

**Town Council  
of the  
Town of Wakefield, Massachusetts**

Policy: Use of Flagpoles on Town Property  
Adopted: October 16, 2022  
Revised: **[DATE TBD]**

1. Application. This policy applies to all flagpoles that are, and from time to time may be, in use on real property belonging to the Town of Wakefield (the “Town”) and under the control of the Town Council. Such flagpoles include, without limitation, those located at the Town Hall, the Town Common, the Americal Civic Center and Veterans’ Field. Since the Town’s Home Rule Charter provides, in § 8-4(b), that the custody and control of all real property previously under the control of the School Committee and School Department has been transferred to the Department of Public Works, this policy applies to flagpoles on school grounds; however, in the interest of comity, the Town Council will endeavor to confer with the School Committee prior to any change in the flags approved for use on school grounds. This policy does not apply to flagpoles located on Town property that is under the control of other public bodies, including those located at the Library (which are governed by the Board of Library Trustees) and those at facilities owned by the Wakefield Municipal Gas and Light Department.

2. Expression of Official Sentiment; Not a Public Forum. Town flagpoles are not intended as a forum for free expression by the public. Rather, the decisions of the Town Council concerning which flags to fly, and when, and from which flagpoles, are intended as an expression of official Town sentiment. Flags permitted by this policy reflect the discretionary choice of the Town Council and the will of the Town government, and no group or individual shall have a right to dictate that choice.

3. American Flag. Except during inclement weather, the flag of the United States shall regularly be flown during daylight hours from at least one flagpole at each Town facility that has one or more flagpoles. It shall not be flown at night except when illuminated. It shall be flown at half-staff whenever ordered by the President of the United States, the Governor of Massachusetts or the Town Administrator of the Town to honor the death of a public officer. No flag or banner may be displayed above the flag of the United States, and no flag other than the POW-MIA flag shall be displayed below the American flag, on any Town flagpole (with the exception of the flagpole at the Galvin Middle School, which may display the four-star flag indicating the rank of General John Galvin beneath the American flag). The flag of the United States shall be flown in accordance with all applicable laws, including 4 U.S.C. §§ 1 – 10. In the event of any inconsistency between such laws and this policy, such laws shall take precedence.

4. POW-MIA Flag. In accordance with Mass. Acts 1986, c. 399, § 1, the POW-MIA flag shall regularly be flown during daylight hours from a flagpole on the grounds of at least one Town facility.

5. Other Flags and Commemorations. The following special rules shall apply:

a. On Flag Day, June 14, the Town Council, working in collaboration with the Veterans Advisory Board, shall host a public event to appropriately commemorate Flag Day, honor the American flag, and recognize Wakefield's veterans and active duty service members. No public events related to other flags shall be hosted by the Town of Wakefield or any Town boards, commissions, or committees on Flag Day, June 14.

b. The Americal Division flag shall be flown on one of the flagpoles at the Americal Civic Center at all times except for the month of June.

c. A flag appropriately commemorating Pride Month shall be flown on one of the flagpoles at the Americal Civic Center on the following dates: June 1 through June 17, and June 25 through June 30.

d. A flag appropriately commemorating Juneteenth shall be flown on one of the flagpoles at the Americal Civic Center on the following dates: June 18 through June 24.

6. No Requests. The Town Council shall not entertain any requests to fly other or additional flags.

7. New Flagpoles. Recognizing that at the time of adoption of this policy, the only Town property with multiple flagpoles is the Americal Civic Center, the Town Council shall review and update Section 5 of this policy if additional flagpoles are installed elsewhere on Town property.

8. Prior Policies Rescinded. All previous policies regarding Town flags and flagpoles are hereby rescinded.

*Douglas Lyons*  
*Superintendent of Schools*

*Kara Mauro*  
*Assistant Superintendent of Schools*

November 27, 2023

Wakefield Town Council  
1 Lafayette Street  
Wakefield, MA 01880

Re: Request for Approval of Proprietary Items for the New Wakefield Memorial High School

Dear Members of the Wakefield Town Council:

Procurement laws in Massachusetts require that material specifications for publicly bid construction projects be written to promote competition. For every item specified, the specifications must name at least three brands or provide a description that can be met by at least three vendors or manufacturers. Alternatively, the specifications may detail the performance of a material such that it can be met by at least three manufacturers.

