



Product Data

Symbio™ 800 Controller

Data Sheet



Ordering Number:
X13651678001

SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

October 2023

BAS-PRD041C-EN

TRANE
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Trademarks

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Overview

The Symbio™ 800 equipment controller is a factory-installed, application specific, and programmable controller designed to control chillers, air-handlers, and large packaged HVAC equipment. The optional user interface features a touch sensitive color screen that provides the facility manager at-a-glance operating status, performance monitoring, scheduling changes, and operating adjustments. Additional advanced features include automated controller backup, and optional features such as secure remote connectivity, wireless building communications, mobile device connectivity, and custom programming with expandable inputs/outputs (I/O).

Advantages

Advantages		Benefits
Connected	Convenient access from anywhere with any device to enable advanced monitoring, troubleshooting, and energy management. Seamless integration across multiple standard open protocols.	<ul style="list-style-type: none"> • Minimum first cost • Maximum comfort • Minimized downtime • Minimal operating costs • Superior building and occupant productivity
Flexible	Reduced installation, hardware, and labor costs - ability to factory-install on equipment or field-install in a variety of locations.	
Reliable	Maximum equipment uptime and lifespan, minimized maintenance and troubleshooting costs.	

Features and Benefits

Symbio™ 800 Feature	Benefit
Multiple, open standard protocol support <ul style="list-style-type: none"> • BACnet (Air-Fi®, MS/TP or IP) • Modbus (TCP/IP or RTU) • LON (optional) 	Simplified, lower cost, and more flexible integration with common open standard protocols with Trane or competitive BAS systems and controllers.
Common integration strategies and equipment specific points lists	Simplified, lower cost, and uncompromised integration.
Application specific, configurable, and programmable	Reduced project costs with superior reliability, comfort, performance, and installation flexibility.
Smart inputs and outputs	Smart analytics provide superior reliability during the lifetime of the equipment with minimal downtime.
Data logging	Standard, local, or remote intuitive review and analysis of equipment, zone, and building performance.
Local scheduling	Capable of operating in stand-alone scheduled operation without a building automation system, or as a temporary backup schedule - to provide continuous comfort and energy savings.
Micro SD card backup/restore	Faster, low-cost controller replacement with minimal downtime. Up to 10 scheduled controller backups ensure current controller information is maintained.

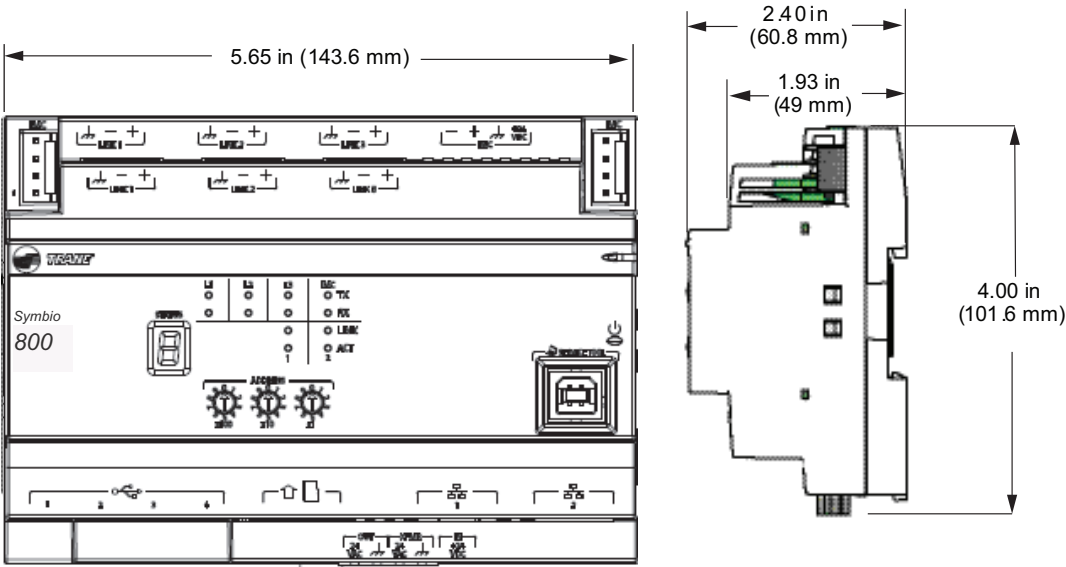
Options

Symbio™ 800 Feature	Benefit
Access your Symbio 800 controlled equipment from anywhere	Trane Connect™ provides an easy and secure option to connect remotely to a Symbio 800 controller.
Expandable inputs/outputs (I/O)	If additional I/O is required, any combination of XM30, XM32, XM70, and XM90 expansion modules can be used. The Symbio 800 controller supports up to 500 combined I/O terminations. See the <i>Symbio™ 800 Controller Installation, Operation, and Maintenance</i> (BAS-SVX080*-EN) for more information.
User security with audit trail support	Flexible and secure access for multiple users allows monitoring, overriding/releasing points, custom report editing, and tracking changes by users.
Optional rugged color touch-screen user interface	Allows for easy navigation for viewing data and making operational changes.
Wi-Fi module	Enables the operation of wireless service tools for increased technician productivity and flexibility.

Specifications and Agency Compliance

Controller Specifications	
Input power	24 Vdc +/- 15%, 400mA maximum
Storage temperature	-67°F to 203°F (-55°C to 95°C), Humidity: Between 5% to 95% (non-condensing)
Operating temperature	-40°F to 158°F (-40°C to 70°C), Humidity: Between 5% to 95% (non-condensing)
Environmental rating (enclosure)	IP3x (ingress protection)
Time clock	On-board real time clock with lithium battery (BR2032) back-up, 10 year battery life
Mounting weight	Mounting surface must support 1.3 lb. (0.6 kg)
Processor	Arm A9 Cortex Dual Core
Memory	FLASH 4 GB eMMC SDRAM 1 GB DDR3
<ul style="list-style-type: none"> • UL916 PAZX, Open Energy Management Equipment • UL94-5VA Flammability • CE • FCC Part 15, Subpart B, Class B Limit • BTL Listed - Advanced Application Profile (B-AAC) 	

Dimensions



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