

▶ 03 Hub

03-HUB Sensor Hub

Description

The ceiling-mounted 03[®] Hub multisensor is part of the Red5 room control system designed for the modern smart building. The sensor hub replaces multiple room sensors with a one-per-room competitive cost solution when installed together with a Red5 room controller.

The sensor hub provides occupant- and location-based control for the modern office or meeting space. Using the 03 mobile app, room occupants can select from a list of preconfigured settings or they can interact with the sensor hub directly to manage room comfort.



Application

The 03 Hub is ideal for a wide range of room applications, such as offices, conference rooms, classrooms and apartments, incorporating location-based services and mobile app interactions into the occupant experience.

Models with I/O are ideal for controlling nearby lighting or for use in chilled beam applications.

Built-in Bluetooth[®] and optional EnOcean[®] technology allows for flexible room design with wireless devices.

Features

- ▶ Combines humidity, composite temperature, passive infrared motion, and light sensors in a single device
- ▶ Up to 8 sensor hubs per Red5-PLUS-ROOM controller; up to 2 sensor hubs per Red5-EDGE-ROOM controller
- ▶ Supports up to 32 EnOcean wireless input devices
- ▶ Bluetooth beacon broadcasts identifiers to Bluetooth-enabled smartphones with the 03 app installed
- ▶ Full-color LED ring provides silent indications to room occupant
- ▶ Audio tones provide user feedback

Specifications

Temperature Sensors

Composite temperature value
 $\pm 0.5^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$) with calibration

Digital temperature sensor
 $\pm 0.5^{\circ}\text{C}$ ($\pm 1.0^{\circ}\text{F}$)

Infrared temperature sensor
 $\pm 1.0^{\circ}\text{C}$ ($\pm 1.8^{\circ}\text{F}$) typical

Humidity Sensor

Accuracy $\pm 3\%$ for 20% to 80% RH
@ 15°C to 30°C (59°F to 86°F)

Motion Sensor

Passive infrared (PIR) motion sensor

Motion sensing range:

6.7 m (22 ft) diameter @ 3 m (10 ft) mounting height

5.5 m (18 ft) diameter @ 2.4 m (8 ft) mounting height

Light Sensor

$\pm (6 + 5\%$ reading) lx

Audio Input

2 microphones for acoustic occupancy detection

LED Ring

Full color articulated with 12 RGB LEDs

Universal Points (03-HUB-02 only)

Up to 2 inputs (16-bit), software configurable for the following types:

0–5 VDC

0–10 VDC

10 k Ω thermistor

Dry contact (using 10 k Ω thermistor software setting)

4–20 mA (using external 250 Ω resistor on 0–5 V setting)

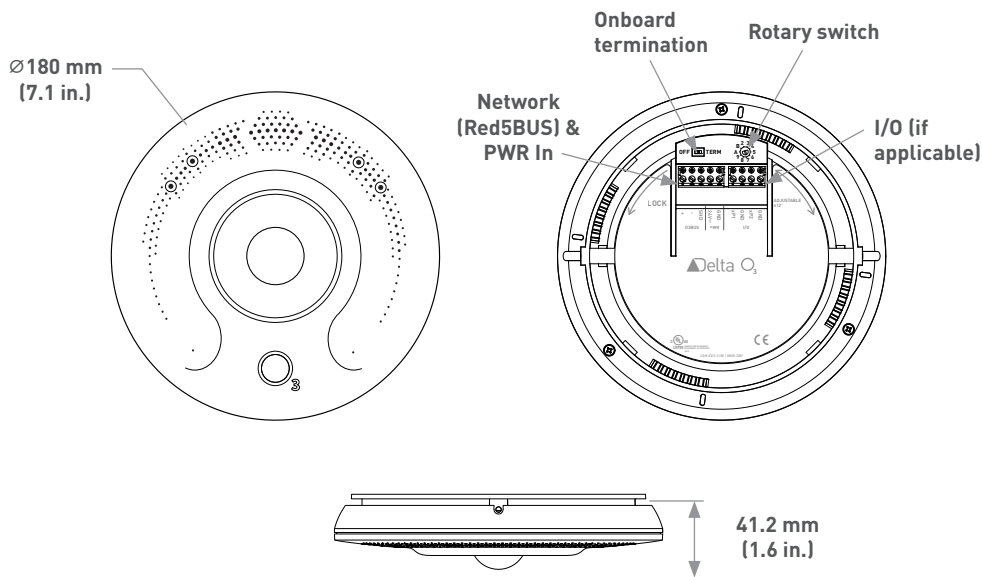
Up to 2 outputs (12-bit), software configurable for the following types:

0–10 V @ 20 mA max (sourcing)

1–10 V @ 10 mA max (sinking) for hardware rev 2.7 and later

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Order a Red5 system base unit with one or more hubs or modules:

Base Units

Red5-PLUS-ROOM	3 network ports, 2 Ethernet ports, 3 power outputs, Modbus RTU, NFC
Red5-EDGE-ROOM	2 network ports, 2 Ethernet ports, 1 power output, Modbus RTU, NFC

Sensor Hubs

03-HUB-00	Multisensor (temperature, humidity, light, motion, Bluetooth, LED ring, microphone and speaker) with mounting plate
03-HUB-02	Multisensor (temperature, humidity, light, motion, Bluetooth, LED ring, microphone and speaker), 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate
03-HUB-02-E8	Multisensor (temperature, humidity, light, motion, Bluetooth, EnOcean 868 MHz, LED ring, microphone and speaker), 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate
03-HUB-02-E9	Multisensor (temperature, humidity, light, motion, Bluetooth, EnOcean 902 MHz, LED ring, microphone and speaker), 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate
03-HUB-00-B	Multisensor (temperature, humidity, light, motion, Bluetooth, LED ring, microphone and speaker) with mounting plate, black plastic
03-HUB-02-E8-B	Multisensor (temperature, humidity, light, motion, Bluetooth, EnOcean 868 MHz, LED ring, microphone and speaker), black plastic, 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate
03-HUB-02-E9-B	Multisensor (temperature, humidity, light, motion, Bluetooth, EnOcean 902 MHz, LED ring, microphone and speaker), black plastic, 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate
03-HUB-02-B	Multisensor (temperature, humidity, light, motion, Bluetooth, LED ring, microphone and speaker), black plastic, 2 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink), with mounting plate

Specifications (Continued)

Audio Output

1.0 W mono speaker for tones and audio output

Device Addressing

Rotary switch

Connectors

Removable screw-type terminal connectors

Wiring Class

Class 2 / SELV

Power

24 VDC, 1 W typical, 7 W max (non-2xP) or 8 W max (2xP), Class 2*

*Power can be supplied from an 03-DIN controller

Communications

EnOcean (868 MHz or 902 MHz)
Bluetooth Low Energy beacon (V4.2)
Red5BUS port (CAN-based)
IR transmitter

Ambient Rating

0°C to 45°C (32°F to 113°F)
10% to 95% RH (non-condensing)

Dimensions

180 × 41.2 mm (7.1 × 1.6 in.)

Weight

350 g (0.77 lb)

Compliance

CE
EAC
FCC/IC
Bluetooth FCC ID: XPNINAB1
Bluetooth IC ID: 8595A-NINAB1
EnOcean 902 MHz
FCC ID: ZV-STM300U
IC ID: 713A-STM300U

