# Spyder

# Honeywell



Evolved.

# The System You Need For Flexibility.

## The Widest Web Is Built On WEBs-AX<sup>™</sup>

Honeywell WEBs-AX<sup>™</sup> offers an affordable, integrated and open building control system. WEBs-AX is a state-of-the-art, web-enabled building information solution that provides the platform for Spyder<sup>®</sup> controllers, which give your project amazing flexibility. The entire system is internet-based, so all you need for access is a browser. With the WEBs-AX platform and strength of Spyder controllers, you'll have the versatility to choose from a collection of best-of-class control products ready to evolve and meet all of your building needs.

## WEBs-AX System Integration



Diagara



Spyder

### The Evolution

Spyder<sup>®</sup> continues to evolve and is now a more flexible controller that is easier to use and designed for faster installation and programming. Built to work with the WEBs-AX system, Spyder gives you the versatility you need to control more of your building's systems, and the flexibility to communicate with the protocols you're using. So whether you choose the Spyder, Spyder Micro or Spyder with Relays, you'll have the right controllers, which can be installed faster for more competitive bids. It's the smart web to weave.



## Adapting to Any Environment

Spyder controllers are designed to meet the demand of today's systems and whatever is coming tomorrow. By offering a wide range of models and point counts, Spyder is ready to support comprehensive building control requirements including:

- Plant Room Control
- Air Handling Unit Control
- Packaged Unit Control
- Fan Coil Unit Control
- Variable Air Volume Box (VAV) Control
- Heat Pump Unit Control

Spyder controllers have been loaded with plenty of inputs and outputs and built-in DC power. When an installation requires fewer inputs and outputs, you can choose the Spyder Micro. The compact size allows for mounting in tighter environments. If you are looking to save time on install, while using a relay, Spyder with Relays has the relay built into the computer board. And with improved programming flexibility, each model will continue to meet your needs as systems are upgraded.

## The Open System Advantage

Flexibility is a hallmark of Spyder controllers. You won't be locked into a closed system. Instead, the LonWorks<sup>®</sup> and BACnet<sup>®</sup> protocols provide the openness and interoperability to use Spyder controllers with other devices using the same protocols.

# Spyder Extends the Web of WEBS-AX



Zio





## The Zio® LCD Wall Module

The Zio<sup>®</sup> LCD Wall Module lets you control your Spyder like never before. The Zio Plus offers scheduling control, while the Zio and Zio Plus both offer balancing and the option for humidity control — directly from the wall unit.

Almost any variable in the controller can be viewed and modified directly from this easy-to-use, easy-to-install wall module. The Zio customizable display gives end-users a meaningful home screen by configuring to their specific application and preference. And it's two-wire, polarity insensitive bus simplifies wiring and frees up crucial inputs and outputs.

The Zio Lite is designed to help you win more bids. Available with and without a display, the Zio Lite lets you be a part of more jobs. With models that cover basic temperature control to advanced demand control ventilation, with its integrated CO<sub>2</sub> sensor, there is a Zio Lite model for every application. All Zio wall modules are Sylk<sup>™</sup>-enabled to save you time on installation.

### **TR20 Series Wall Modules**

The wireless and direct-wired wall modules in the TR20 family integrate seamlessly with a wide range of controllers, including Spyder Sylk-enabled. Both versions add fully programmable building automation control, and the wireless models eliminate the hassles and costs of wires and conduits while also making sensor relocation a breeze. Count on the TR20 wall modules for the accurate temperature readings and reliability you've come to expect from Honeywell sensors.



**TR20 Series** 

### Reveal<sup>™</sup> Touch Screen

Reveal literally puts the Spyder right at your fingertips with a high-definition, full-color LCD touch screen display for easy access to parameters, monitoring status, setpoint adjustments and overrides. Built on the Niagara<sup>AX</sup> Framework<sup>®</sup>, Reveal interfaces seamlessly with all WEBs-AX controllers making information accessible from all systems connected to these controllers.



# Spyder Delivers More Powerful Control



#### PROGRAMMABLE

Spyder offers improved application flexibility for faster programming that can be used on a wider variety of equipment. So you have the ability to create almost any application — from a small rooftop unit to a large chiller or boiler plant room.

#### **REMOVABLE TERMINAL STRIPS**

Service and wiring of the Spyder is fast and easy, and removable terminal strips enable wiring even when the controller is mounted in hard-to-reach locations. All you need to do is simply unplug the terminals with the wires, replace the controller and plug the wires back in.

#### **INTERNAL REAL-TIME CLOCK**

Get unheard of power in a unitary controller. With Spyder, there is no need to add a separate timing device — a clock is built right in. Even if your network schedule goes down, Spyder can have a backup schedule in every device.

#### **INTERNAL DC POWER SUPPLY**

Spyder controllers come with an internal DC power supply that saves you both the expense of external power and added wiring when there are additional power needs for things like CO<sub>o</sub> or humidity sensors.

