



NO GUESSWORK NO REWORK IT JUST WORKS

Honeywell Sylk® Technology

Honeywell

IN THE INTERNET OF THINGS EVERY THING 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, none of it works. Fortunately, you can cut the risks from your wiring with Honeywell Sylk™ technology.

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 both power and communication – and the polarity doesn't matter. No shielded or twisted-pair wires means no wrong wiring, and no rewiring. 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.



NO REWORK

By some estimates, 10–25% 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.

But when miswiring isn't 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.

SYLK ACTUATOR ANALYTICS

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.

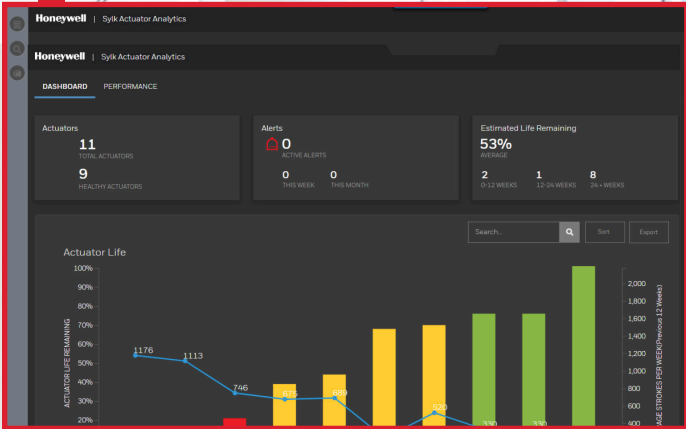
OPTIMIZE YOUR SYSTEMS & LIFE CYCLES

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.

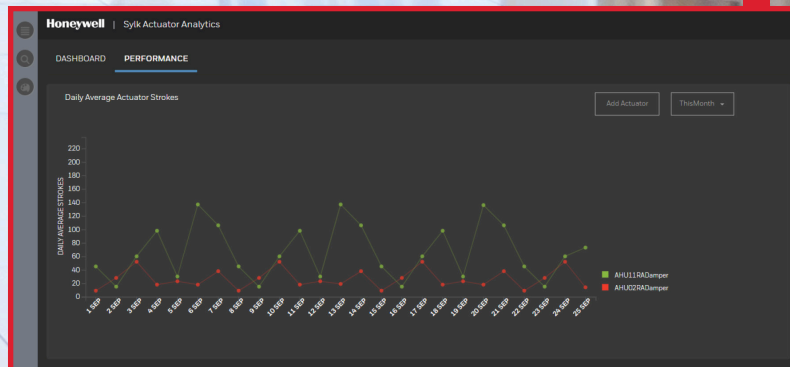
DASHBOARD

- 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

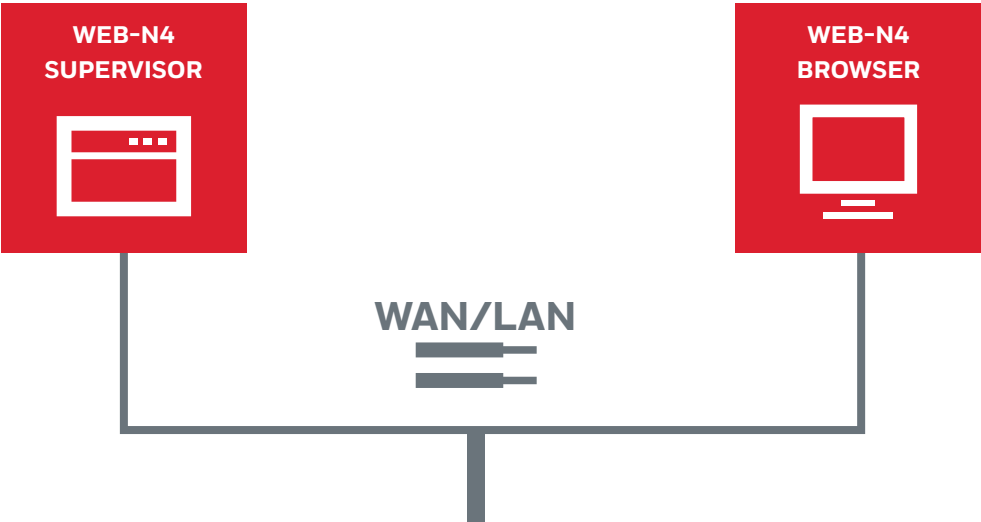
- Trend line of average actuator use (based on average strokes per week)
- Can select daily, weekly or monthly views for up to 12 actuators



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.

