

# SYSTXBECW01-A, SYSTXBEC01-A & SYSTXBECN01-A Evolution® Connex™ Control



## Product Data



A12479

**NOTE:** Evolution® Connex™ Control compatible with Evolution® rated indoor equipment only.

US Patents: Carrier® U.S. Pat No. 7,243,004, Carrier® U.S. Pat No. 7,775,452, pointSET™ U.S. Pat No. 7,415,102

### EVOLUTION® CONNEX™ CONTROL

Bryant® specializes in creating a customized home comfort system tailored to your needs with our broad selection of residential heating and cooling products. The Evolution® Connex™ Control System is the ultimate control center for all of your system components. When you add an Evolution® Connex™ Control to a compatible variable speed furnace, fan coil, Evolution® System split or package unit, or small packaged product, you will enjoy longer heating and cooling cycles at lower fan speeds for a more consistent temperature throughout your home. By adding a variable speed, multi-stage, or 2-stage outdoor unit, you will enjoy extra benefits which include better humidity and temperature control as well as a more energy efficient comfort system. When paired with Evolution® Zoning controls, the Evolution® Connex™ Control allows you to create up to 8 zones of customized comfort.

The Evolution® Zoning system does not require a bypass damper, leaving air temperature (LAT) sensor, or field-installed power transformer.

Always install the latest version of software to enable all features of the system.

Over-the-Air software updates for Wi-Fi models connected to the Evolution server are automatically downloaded. Software updates via USB are available on HVACpartners, or at [www.MyEvolutionConnex.com](http://www.MyEvolutionConnex.com).

Wi-Fi® is a registered trademark of Wi-Fi Alliance Corporation.

### INDUSTRY LEADING FEATURES/BENEFITS

Bryant's revolutionary Evolution® Connex™ Control is the smart control of the future. Its unique system self-configuration and diagnostics capabilities make installation and service fast and accurate, helping to avoid costly call-backs. The Evolution® Connex™ Control features a high resolution display, making it easier to read. Intuitive prompts let you program everything from humidity levels to fan speeds, giving you the ultimate control over your home comfort. Other features include:

- 2-wire connection to Evolution® System two or more-stage outdoor equipment (including geothermal split units)
- 4-wire installation from each major component in the system
- Compatible with Evolution® System geothermal products (GC and GZ models). Energy Tracking feature for geothermal systems is available (Version 14 or later, with Entering Water Temperature sensor installed in heat pump)
- Evolution® Zoning System compatibility
- Intuitive on-screen prompts for ease of installation and service
- *Perfect Humidity™* System settings are the default no longer requiring increased system setup
- Complete integration of the temperature, humidity and ventilation in every season
- Auto mode selection to satisfy simultaneous heating and cooling demands via more aggressive Auto Changeover algorithm--installer must enable (Version 14 or later)
- 7-day programmability with Lifestyle Comfort Profiles and Touch-N-Go® features; complies with California Title 24 programmability requirements
- Easy timed-override schedule
- Simplified vacation schedules
- Day-at-a-glance programming for simplified ease of use
- Programmable fan by period
- TrueSense™ Dirty Filter Detection
- Indoor Air Quality pop up reminders
- General maintenance reminder messaging
- Wi-Fi® remote access capability (SYSTXBECW01-A & SYSTXBEC01-A models)
- Photo, dealer info, and software update USB upload capability
- Compatible with home automation through the SYSTXBBRCT01 or SYSTXBBRWF01 system access modules
- Compatible with communicating Evolution® System Small Packaged Products

## MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14
S	Y	S	T	X	B	B	E	C	W	0	1	-	A

**Product Type**  
Evolution® System

**Brand**  
Bryant

**Version**  
A

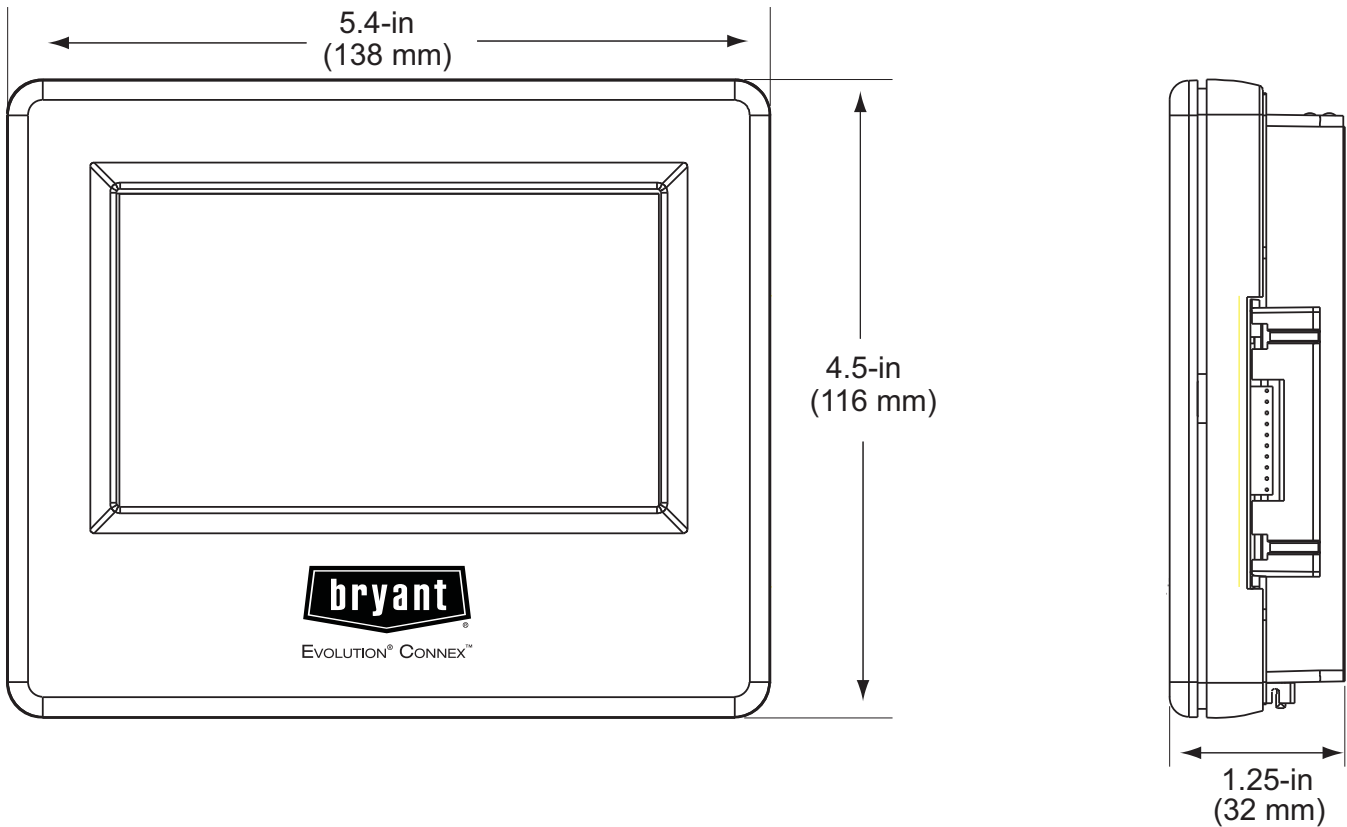
**Packaged Quantity**  
01

### Model Type

ECW – Evolution® Connex™ Control with Wi-Fi® & Wireless Access Point

ECC – Evolution® Connex™ Control with Wi-Fi® & Wireless

ECN – Evolution® Connex™ Control (non-Wi-Fi®)



**Fig. 1 - Unit Dimensions**

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## PRODUCT DATA INFORMATION

### Compatible Communicating Products

Compatible with most Evolution® System indoor and outdoor equipment built since 2004; see equipment specifications for details.

### Home Automation System Interface

The Evolution® Connex™ control can connect to a variety of Home Automation systems. Note that not all Home Automation systems may be compatible. Reference the latest version of the Application Specification titled “SAM Remote Access Application Specification,” available on HVACpartners.com to learn more about the latest Home Automation interfaces to the Evolution® systems. Work with the home automation supplier to see if the systems are compatible. If not, you may provide the “SAM Remote Access Application Specification” to the home automation supplier to develop an interface with the Evolution® Connex™ system. Always be sure to obtain the latest version of the application specification from HVACpartners, as we continually update and add home automation interfaces.

**NOTE:** The ability to remotely access and adjust the settings of the Evolution® Connex™ Control with the MyEvolution web and mobile applications or other system interfaces is dependent on the compatibility of the user's computer, home network, and/or mobile device, the Evolution® Connex™ Control and/or the MyEvolution web server or other system interfaces with, and the availability of, the user's Internet service provider or mobile device carrier service. Bryant Heating and Cooling Systems makes no representations or warranties, express or implied, including, to the extent permitted by applicable law, any implied warranty of merchantability or fitness for a particular purpose or use, about the compatibility of the user's computer, home network, and/or mobile device, with the Evolution® Connex™ Control, and/or the MyEvolution web server or other system interfaces, with, and the availability of the user's Internet service provider or mobile device carrier service, or that the ability to remotely access and adjust the settings of the Evolution® Connex™ Control will not be negatively affected by the network - related modifications, upgrades, or similar activity of the user's Internet service provider or mobile device carrier service.

