GLAS Smart Thermostat

Product Bulletin

SIO2-00000, SIO2-10000

The GLAS Smart Thermostat is a multifunctional device that enables comfortable and energy-efficient spaces. This room thermostat is designed to configure temperature controls, monitor air quality, and assist with energy savings in most residential and limited commercial applications. It offers a simple, state-of-the-art, 40% translucent, color touchscreen display that makes the user interface easy to navigate.

The translucent, color touchscreen on the device displays the current temperature, humidity, occupancy, heating or cooling status, date, and time. The display also includes local weather conditions and forecasts when connected to Wi-Fi.

The GLAS Smart Thermostat can be paired through Wi-Fi to receive access to the device through the user's smart phone or tablet. The mobile application is compatible with iOS and Android smart phones and tablets. With the mobile app and optional voice control from Microsoft Cortana, control of GLAS is accessible from anywhere.

When connected to Wi-Fi, an integrated Microsoft Cortana® intelligent assistant allows optional voice control of GLAS through the device, the Cortana mobile app, or Cortana on your Windows PC. Additionally, with a Wi-Fi connection and a registered account, Google Assistant-enabled and Amazon Alexa-enabled devices can be connected to allow for remote voice control of the device.

GLAS functions not only as a smart thermostat, but also an air quality monitoring device. The digital thermostat includes indoor air quality measurements for total volatile organic compound (tVOC) and eCO_2, as well as outdoor air quality measurements for Air Quality Index (AQI), UV index, and allergens when connected to Wi-Fi.

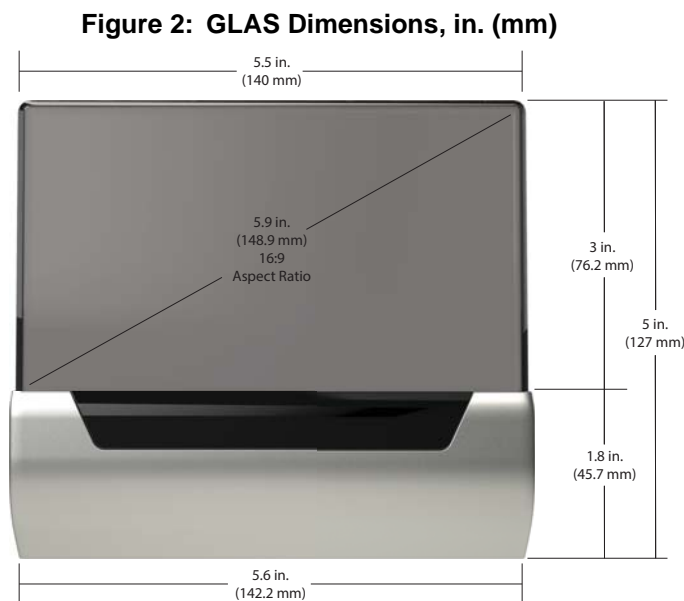**Figure 1: GLAS Smart Thermostat**

Repair Information

If the GLAS Smart Thermostat fails to operate within its specifications, replace the unit. For a replacement thermostat, contact the nearest customer service center or Johnson Controls® representative.

Features and Benefits

- **Wi-Fi Connectivity**—Provides accessibility and control of the device through the user's smart phone or tablet.

- **Cortana Voice Assistant**—Integrated speaker and microphone allow you to manage the thermostat through voice control on the thermostat with a Microsoft account.

- **Amazon Echo® and Google Home® Integration**—Connects GLAS through the Amazon Alexa or Google Home app to allow remote voice control of the thermostat.

- **Energy Reporting**—When connected to Wi-Fi, the device displays hours of runtime and percentage of energy saved compared to a standard thermostat kept at the user's home setpoints. When not connected to Wi-Fi, it displays only hours of equipment runtime.