#### ADAPTIVE INTEGRAL ALGORITHM CONTROL

Adaptive Integral Algorithm (AIA) control not only reduces the overshoot during control, it ensures that customer comfort is achieved more quickly. As a result, AIA control diminishes wear on the actuator by reducing the number of times it repositions, increasing the life of the actuator.



Spyder

## Sylk Bus Saves I/Os

Sylk is a two-wire polarity-insensitive in bus that lets you connect a Sylk-enabled device to Spyder without using I/O points. Instead of using analog inputs for temperature sensors, you can simply use Sylk and save the I/O for controlling other devices.

# Sylk I/O

Connected via the Sylk bus, the Sylk I/O Module is one Sylk-enabled device that expands a single Spyder controller's I/O count by 8-12 points. By using the existing Spyder controller's wire sheets for programming, Sylk I/O offers local and remote installation ease and flexibility all while expanding the web of opportunity.

## ILC Models Redefine Openness

Spyder individually licensed controllers (ILC) can be programmed from any brand Niagrara<sup>AX</sup> Framework<sup>®</sup> platform regardless of the brand of workstation/controller.

Easy VAV Balancing

Any Workbench

Spyder controllers use a Zio wall module or Honeywell RapidBalance™ for variable air volume box (VAV) balancing. RapidBalance is a stand-alone, easy-to-use, PC-based software program with the ability to perform everything needed to properly balance an VAV system.

# Spyder Micro Wiring Box

A simple enclosure designed specifically for the Spyder Micro controller, this wiring box is a perfect fit for applications where a single controller requires extra protection or the wiring cannot be exposed.

The Spyder Micro Wiring Box is designed for:

- Screwless controller mounting
- · Conduit connections via four half-inch knockouts
- Access to the Controller Service Pin, Service Jack, Controller Status LED and the VAV Air Sensor Bridge with or without the cover
- Compatible with all Spyder Micro controllers (Unitary, VAV with or without actuator)













	Controller Model	Communication Protocol <sup>a</sup>	Programmable Type	Universal Input	Digital Input	Analog Output	Digital Output
	PUB6438S PUB6438S-ILC	BACnet MS/TP	Unitary	6	4	3	8
	PUL6438S PUL6438S-ILC	LonWorks	Unitary	6	4	3	8
	PVB6438NS PVB6438NS-ILC	BACnet MS/TP	VAV	6	4	3	8
	PVL6438NS PVL6438NS-ILC	LonWorks	VAV	6	4	3	8
	PUB6438SR PUB6438SR-ILC	BACnet MS/TP	Unitary	6	4	3	8 Relays
	PUL6438SR PUL6438SR-ILC	LonWorks	Unitary	6	4	3	8 Relays
	PVB6436AS PVB6436AS-ILC	BACnet MS/TP	VAV	6	4	3	6
	PVL6436AS PVL6436AS-ILC	LonWorks	VAV	6	4	3	6
	PUB1012S PUB1012S-ILC	BACnet MS/TP	Unitary	1 <sup>b</sup>	0	1	2
	PUL1012S PUL1012S-ILC	LonWorks	Unitary	1 <sup>b</sup>	0	1	2
	PUB4024S PUB4024S-ILC	BACnet MS/TP	Unitary	<b>4</b> <sup>b</sup>	0	2	4
	PUL4024S PUL4024S-ILC	LonWorks	Unitary	4 <sup>b</sup>	0	2	4
	PVB4024NS PVB4024NS-ILC	BACnet MS/TP	VAV	4 <sup>b</sup>	0	2	4
	PVL4024NS PVL4024NS-ILC	LonWorks	VAV	4 <sup>b</sup>	0	2	4
	PVB0000AS PVB0000AS-ILC	BACnet MS/TP	VAV	0	0	0	0
	PVL0000AS PVL0000AS-ILC	LonWorks	VAV	0	0	0	0
	PVB4022AS PVB4022AS-ILC	BACnet MS/TP	VAV	<b>4</b> <sup>b</sup>	0	2	2
	PVL4022AS PVL4022AS-ILC	LonWorks	VAV	<b>4</b> <sup>b</sup>	0	2	2
	SI06042	Sylk	None	6	0	4	2
	SI04022			4	0	2	2
	SI012000			12	0	0	0

<sup>a</sup> BACnet models BTL listed

 $^{\rm b}$  One Universal Input (UI-1\*) is user selectable as a fast digital pulse meter

Spyder Individually Licensed Controller (ILC) is a fully programmable controller for any Niagara<sup>4x</sup> Framework® platform providing the greatest flexibility for expansion on any Niagara<sup>4x</sup> platform.

#### Find Out More

For more information on Honeywell Spyder<sup>®</sup> Sylk<sup>®</sup> enhanced controllers, call **1-800-466-3933** or visit **www.beyondinnovation.honeywell.com**.

#### **Automation and Control Solutions**

In the U.S.: Honeywell 1985 Douglas Drive North Golden Valley, MN 55422-3992

In Canada: Honeywell Limited 35 Dynamic Drive Toronto, Ontario M1V 4Z9

In Latin America: Honeywell 9315 N.W. 112<sup>th</sup> Avenue Miami, FL 33178 www.honeywell.com



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