However, if there are “sound reasons in the public interest” to restrict competition to one product or manufacturer. The determination to carry a proprietary item must be authorized by the Awarding Authority after a reasonable investigation, documented in writing and in the public records of the Awarding Authority and made available promptly upon request. Justification for the proprietary item must be included, the specifications must notify the bidders that a proprietary product is required, and the specification must include an ‘or equal’ clause.

The District has identified nine (9) products which it desires to list as proprietary items in the bid documents. Listed below are the products along with justification for each.

To comply with the Massachusetts procurement requirements, which govern the design and construction of the Wakefield Memorial High School, the school department respectfully requests that the following products be authorized as proprietary:

1. Building Security category - The public interest is best served when the components of building security are fully compatible with each other and consistent across multiple schools. Incompatibility between systems or complications from having multiple manufacturers could lead to a breakdown in their usefulness when they are most needed, such as in a “live” event. Also, specifying a single manufacturer or vendor allows the District to efficiently manage operation, maintenance, repairs, and personnel training. The District plans to roll out the below systems across all Wakefield public schools for a unified approach to building security.

- a. Security Camera System: Genetec Omnicast  
This system will manage security video across multiple schools, including the Wakefield Memorial High School. The system allows live and recorded videos to be viewed and controlled by authorized users who are trained in its use, including Wakefield's public safety personnel.
  - b. Access Control System: Genetec Synergis  
This system will manage security card access across multiple schools, including the Wakefield Memorial High School. The system allows for unification of multiple access control devices, flexibility in choosing security hardware, enhanced cybersecurity, and a single-card approach to access across multiple locations.
  - c. Card Readers: HID Signo Readers  
These card readers are the most current technology available in the market and are fully compatible with the Genetec Synergis access control system.
  - d. Card Reader Interface Module: Mercury Security MR52 Interface Module  
These modules connect to the Genetec Synergis access control system. Each MR52 dual-reader interface module connects to two card readers.
  - e. Card Reader Controller: HID Mercury Security LP1502 Intelligent Controller  
These controllers support up to 64 card readers each and connect to the main security panel. They integrate with Genetec Synergis Cloud Link over IP.
  - f. Alarm Control Panel: Digital Monitoring Products XR550 Control Panel  
These control panels integrate with the Genetec security systems so that both the District and Wakefield public safety personnel can access the security status, notifications, and alarms using a single computer-based or phone-based application. This simplified monitoring capability will allow for rapid response to incidents.
2. Horizontal Sliding Accordion Folding Fire Barrier: Won-Door FireGuard system  
Stair C2 is the primary vertical circulation connecting all three floors of the school. It is open to the hallway as opposed to being enclosed as the typical egress stairs along the edges of the building are. This openness is what allows it to integrate with the day-to-day activity of the school and to connect the three levels of the academic core in a more direct way than the perimeter stairs do. However, Stair C2 is also a code-required egress stair and per the fire separation requirements of Construction Type IB that the building falls under, any egress stair that connects more than two floors must have a 2-hour rated fire separation between either Levels 1 & 2 or 2 & 3. To maintain the open and welcoming aspect of the stair through all levels, the design is calling to use two FireGuard doors at Level 3. FireGuard is a 2-hour fire rated folding door that is typically pocketed into the wall and mostly hidden from view. When the fire alarm is activated, the door will unfold and create a 2-hour rated enclosure around the stair, separating it from the rest of Level 3. There are operable hinged doors within the folding partition that allow for egress through the stair. The FireGuard door has been reviewed with the Wakefield Fire Department and they have indicated that they are amenable to the use of the product.
3. Insulated Glazing Units with Integral Solar Control Grids: OKALUX OKAWOOD Insulated Glass with Wooden Grid  
After extensive study with the project's daylighting consultant and a design review with the Exterior and Interior Design Focus Group, it was agreed that Okawood, a triple-glazed IGU with an integral wood grid angled to provide optimal glare and solar heat gain control, was the ideal product for the Media Center. Beyond the beauty of the product, it meets all the requirements that WMHS and the design team are aiming to achieve:

- minimal maintenance: as opposed to an exterior sun control device it will not weather or require regular cleaning, and compared to an interior screen it will not accumulate dust, easy install:
  - the product is installed within the curtainwall framing the same as any IGU would be, cutting down on additional details and costs, and
  - energy compliant: the IGU meets the stringent energy code requirements of the MA Stretch Code
4. Door Hardware: Everest 29 SL Cylinders by Schlage  
The Town of Wakefield requires the use of Everest cylinders from Schlage to achieve continuity with current keying systems and anticipated keying systems throughout their schools and municipal buildings. Wakefield seeks to maintain an efficient, comprehensive keying strategy to support best maintenance and building safety practices.