- **Indoor Air Quality Monitoring**—Integrated sensor for indoor air quality to monitor the average Total Volatile Organic Compounds (tVOC) and Equivalent Carbon Dioxide (eCO$_2$).

- **Indoor Humidity Monitoring and Control**—Integrated humidity sensor allows you to monitor relative humidity inside the space and provides an option to control when connected to a humidifier, dehumidifier, or ventilator. Automatic humidity setpoint selection is available when connected to Wi-Fi with a valid postal code.

- **Outdoor Air Quality Monitoring**—When connected to Wi-Fi, provides level indicators of allergens (pollen), Air Quality Index (ozone, nitrogen dioxide, carbon monoxide, and sulfur dioxide), and UV index.

- **Outdoor Weather**—When connected to Wi-Fi, based on postal code, provides forecast, real-time temperatures, wind speeds, and highs and lows for the day.

- **Fan Control**—Provides a variety of fan options, including manual runtime, minimum hourly runtime, and smart circulation to save energy when air quality is good.

- **Seven Day Scheduling**—Allows user to schedule one-time or reoccurring events. Events include Home, Away, and Sleep with defaulted temperature preferences that can be manually adjusted.

- **Integrated Occupancy Sensor**—Reduces energy usage by adjusting heating or cooling based on detected space occupancy. Sensor can override scheduled events.

- **Integrated Proximity Sensor**—Responds to movements and illuminates device for ease-of-use.

- **Vacation Mode**—Create scheduled vacation events when space is unoccupied for an extended period of time.

- **Ease of Installation**—Wire detection simplifies installation by detecting which of the wires are connected to the thermostat, as well as an included C-wire adapter for systems without a common (C) wire.

- **Automatic Upgrades**—When connected to Wi-Fi, accepts over the air updates to keep functionality and security up to date.

- **Notifications**—Option to enable notifications, including; when to change air filter, HVAC service maintenance reminder, poor indoor air quality, and indoor temperature safety range.

Physical Features and Dimensions

Figure 2: GLAS Dimensions, in. (mm)

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Home Screen

The home screen is the default view that shows the current temperature and allows adjustments.

Figure 3:   Home Screen in Auto Mode

Table 1:   Home Screen Descriptions

Feature	Description
1	Access media tray including Cortana, settings, notifications, Wi-Fi, volume, and brightness
2	View the current state of your thermostat at a glance
3	The current temperature of your space
4	Indicates when voice command is enabled and allows the microphone to be muted and un-muted
5	Adjust your current heating temperature preferences (visible only in Auto and Heating modes)
6	Adjust your current cooling temperature preferences (visible only in Auto and Cooling modes)

Quick View

The quick view gives you easy access to some of the most frequently used features, like scheduling, air quality, and energy savings.

Figure 4: Quick View

Table 2: Quick View Descriptions

Feature	Description
1	Access media tray including Cortana, settings, notifications, Wi-Fi signal strength, volume, and brightness
2	The indoor temperature and relative humidity in the space
3	Total energy savings for the last 7 days, select for daily detail
4	Indicates when voice command is enabled and allows the microphone to be muted and un-muted
5	The current outdoor temperature, forecast, and the highs and lows for the day based on your postal code with Wi-Fi connection
6	View and edit your current schedule
7	See your current indoor and outdoor air quality based on measurements tVOC, $eqCO_2$, allergens, AQI, UV index, and relative humidity

Control View

Control view allows you to change your thermostat mode, change fan commands, and place your system in home or away states.

Note: Only the settings that work with your current HVAC system are available for selection on the control screen.

