NO GUESSWORK
NO REWORK
IT JUST WORKS

Honeywell Sylk® Technology

Honeywell

IN THE INTERNET OF THINGS EVERYTHING MATTERS

As one of the fastest growing IoT segments, buildings will soon host the majority of the “things” that create the Internet of Things. That means more automation for comfort and energy efficiency. More sensors to analyze conditions. More data to drive new capabilities.

It’s the foundation for smarter, more valuable buildings – yet without reliable connectivity, it doesn’t work.
So cut the risks from your wiring with Honeywell Sylk™ technology and Sylk Actuator Analytics.

EVERY CONNECTION COUNTS

Building integration is expected to surge over the next decade, which highlights two goals for every installation:

1. Ensure wiring is done right the first time, every time. It’s the essential infrastructure for connected capabilities.
2. Get optimal use from every I/O port. They’re a valuable resource for flexibility and expansion.

JUST TWO WIRES

Our unique Sylk bus makes it easy to achieve both goals on every job. With just two wires, you can get communication, feedback and control – and the polarity doesn’t matter. No shielded or twisted pair wires necessary, just a standard pair of low voltage sensor wires for reliable simplicity.
And no wasted I/O connections, either: Daisy-chain devices to control multiple functions from a single port. Sylk also facilitates intelligent fault detection and diagnostics for each device, while eliminating the inaccuracies inherent in analog signals.

Sylk™ Enabled
Easy 2-wire installation

NO REWORK

By some estimates, 5-10% of VAV systems are wired incorrectly. Moreover, bigger projects may mean more contractors – and a greater risk that some follow different wiring standards.

Even if devices are polarity protected against damage, returning to the field to find and fix those errors can cost a lot in time and labor.

With far fewer wiring mistakes possible, you can complete each job more quickly and move on to the next. This also makes it easier to bring on new or temporary labor without risks to speed or quality.

OPTIMIZE EVERY I/O

- Control multiple devices via a single Sylk bus I/O
- Preserves valuable analog I/O ports on controllers for other essential functions
- Supports device-embedded fault detection and diagnostics
- Operating parameters are digitally communicated without compromise from signal degradation

SIMPLICITY MEANS SAVINGS

- Use less wiring on each job
- Reduce installation, commissioning and service time
- Prevent costly fault tracking and rewiring

PROVEN VALUE FOR MORE APPLICATIONS

With a decade of use in controlling rooftop-unit economizers, Honeywell Sylk technology has proved so successful that we’ve expanded it into a complete range of field applications.

- **VAV Control**
- **RTU economizer control**
- **Air handling units**
- **Plant controllers**

TRACK ACTUATOR HEALTH ANALYSIS PROVIDED EFFORTLESSLY

SYLK ACTUATOR ANALYTICS

When you can track the health of each actuator, you can further optimize the performance of your system, and the service life of your equipment.

And to make that easier, we offer Sylk Actuator Analytics within the Niagara Framework™.
No operator analysis needed.
No extra charges. Just add the service to your WEBs N4 Supervisor.

ANALYTICS ON DEMAND

Sylk technology inherently facilitates fault detection and device diagnostics – so rather than having to perform your own analysis on raw data, the Sylk Actuator Analytics dashboard shows you what you need to know. See device health and usage, get alarms, and easily run reports.

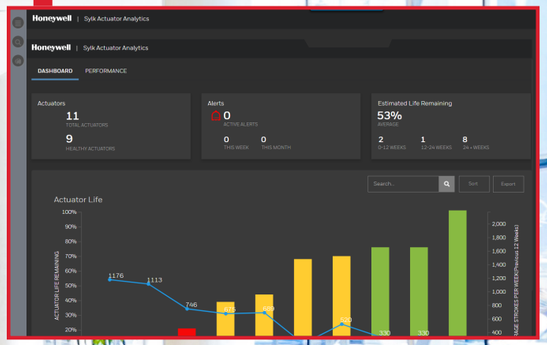
OPTIMIZE YOUR SYSTEMS & LIFE CYCLES

Don't get caught off guard by device failures, and don't waste time crunching numbers. When you can easily see the estimated life remaining as well as performance faults and programming errors, you can more efficiently plan and solve problems.

- See how quickly actuators are being used. Identify unexpected instances or clusters of heavy usages.
- Schedule maintenance when it will be most beneficial – and most convenient for your operations.
- Plan purchases and upgrades with more accurate information.