### Physical Characteristics

**Dimensions:** See drawing

**Appearance:** Off-white color

### Electrical Characteristics/Communication

#### **Input Volt 24VAC**

Each device in the Evolution® System has a four-pin connector labeled ABCD. It is recommended that the following color code be used when wiring each device:

- A — Green = Data A+
- B — Yellow = Data B-
- C — White = 24VAC (Com)
- D — Red = 24VAC (Hot)

Always verify that the IDU and ODU are well-grounded, and that there are less than 10 volts AC/DC as measured between the cabinets of the IDU and ODU, while the equipment is operating at full capacity. If there is a larger voltage difference between the cabinets of the IDU and ODU, recheck the equipment grounding.

### Environmental Requirements:

#### **Operating Temperature/Relative Humidity:**

User interface and all sensors: 32°F to 104°F / 0°C to 40°C, 95% RH non-condensing

#### **Storage Temperature/Relative Humidity:**

User interface: - 40°F to 134°F / -40°C to 56.7°C, 95% RH non-condensing

### Feature Specifications:

Temperature set point range: 50°F to 90°F / 10.0°C to 32.0°C  
Separate heat and cool setpoints  
Programming days: 7 day  
Programming periods: Up to 5 periods per day  
Advanced Smart Setback (with programming)  
Touch-N-Go® feature  
Non-Programmable (installer selectable)  
Auto Changeover\* (may be disabled)  
Simultaneous Heat Cool Demand Algorithm for zoned systems  
Programmable fan (installer selectable)  
Humidity Sensor Offsets  
Auto Changeover Timer (installer adjustable)  
Smart Recovery (in heating and cooling)  
Hold function  
Copy functions: copy day of week; copy zones  
Permanent memory  
Humidity display and control  
Temperature sensor offsets (indoor and outdoor)  
TrueSense™ Dirty Filter Detection with compatible indoor equipment

\* See Installation Instructions for details on Auto Changeover and Simultaneous Heat/Cool Demand Algorithm operation.

### Wiring Requirements:

**Power supply:** 24VAC, 40 VA (minimum), 60 Hz, via indoor equipment ABCD Connector. Zoning systems with a large number of dampers, especially multiple dampers per zone, may require a separate, dedicated, field-installed 24vac power supply. The SAM module requires an independent, isolated, field-supplied 24vac power supply.

**Wiring material:** Standard thermostat wire 18 to 22 gauge. Use 18 AWG wiring for wire lengths over 25 feet. Shielded, twisted pair cable for the ABCD communication bus is optional, and may be helpful in electrically noisy environments, or for zoning systems with Smart Sensors.

### NIM Requirements:

IDU	Non-comm ODU	NIM required?
Furnace	1-stage A/C	No
Furnace	2-stage A/C	Yes
Furnace	1-stage HP	Yes
Furnace	2-stage HP	Yes

Fan Coil	1-stage A/C	No
Fan Coil	2-stage A/C	Yes
Fan Coil	1-stage HP	No
Fan Coil	2-stage HP	Yes

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## EQUIPMENT

DESCRIPTION	PART NO.
Evolution® Connex™ Control (non-Wi-Fi®)	SYSTXBBECN01-A
Evolution® Connex™ Control with Wi-Fi® Remote Access Capability	SYSTXBBECC01-A
Evolution® Connex™ Control with Wi-Fi® Remote Access Capability & Wireless Access Point	SYSTXBBECW01-A
Evolution® Network Interface Module (NIM)	SYSTXBBNIM01*

\* Required for ventilator control

\* Required for Hybrid Heat applications with non-communicating heat pumps

\* Required for use with 2-stage (non-communicating) AC or HP

## OPTIONAL ACCESSORIES

DESCRIPTION	PART NO.
Evolution® Remote Room Sensor (RRS)	SYSTXBBRRS01*
Large Decorative Backplate	SYSTXXXDBP01†
10 Pack Replacement – Green Indoor Unit Plug (ABCD Connector)	SYSTXGRPLG10
Outdoor Sensor	TSTATXXSEN01-B
Wireless Access Point (WAP) – Optional	SYSTXXXGWR01
Evolution® Remote Access Module, Broadband Cat-5 Wired	SYSTXBBRCT01
Evolution® Remote Access Module, Broadband Wi-Fi® Wireless	SYSTXBBRWF01
Accessory Power Transformer for SAM Modules**	SYSTXNNXFM01**

\* Not required, but may be used to remote sense indoor room temperature.

† Backplate dimensions – 5.75-in. (146 mm) wide x 6-in. (152 mm) high.

\*\* Available from RC/Totaline

## ZONING EQUIPMENT

DESCRIPTION	PART NO.
Evolution® Damper Control Module (4 Zone)	SYSTXBB4ZC01†
Evolution® Smart Sensor	SYSTXBBSMS01-E

NOTE: Each piece of the zoning equipment is purchased separately allowing for customization of the zoning application.