The Permanent Building Committee recommends that approval of the above-listed systems as proprietary is in the best interest of Wakefield Public Schools and the Town of Wakefield. Therefore, we request that the Town Council vote to approve these systems as proprietary at your next scheduled meeting on November 27, 2023, and make record of the vote so that the Designers can incorporate the required language into the specifications that are currently being developed.

Thank you for your consideration.

Sincerely,

Douglas Lyons  
Superintendent of Wakefield Public Schools

Attachments

**Exhibit 1a) Security Camera System:  
Genetec Omnicast**

# Work smarter with video

Omnicast video management system

Request a demo

## Think differently about video monitoring

Does it feel like your aging CCTV or video management system (VMS) is holding you back? Adding new cameras, streaming higher-resolution video and expanding to new sites puts a strain on IT infrastructure. Emerging cybersecurity threats and growing privacy requirements also make your legacy system a dangerous liability.

Omnicast™ is an IP-based VMS that lets you work smarter with video. With a clear picture of events, you respond quicker and make informed decisions. Its flexible architecture and efficient streaming reduces storage and lightens network load. And, it easily scales up, uses the latest cameras and analytics, and

unlocks operational insights. Omnicast is part of our Genetec™ Security Center platform, making it easy to unify video with access control, intrusion, comms and more.

TRAINS AND TRANSIT







ale Club

# Edmonton Transit Service

The flexibility and stability of the Omnicast VMS allows ETS to address their current video requirements, while also staying open to integrating new technologies as future security needs arise.

[Read more](#)



GOVERNMENT

Brisbane City Hall



SPORTS AND ENTERTAINMENT

Chicago Cubs



AIRPORTS

Montréal-Trudeau Airport



# A versatile IP video monitoring system

No need to compromise on your vision for security

[Compare editions](#)

VIDEO SURVEILLANCE THAT MAKES SENSE

# See and understand your environment like never before

With Omnicast, you seamlessly control all video operations and rapidly respond to emerging situations with a single, modular platform. The intuitive user interface provides access to rich information while minimizing complexity for the operator.



## Respond to incidents faster

Bring your video surveillance to life with dynamic maps and custom dashboards. Your team will know not only what, but where things are happening at all times.

[See it in action](#)

## Securely manage evidence

Collect and share video evidence while protecting its integrity. An end-to-end chain of custody keeps things in check.

[Explore evidence management features](#)

## Protect footage and personal information

Prevent unauthorized video exports and data breaches by adding multiple layers of protection to your VMS.

[Learn about our defense in depth approach](#)

## Make your VMS work for you

Rely on insights and smart data to respond faster to what matters and automate everything else.

[Browse our video analytics portfolio](#)

Centralize your operations

Monitor all your sites from a single location with Security Center Federation™. Enhance cooperation between teams and lower your security costs.

[See how Federation works](#)

See it all

Unify video with other core security systems such as access control, automatic license plate recognition (ALPR), intrusion monitoring, and communications.

[Discover Security Center](#)

## Why Omnicast?



### A gradual path to the cloud

Omnicast offers hybrid recording, seamlessly combining on-premise and cloud storage. Federate Stratocast-connected cameras, our [cloud-based VMS](#) to monitor remote locations.



### Built on a unified platform

Unify the rest of your security systems with video surveillance and achieve a global view of security. Tap into our [unified security portfolio](#), or go beyond with our expansive ecosystem.



### Fits with any hardware

You benefit from a constantly evolving ecosystem of technologies. Choose from thousands of sensors, devices, and indoor, outdoor, or body-worn cameras to address your needs.

[Browse our supported devices](#)



### Uninterrupted access

Never lose access to live and recorded video with 99.9% archiver uptime. No matter what happens, Omnicast has your back, and your video. It safeguards your data and maintains a full chain of custody.