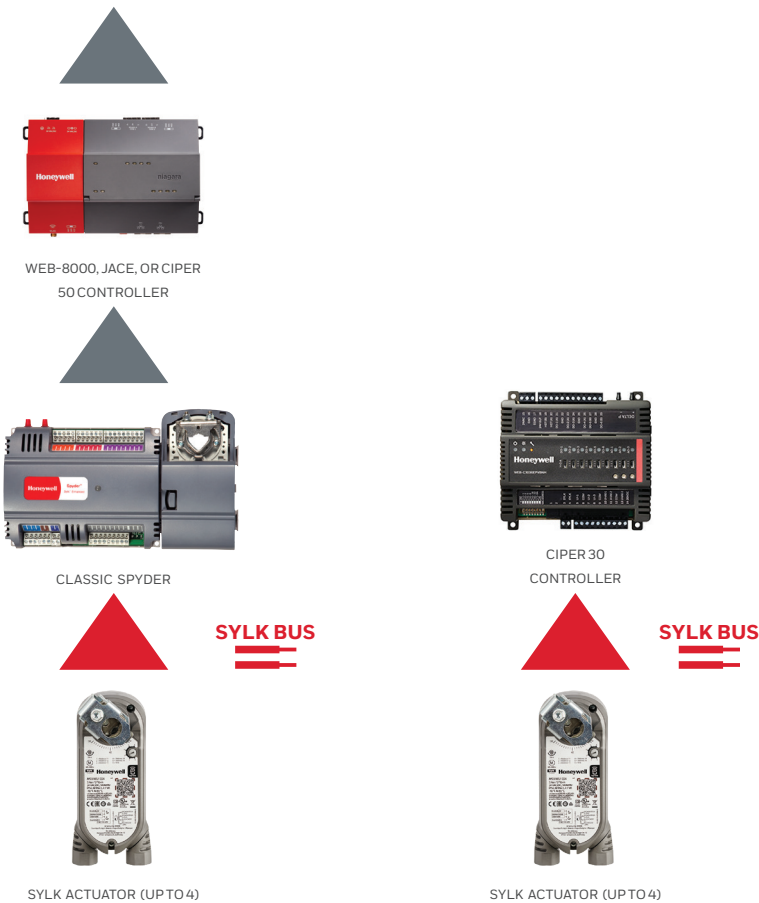


For Spyder Classic controllers:

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 | |
| MS3110J1008 | 88 lb-in. Sylk Enabled Actuator | |
| MS3120J1007 | 175 lb-in. Sylk Enabled Actuator | |



| 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-CO ₂ | Temperature and CO ₂ Sensor | |
| TR42-H-CO ₂ | Temperature, Humidity and CO ₂ Sensor | |
| TR40 | Temperature Sensor | |
| TR40-H | Temperature and Humidity Sensor | |
| TR40-CO ₂ | Temperature and CO ₂ Sensor | |
| TR40-H-CO ₂ | Temperature, Humidity and CO ₂ Sensor | |



| 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 | |
| PUB* _____ S PVB* _____ S PUL* _____ S PVL* _____ S | Spyder Classic Controllers, Unitary or VAV, BACnet or LON, WEBS Brand or Open Brand | |
| CVx | Strykers | |

*Controllers are compatible with Sylk Actuators

Sylk I/O Modules

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

| Sylok Actuator Compatible Valves | | | | | |
|----------------------------------|--------------------------------------|---------------------------|--------------------------|---------------------------|----------------------------|
| Part Number | Description | Actuator Model Number | | | |
| | | MS3103J1023/U 27 lb-in | MS3105J3030U 44 lb-in | MS3105J3030/U 44 lb-in | MS3120J1007/U 175 lb-in |
| | | Compatible Valve Size | | | |
| VB2 | 2-Way Control Ball Valves | 1/2 to 1-1/4 inch | 1/2 to 3 inch | | |
| VB3 | 3-Way Control Ball Valves | | | | |
| VRN | Pressure Independent Control Valves | | | | |
| VB2 | 2-Way Flanged Control Ball Valves | | 2-1/2 to 3 inch | 4 to 5 inch | 4 to 6 inch |
| VB3 | 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* |

| Sylok Actuators | | | | |
|-------------------|--------------|---------------|---|---|
| Torque (lb-in) | Aux Switches | Model Number | Max Damper Area | |
| | | | 7 lb-in / ft ² (ft ²) | 5 lb-in / ft ² (ft ²) |
| 27 | 0 | MS3103J1023/U | 3.86 | 5.40 |
| | 2 | MS3103J1223/U | | |
| 44 | 0 | MS3105J3030/U | 6.29 | 8.80 |
| 88 | 0* | MS3110J1008/U | 12.57 | 17.60 |

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

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THE
FUTURE
IS
WHAT
WE
MAKE IT

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