

## Technical Specifications

# GLAS®

The GLAS smart thermostat keeps your home comfortable, saves energy, and its clean translucent interface reimagines any space. Johnson Controls invented the room thermostat 135 years ago. With your family's comfort and energy savings in mind, we reinvented it with GLAS.

### Features

- 7 Day scheduling
- 3 Events available including; sleep, home, away
- Temperature setpoints per event
- Arrival anticipation: returns to a "home" state even if user isn't home yet, to ensure comfort when they return
- Pre-Start: pre-starts heating or cooling previous to end of sleep or away event to reach comfort set point at scheduled time
- Occupancy detection via integrated sensor to override schedule for comfort and energy savings
- Safety temperatures to protect building against excessive heat or cold
- Scheduled vacations

### Energy Reporting

- Daily 24-hour equipment run time energy saved compared to a standard thermostat when connected to Wi-Fi. Savings are based on integrated learning model of the HVAC system.
- History up to 7 days of energy saved
- Equipment run-time reporting when not connected to Wi-Fi
- Daily 24-hour equipment run time
- History up to 7 days of equipment run time



Model Number: SiO2-10000

Johnson  
Controls

### Outdoor Weather Information when Connected to Wi-Fi, Including:

- Current Forecast
- Current Temperature
- Temperature high and low for the day
- Humidity
- Windspeed

### Operating Notifications

- Change air filter reminder
  - **Manual:** Timing based default 6 months. Options: of 3 months, 6 months, 9 months, 12 months
  - **Auto:** Based on fan runtime and air quality
- Service reminder
  - Timing based default 6 months. Options: of 3 months, 6 months, 9 months, 12 months
- Poor indoor air quality reading
- Safety control activated
- Thermostat connection unavailable (only when connected to Wi-Fi)

### Microsoft Cortana Voice Control

#### Available voice commands and responses include:

Change temperature setpoint | Change mode (Auto, heat, cool, off) | Change state (home, away, sleep, vacation) | Read current temperature | Read air quality  
Turn fan on/off

#### Additional Cortana Skills

Traffic | Weather | Timer | Calendar | Reminders  
Lists

## Specs

**Depth:** 1.18 in. (30 mm)

**Width:** 5.6 in. (142 mm)

**Height:** 5 in. (127 mm)

**Weight:** 0.5 lbs. (0.226 kg)

### Overall Dimensions

1.18 in. D x 5.51 in. W x 5 in. H

(30mm x 140mm x 127mm)

Base unit dimensions

5.51 in. W x 1.85 in. H

(140mm x 47mm)

### Display

Translucent OLED 5.91", 16:9 aspect ratio, with integrated touch controller

**Resolution:** 480(H) X RGB X 272(V), 16M colors

**Viewing:** 90° +/- 30°

### Optical characteristics (typical)

- **Luminance:** 600 cd/m<sup>2</sup>

### Integrated Sensors

- Temperature
- Humidity
- tVOC & eCO<sub>2</sub> Air Quality sensors
  - Indoor real-time air quality reporting including:
    - Total volatile organic compounds (tVOC)
    - Equivalent carbon dioxide (eCO<sub>2</sub>)
    - Humidity
  - Outdoor real-time air quality reporting including:
    - Allergens, including tree pollen, grass pollen and ragweed pollen
    - Ultra violet (UV) index
    - Air pollution index (API), including carbon monoxide, sulfur dioxide, nitrogen dioxide and ozone
- **Occupancy (far-field):** 15 ft. detection
- **Microphone:** Dual array, Cortana support
- **Speaker:** Audio feedback, Cortana support

### Wireless

**Wi-Fi:** 2.4 GHz, compatible with 802.11 b/g/n networks

### Mobile Support

- Android (4 or later) and iOS (8 or later) mobile devices
- Web access including Safari, Chrome, Edge, and Firefox
- Automatic, OTA software updates for thermostat device and mobile apps
- Can work with up to 20 thermostats per location
- Can create up to 6 locations per user account

### Operating System:

- Windows 10 IoT core

### Language:

- English

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## In the Box

- GLAS smart thermostat
- Front cover
- 6.9" x 7.4" backplate
- 4 screws
- 4 drywall anchors
- 4 to 5 wire adapter

## Compatibility

GLAS can control the following types of split or packaged units:

- Conventional, single stage up to 2H/2C
- Heat pump, up to 2H/2C/2 Aux Heat

GLAS is compatible with the following HVAC configurations:

- Gas Heat
- Oil Heat
- Electric Heat
- Ground-, Air-, and Water-source heat pumps
- Dual-fuel support for Heat Pump