## Voice over IP communication

Unify SIP devices and associate your calls with live and recorded video

[Learn more](#)



Intrusion monitoring



Real-time localization services



Drone monitoring



Public safety

Healthcare

Education

Corporate

Venues

## Speed up response times during public emergencies

Reacting to emergencies is one part of the solution. Omnicast allows you to connect video with other data and be proactive in your operations. It helps law enforcement deter crime, improve public safety, and better manage traffic. Your staff gains instant access to relevant information in the operations center, in-

vehicle terminals, and right at their fingertips. This improves collaboration and helps them take more informed decisions.

[Learn more about our solutions for public safety](#)



[Request a demo](#)

[Browse Omnicast resources](#)

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**Exhibit 1b) Access Control System:  
Genetec Synergis**



# Think outside the door

Synergis access control system

[Access control migration checklist](#)

[Request a demo](#)

# Is your access control slowing you down?

Aging physical security systems are not just costly to maintain, but they also weaken your security. Lack of modern capabilities or access to newer door control technology, and emerging cybersecurity vulnerabilities put you at a clear disadvantage.

Synergis™ IP access control offers a modern approach. As a truly open system, it connects to a large and growing selection of third-party access control devices. Seamlessly unified with video and other security systems, it delivers operational and security insights about your secured areas leading to more informed decisions and improved operations.

## RETAIL



### Dick's Sporting Goods

“The Genetec system offered us capabilities which could speed up our investigations. Moving to IP with Security Center has been hugely beneficial to our organization.”

**Jacob Gillette**  
Director of Loss Prevention and Operations, DICK's Sporting Goods

[Learn more](#)



INSTITUTIONS  
at Indonesia



SEAPORTS  
Manchester Terminal



Sykes



EDUCATION  
University of Calgary





# An access control solution built for today's challenges

Do more with your system

[Discover how](#)

OPEN ARCHITECTURE ACCESS CONTROL SYSTEM

## Secure access and optimize operations

Synergis provides a modern and innovative access control solution that addresses your business needs. It expands your reach with security and visibility to areas never thought possible. Using a unified approach, Synergis empowers operators with timely and holistic information to act as needed. It also provides a clear and easy path to migration, from an outdated system to a modern and innovative one.

Break free from proprietary systems

Choose the hardware to address your security needs and objectives. With an expanding list of integrated devices, Synergis ensures you avoid the long-term setbacks of closed solutions.

[Explore all your options](#)

More than door management

Security doesn't stop at the door, nor should your access control. Synergis provides solutions to keep your people and assets safe, in your facilities, at the perimeter, and in your enclosures.

[Discover all the possibilities](#)

Protect what's protecting you

Secure your system from end to end. Advanced encryption and claims-based authentication provide secure communications to protect cardholders' identities and the system's integrity.

[Learn about the risks of legacy access control systems](#)

Improve your operations with valuable insights

Make better decisions to strengthen your security and improve operations. Synergis provides key sightings from data in a clear, concise, and unified manner.

[Explore our dashboards](#)

Make the switch with confidence

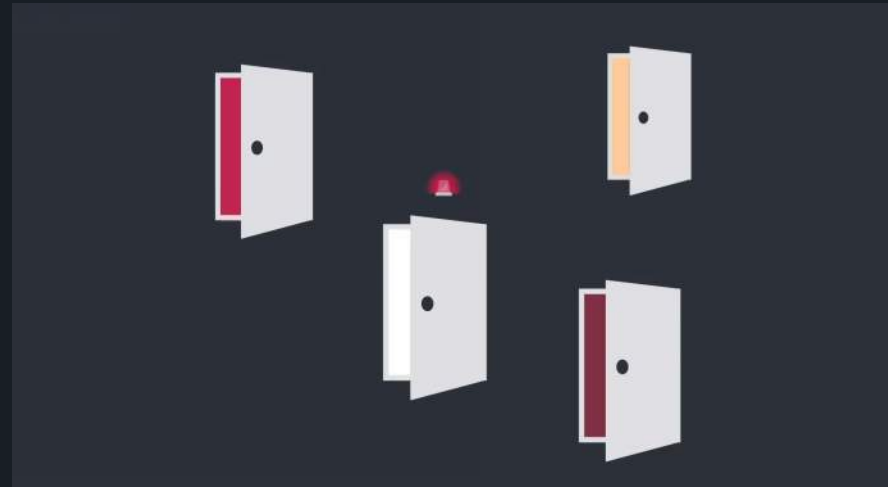
Replacing aging systems can seem like a daunting task. We've simplified the process by automating database migrations and reducing the cost and time needed to migrate.