Listings

cULus 916 Listed



Updated October 2023

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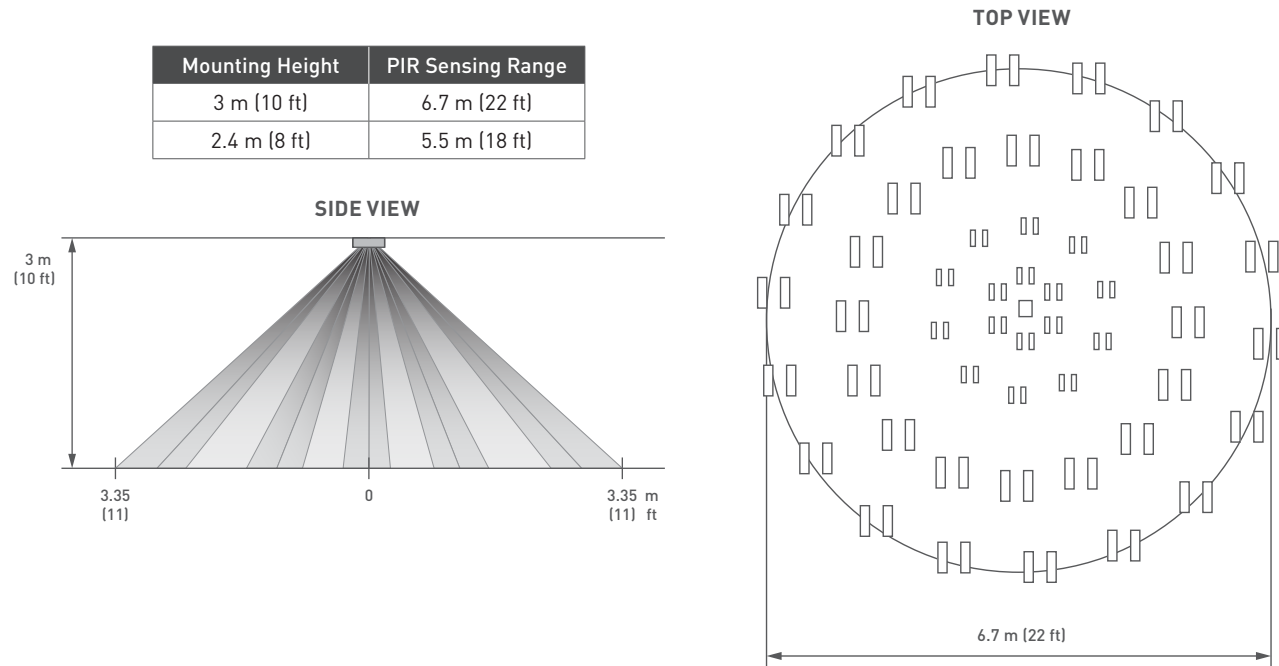
Red5 ROOM Modules

Red5-MODULE-4F4xP	FET I/O module: 4 universal I/O, 4 FET binary outputs
Red5-MODULE-8xP	I/O module: 8 universal I/O, input (0–10 V, 0–5 V, 10 kΩ) or output (20 mA source, 10 mA sink)
Red5-MODULE-1D00R	Access module, single door support
Red5-MODULE-DALI	DALI lighting module: DALI interface, 100 mA power output
Red5-MODULE-PoE	Power over Ethernet module
Red5-EXPAND-04	Power injector expansion for 03
Red5-MODULE-SMI	SMI module for motorized blinds: SMI interface, 30 mA power output

Power Supplies

DRC-24V30W1AZ	Chrome Line Voltage DC power supply 24 V 30 W Class A EMC
DRC-24V60W1AZ	Chrome Line Voltage DC power supply 24 V 60 W Class A EMC
DRC-24V100W1AZ	Chrome Line Voltage DC power supply 24 V 100 W Class A EMC
DRS-24V30W1NZ	Sync Line Voltage DC power supply 24 V 30 W Class B EMC
DRS-24V50W1NZ	Sync Line Voltage DC power supply 24 V 50 W Class B EMC
DRS-24V100W1NZ	Sync Line Voltage DC power supply 24 V 100 W Class B EMC

Passive Infrared Motion Coverage



Subject to change without notice.

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