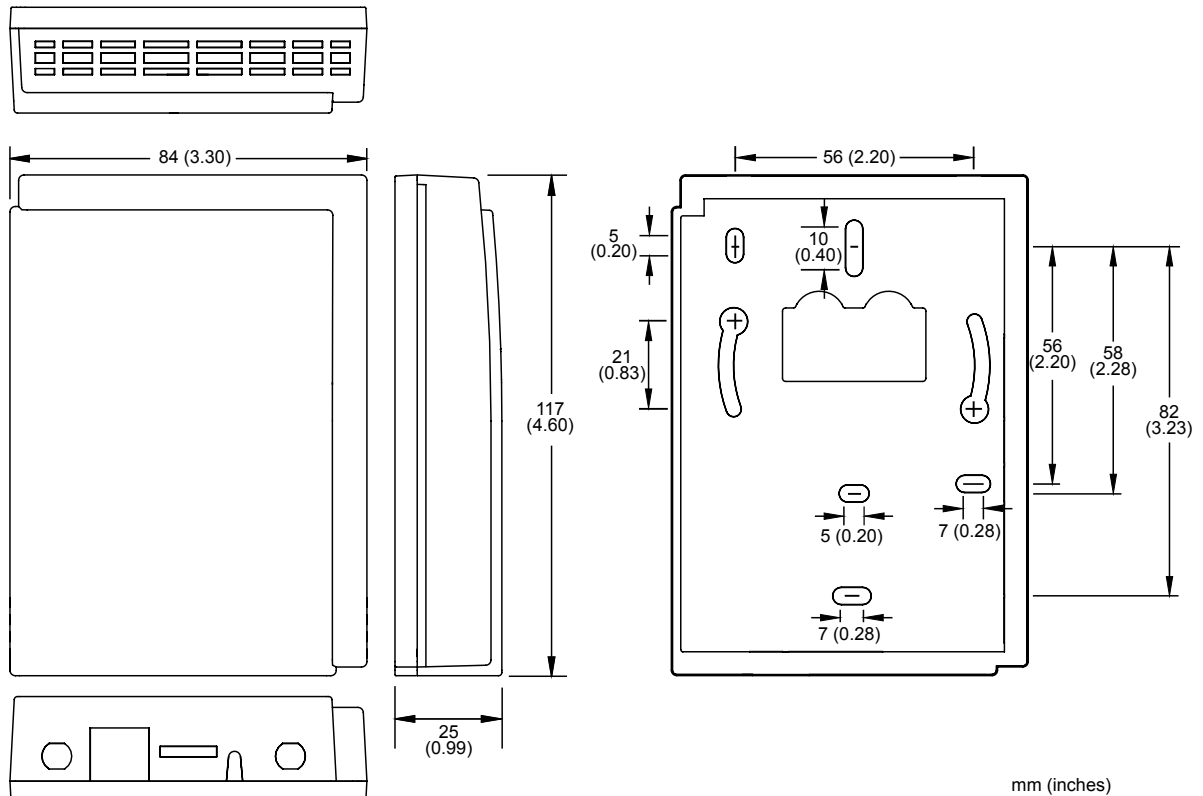
CO₂ Sensor

Measurement Range ————— 0 to 2000 ppm
Operating Elevation ————— 0 to 16000 ft (0 to 4877 m)
Warm-up Time ————— < 2 minutes (operational), 10 minutes (maximum accuracy)
CO₂ Accuracy ————— 400-1250 ppm ± 30 ppm or 3% of reading, whichever is greater¹
————— 1250-2000 ppm ±5% of reading + 30ppm¹
Temperature Dependence ————— ±0.11% FS per°F (0.2% FS per °C)
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.

Mechanical

Dimensions (H × W × D) ————— 4.60 × 3.30 × 0.99" (117 × 84 × 25 mm)



Shipping Weight:

- ☐ Models with CO₂ Sensing ————— 0.346lbs (0.157 kg)
- ☐ Models without CO₂ Sensing ————— 0.311lbs (0.141 kg)

Enclosure Material ————— ABS

Enclosure Rating ————— Plastic housing, UL94-V0 flammability rating

Color ————— white

Installation ————— wall mounting through mounting holes (see figure above for hole positions)
or switch box (North America / European / Asian / Swiss)

Environmental

Operating Temperature ————— 32°F to 122°F (0°C to 50°C)

Storage Temperature ————— -4°F to 122°F (-20°C to 50°C)

Relative Humidity ————— 0 to 90% Non-condensing

Ingress Protection Rating ————— IP20

Nema Rating ————— 1

Standards and Regulation

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

FCC ————— This device complies with FCC rules part 15, subpart B class B

UL Listed (CDN & US): *(Pending)*

- ☐ UL 916 ————— Safety Requirements For Energy Management Equipment
- ☐ CSA C22.2 No. 205-12 ————— Safety Requirements For Signal Equipement
- ☐ File number ————— E228719

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

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



Specifications subject to change without notice.

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