[Discover our migration solutions](#)

Unify your security environment

Through Security Center, you will unify access control with other core security systems such as video surveillance, license plate recognition, intrusion monitoring, and Sip-based communication to name a few.

[Discover Security Center](#)



# Why Synergis?



## Enterprise-grade

Benefit from a solution that scales with your organization. With Synergis, you can manage access for facilities across the globe efficiently to ensure the seamless flow of people.



## A trusted solution

Join a long list of world-wide organizations, both large and small, that have entrusted us with their security and operational needs.



## Cloud-ready



## Truly unified

Confidently move part or all of your access control to the cloud at your own pace with our hybrid and secure architecture.

Unify access control with the rest of your security system and achieve operational efficiencies and a holistic view of your environment.

## HARDWARE



## Axis Powered by Genetec

### The combined power of all-in-one hardware and software

Axis Powered by Genetec is an enterprise-level access control offering that combines Genetec access control software with the AXIS A1210 and A1610 network door controllers in a single easy-to-deploy all-in-one offering. The hardware comes pre-loaded with our leading-edge, innovative access control software, reducing the friction of hardware and software integration and allowing for fast and continuous access to innovation and cybersecurity advancements.

[Discover Axis Powered by Genetec](#)



## Synergis Cloud Link

### A smart and secure access control IoT gateway

From small to large multi-site installations, Synergis Cloud Link helps solidify your security. You can use your existing hardware, wiring, and infrastructure while taking



advantage of a full range of embedded functionalities. It also replaces onsite servers, reduces costs, and resources needed to maintain them, and gives you a quick and secure path to the Cloud.

[Discover our Synergis Cloud Link](#)



## Cloud Link Roadrunner

### IoT device for enclosure management

An industry first, the Cloud Link Roadrunner is a cyber secure IoT device purposely built for enclosure management. It can withstand the rigors of daily use and extreme environments, such as very high or low temperatures and changes in weather conditions. It is designed with a focus on cybersecurity, management, and physical security, allowing traffic managers to confidently deploy capable and expandable access control capabilities across their enclosures.

[Discover our Cloud Link Roadrunner](#)



## Intelligent controllers

### Choose from a range of IP-based controllers

Synergis helps you move away from proprietary solutions by offering a range of controllers to choose from. By partnering with the security industry's leading access control equipment manufacturers, you can deploy a mix of non-proprietary controllers, like the Mercury LP and EP controllers, and the AXIS A1601 controller.

[Download the datasheets](#)



## Electronic locks

### Extend your reach with electronic locks

Deploy a variety of wireless, WiFi, and PoE electronic locks without running expensive cabling through each door. Connect your locks to your wireless or wired network and easily enroll them within your ACS system. All access rights and scheduling are managed through the Synergis system, unifying IP locks with the rest of your access control infrastructure.

[Download the datasheets](#)

## Related solutions





### Smarter physical access management

[Learn more](#)



### Intrusion management

[Learn more](#)



### Elevator destination dispatch

[Learn more](#)

SENSE

## Get full visibility of your security environment

Unification has the power to enhance your operations. Access control is only part of a much bigger solution. As a fundamental part of Security Center, Synergis provides the foundation to unify your security and operations into one single platform. This gives you a more efficient way to manage and grow your business over time.

[Learn more](#)