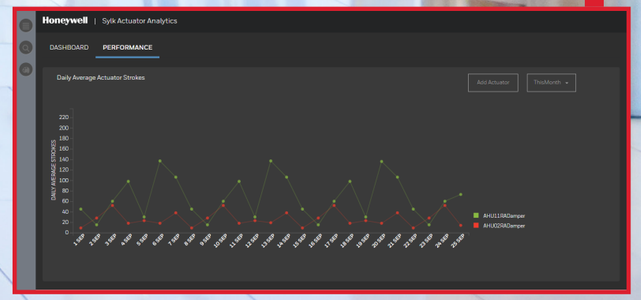
DASHBOARD

- See the total % of life remaining for each connected Sylk actuator
- Configure end of life alarms that appear in the supervisor alarm console
- Download reports of Actuator Life and Alarm History (CSV format)



PERFORMANCE MONITORING

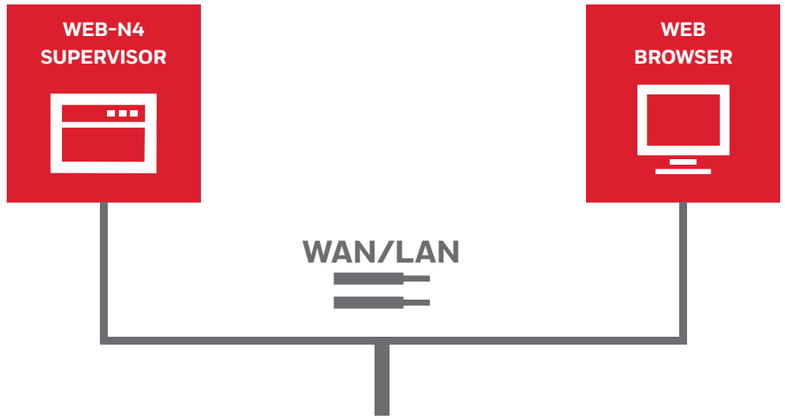
- Trend line of average actuator use (based on average strokes per week)
- Can select daily, weekly or monthly views for up to 12 actuators



SITE ARCHITECTURE FOR SYLK ACTUATOR ANALYTICS

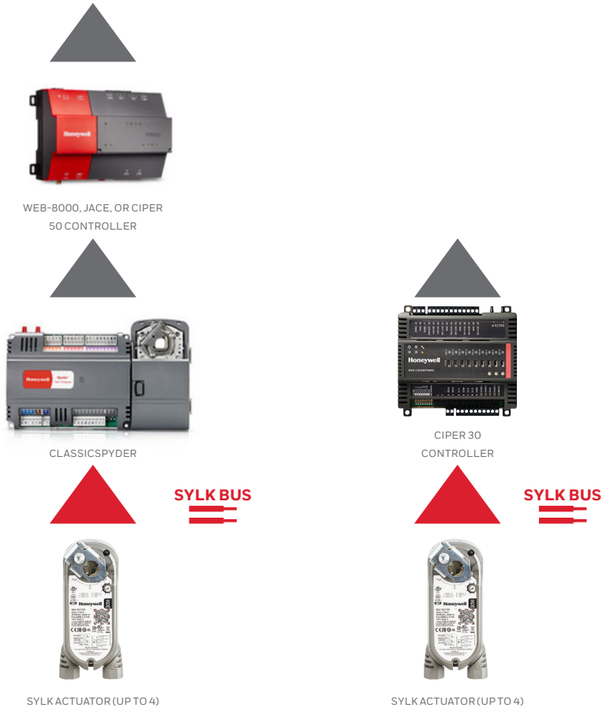
HOW IT WORKS

Sylk Actuators are connected via their Sylk Bus to a compatible controller, such as a Spyder Classic, or CIPer Model 30 controller.



For Spyder Classic controllers:
Connects to a WEB-8000 controller, which then connects to the WEBs N4 Supervisor.

For CIPer Model 30 controllers:
Can connect directly to the WEBs N4 Supervisor.



FLEXIBLE CONTROL

Sylk technology is built into Honeywell CIPer™, Spyder™ and Stryker™ controllers as well as JADE™ economizers, giving you the flexibility to create the control system you need with multiple Sylk-enabled devices.