Figure 5: Control View

Table 3: Control View Descriptions

Feature	Description
1	Access media tray including Cortana, settings, notifications, Wi-Fi, volume, and brightness
2	Device keeps the space at the Home setpoints, depending on the schedule
3	Auto mode will heat and cool automatically to stay within the selected setpoints
4	Heat mode will heat to stay within the selected setpoints
5	The fan will run automatically when heating or cooling
6	Indicates when voice command is enabled and allows the microphone to be muted and un-muted
7	Device keeps the space at the Away setpoints
8	Off mode will keep your heating and cooling system off unless safety features are enabled and the heat or freeze protection temperatures are reached
9	Cool mode will cool to stay within the selected setpoints
10	Manually power on fan for air circulation with optional runtimes of 15 minutes, 30 minutes, 1 hour, 2 hours, 4 hours, and Stay On

Media Tray

Access additional GLAS features with the drop down menu from any of the main screens, Home, Quick View, or Control View.
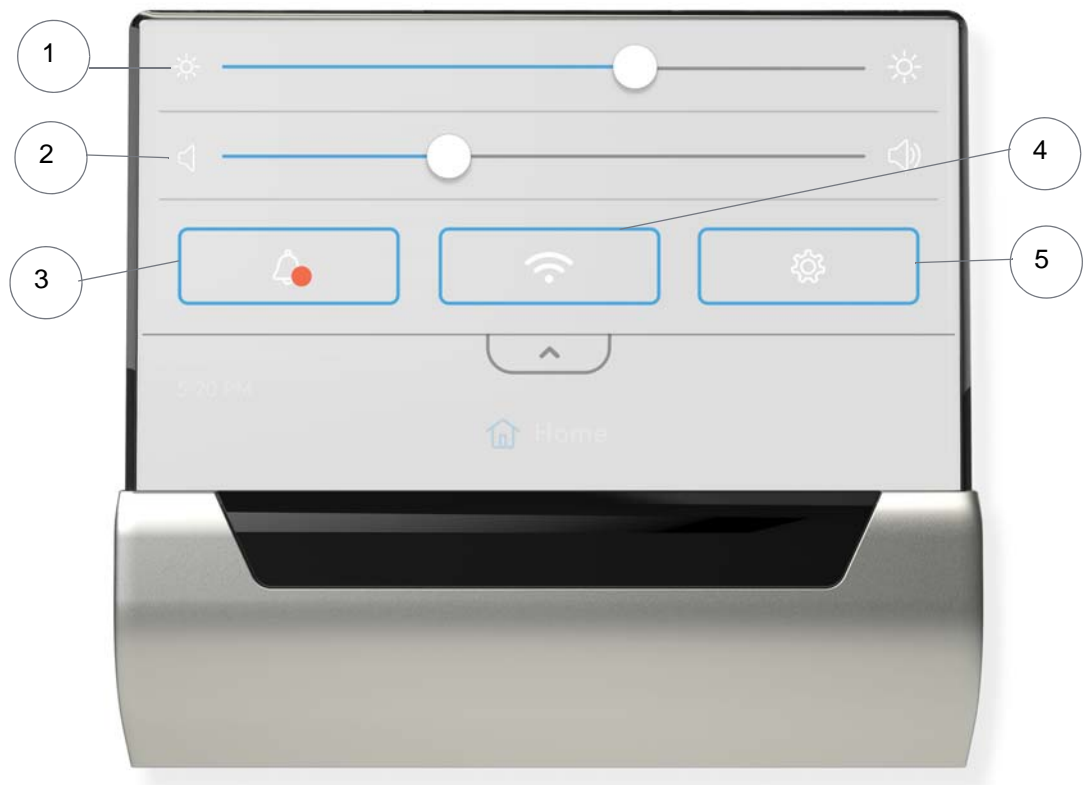
Figure 6: Media Tray Menu

Table 4: Media Tray Menu

Feature	Description
1	Adjust device screen brightness
2	Adjust Cortana volume (when Cortana is enabled)
3	View notifications
4	View or set up Wi-Fi
5	Access device settings

Ordering Information

Table 5: Ordering Table

Product Code Number	Description
SiO2-00000	Wi-Fi Smart Thermostat for commercial applications
SiO2-10000	Wi-Fi Smart Thermostat for residential applications exclusive for retail

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