† One Damper Control Module for up to 4 zones. A second Damper Control Module is required for zones 5-8.

## DAMPER REPLACEMENT ACCESSORIES

DESCRIPTION	PART NO.
45° Actuator for round dampers	DAMPACT45DEG-R
90° Actuator for rectangular dampers	DAMPACT90DEG-R
Damper Control Module 1-amp Fuse	ATO1*

\*Available from RC.

## DAMPERS

DESCRIPTION		PART NO.
Round Dampers	6 in.	DAMPRND06INC-B
	8 in.	DAMPRND08INC-B
	10 in.	DAMPRND10INC-B
	12 in.	DAMPRND12INC-B
	14 in.	DAMPRND14INC-B
	16 in.	DAMPRND16INC-B
Rectangular Dampers	8 in. X 10 in.	DAMPREC08X10-B
	8 in. X 14 in.	DAMPREC08X14-B
	8 in. X 18 in.	DAMPREC08X18-B
	8 in. X 24 in.	DAMPREC08X24-B
	10 in. X 10 in.	DAMPREC10X10-B
	10 in. X 14 in.	DAMPREC10X14-B
	10 in. X 18 in.	DAMPREC10X18-B
	10 in. X 24 in.	DAMPREC10X24-B

## DAMPERS (CONT.)

DESCRIPTION		PART NO.
Slip-In Dampers	Side mount, 8 X 8	DAMPSLS08X08-B
	Bottom mount, 8 X 8	DAMPSLB08X08-B
	Side mount, 8 X 10	DAMPSLS08X10-B
	Bottom mount, 8 X 10	DAMPSLB08X10-B
	Side mount, 8 X 12	DAMPSLS08X12-B
	Bottom mount, 8 X 12	DAMPSLB08X12-B
	Side mount, 8 X 14	DAMPSLS08X14-B
	Bottom mount, 8 X 14	DAMPSLB08X14-B
	Side mount, 8 X 16	DAMPSLS08X16-B
	Bottom mount, 8 X 16	DAMPSLB08X16-B
	Side mount, 8 X 18	DAMPSLS08X18-B
	Bottom mount, 8 X 18	DAMPSLB08X18-B
	Side mount, 8 X 20	DAMPSLS08X20-B
	Bottom mount, 8 X 20	DAMPSLB08X20-B
	Side mount, 8 X 22	DAMPSLS08X22-B
	Bottom mount, 8 X 22	DAMPSLB08X22-B
	Side mount, 8 X 24	DAMPSLS08X24-B
	Bottom mount, 8 X 24	DAMPSLB08X24-B
	Side mount, 10 X 10	DAMPSLS10X10-B
	Bottom mount, 10 X 10	DAMPSLB10X10-B
	Side mount, 10 X 12	DAMPSLS10X12-B
	Bottom mount, 10 X 12	DAMPSLB10X12-B
	Side mount, 10 X 14	DAMPSLS10X14-B
	Bottom mount, 10 X 14	DAMPSLB10X14-B
	Side mount, 10 X 16	DAMPSLS10X16-B
	Bottom mount, 10 X 16	DAMPSLB10X16-B
	Side mount, 10 X 18	DAMPSLS10X18-B
	Bottom mount, 10 X 18	DAMPSLB10X18-B
	Side mount, 10 X 20	DAMPSLS10X20-B
	Bottom mount, 10 X 20	DAMPSLB10X20-B
	Side mount, 10 X 22	DAMPSLS10X22-B
	Bottom mount, 10 X 22	DAMPSLB10X22-B
	Side mount, 10 X 24	DAMPSLS10X24-B
	Bottom mount, 10 X 24	DAMPSLB10X24-B
	Side mount, 12 X 12	DAMPSLS12X12-B
	Bottom mount, 12 X 12	DAMPSLB12X12-B
	Side mount, 12 X 14	DAMPSLS12X14-B
	Bottom mount, 12 X 14	DAMPSLB12X14-B
	Side mount, 12 X 16	DAMPSLS12X16-B
	Bottom mount, 12 X 16	DAMPSLB12X16-B
	Side mount, 12 X 18	DAMPSLS12X18-B
	Bottom mount, 12 X 18	DAMPSLB12X18-B
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	Bottom mount, 14 X 14	DAMPSLB14X14-B
	Side mount, 14 X 16	DAMPSLS14X16-B
	Bottom mount, 14 X 16	DAMPSLB14X16-B
	Side mount, 14 X 20	DAMPSLS14X20-B
	Bottom mount, 14 X 20	DAMPSLB14X20-B
	Side mount, 16 X 16	DAMPSLS16X16-B
	Bottom mount, 16 X 16	DAMPSLB16X16-B
	Bottom mount, 16 X 20	DAMPSLB16X20-B