Sylk Actuators

Part Number	Description
MS3103J1021	27 lb-in. Sylk Enabled Actuator
MS3105J3030	44 lb-in. Sylk Enabled Actuator (5 addresses & Analog Output) medium torque
MS3105J3130	44 lb-in. Sylk Enabled Actuator (5 addresses & Analog Output) 1 Aux switch medium torque
MS3110J1008	88 lb-in. Sylk Enabled Actuator
MS3120J1007	175 lb-in. Sylk Enabled Actuator

Sylk Controllers

Part Number	Description
WEB-C3036EPVBNH*	CIPer Model 30 VAV Controller with integral air flow sensor
WEB-C3036EPUBNH*	CIPer Model 30 Unitary Controller
WEB-VA423B24N	Spyder Model 5 VAV Controller with integral air flow sensor and actuator
WEB-RS5N	Spyder Model 5 Small Unitary BACNET MS/TP HVAC Controller
WEB-RL6N	Spyder Model 5 Large Unitary BACNET MS/TP HVAC Controller
Pxx Series*	Spyder Classic Controllers, Unitary or VAV, BACnet or LON, WEBS Brand or Open Brand
CVx Series	Stryker Controllers, VAV, BACnet or LON

*Controllers are compatible with Sylk Actuators

Sylk Wall Modules

Part Number	Description
TR120	Color touchscreen temperature sensor
TR120H	Color touchscreen temperature and humidity sensor
TR75	Temperature Sensor
TR75-H	Temperature and Humidity Sensor
TR71	Temperature Sensor
TR71-H	Temperature and Humidity Sensor
TR42	Temperature Sensor
TR42-H	Temperature and Humidity Sensor
TR42-CO2	Temperature and CO2 Sensor
TR42-H-CO2	Temperature, Humidity and CO2 Sensor
TR40	Temperature Sensor
TR40-H	Temperature and Humidity Sensor
TR40-CO2	Temperature and CO2 Sensor
TR40-H-CO2	Temperature, Humidity and CO2 Sensor

Sylk I/O Modules

Part Number	Description
SI06042	I/O Module with 6 Universal/0 Digital Inputs, 4 Analog/2 Digital Outputs
SI04022	I/O Module with 12 Universal/0 Digital Inputs, 0 Analog/0 Digital Outputs
SI012000	I/O Module with 4 Universal/0 Digital Inputs, 2 Analog/2 Digital Outputs

JADE Economizer and Enthalpy Sensors

Part Number	Description
W7220A1000	JADE Economizer logic module
C7400S1010	Sylk Temperature & Humidity Sensor

SYLK ACTUATOR COMPATIBLE FIELD DEVICES

Sylk Actuator Compatible Valves

Part Number	Description	Actuator Model Number			
		MS3103J1023/U 27 lb-in	MS3105J3030/U 44 lb-in	MS3110J1008/U 88 lb-in	MS3120J1007/U 175 lb-in
		Compatible Valve Size			
VBN2	2-Way Control Ball Valves	1/2 to 1-1/4 inch	1/2 to 3 inch		
VBN3	3-Way Control Ball Valves				
VRN	Pressure Independent Control Valves				
VBF2	2-Way Flanged Control Ball Valves		2-1/2 to 3 inch	4 to 5 inch	4 to 6 inch
VBF3	3-Way Flanged Control Ball Valves		2-1/2 inch	3 to 5 inch	
V5011F/G/N	2-Way Globe Valves		1/2 inch	3/4 to 1 inch	1 to 3 inch*
V5013N	3-Way Mixing Globe Valves				1 to 2 inch*
VGF	2-Way and 3-Way Flanged Globe Valves				2-1/2 to 3 inch*

Sylk Actuator Compatible Dampers

Torque (lb-in)	Aux Switches	Model Number	Maximum Damper Area 7 lb-in / ft2 (ft2)	Maximum Damper Area 5 lb-in / ft2 (ft2)
27	0	MS3103J1023/U	3.86	5.40
	2	MS3103J1223/U		
44	0	MS3105J3030/U	6.29	8.80
	1	MS3105J3130/U		
88	0*	MS3110J1008/U	12.57	17.60

Simplify your wiring:
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Honeywell Building Technologies
715 Peachtree St NE
Atlanta, Georgia 30308
honeywell.com

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