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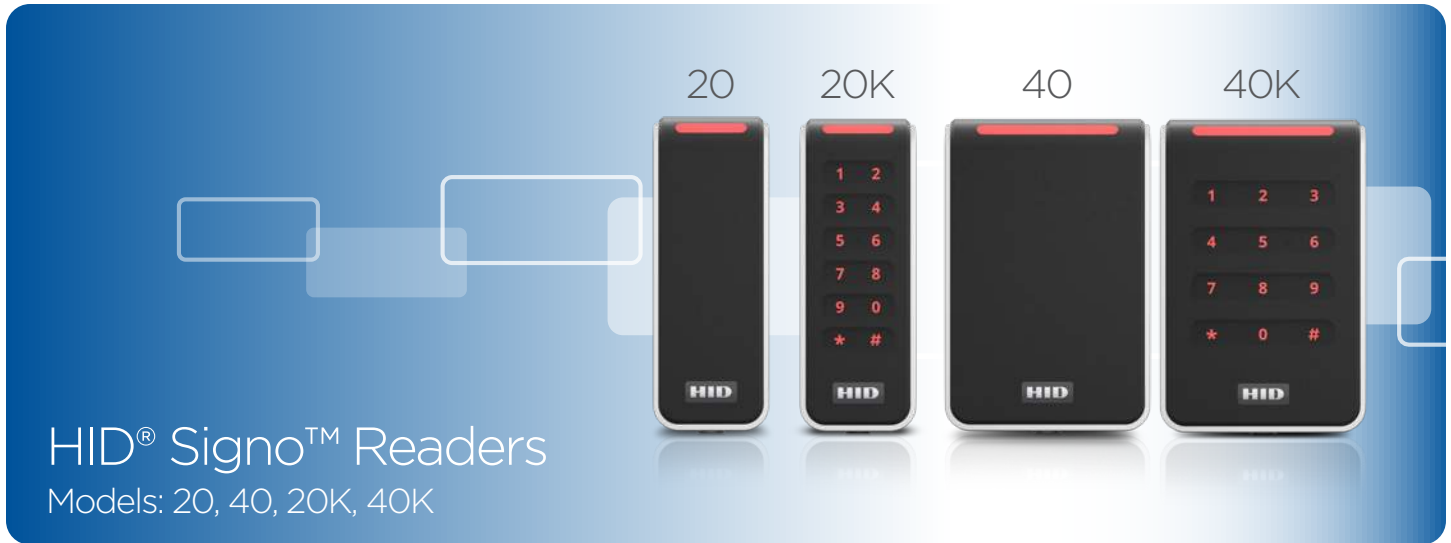
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Exhibit 1c) Card Readers:  
HID Signo Readers



HID® Signo™ Readers  
Models: 20, 40, 20K, 40K

**READY FOR THE FUTURE NOW**

- Mobile-ready by default, including Apple's Enhanced Contactless Polling (ECP) to support credentials in Apple Wallet
- Sleek, innovative design to suit modern architecture
- Integrated OSDP for secure authentication and configuration post installation
- Built on a hardware platform designed to be adaptable to support future technology
- Designed to seamlessly integrate into the HID Origo® ecosystem

**THE SIGNATURE LINE OF READERS FROM HID GLOBAL**

- **Highly Versatile** — Support for the widest range of credential technologies, including HID Mobile Access® via native Bluetooth and Near Field Communication (NFC).
- **Unparalleled Performance** — Ultra secure storage of cryptographic keys on certified secure element hardware, plus a new surface detection feature that enables the reader to automatically recalibrate and optimize read range performance.
- **Connected to the Future** — All readers include out-of-the-box support for Open Supervised Device Protocol (OSDP) for secure bidirectional communication.

HID Signo™ is the signature line of physical access control readers from HID Global. The versatility, performance and connected capabilities of HID Signo readers set a new industry benchmark for the most highly adaptable, interoperable and secure approach to electronic access control.

Offering an unparalleled breadth of functionality, HID Signo affords security system installers and administrators a simple and effective approach to secure access control for almost any scenario.

With support for the widest array of credential technologies — past, present and future — HID Signo is the perfect choice for those looking to make the transition to a secure authentication technology.

HID Signo readers transcend the traditional approach to security by being designed to be connected and managed remotely without needing to physically touch each device. This functionality empowers access control systems to dynamically respond as new needs, configurations or threats arise.

**POWERFULLY SECURE**

- Multi-Layered security to ensure data authenticity and privacy
- EAL5+ Certified Secure Element Hardware
- Native OSDP secure channel capability
- Trusted secure authentication using the SIO data model
- Supports iCLASS Elite™ and Corporate 1000 Programs

**MEET EVERY NEED, ADAPT TO ANY SITUATION**

- Go mobile with native Bluetooth and NFC support
- Integrated 125 kHz credential read support for easy migration
- Supports over 15 common credential technologies
- Flush mount terminal block and pigtail wiring options
- Robust outdoor performance with an IP65 rating

**MANAGE, UPGRADE AND CONFIGURE**

- Easily and securely managed using HID Reader Manager®
- Configure via a mobile device or OSDP
- Update firmware in response to threats
- Personalize by configuring audio visual or keypad settings
- Deactivate legacy credential technology to conclude secure migration

## SPECIFICATIONS

| HID Signo Reader Model                              | 20   | 20K   | 40  | 40K   |
|---|--|---|---|---|
| <b>2.4 GHz (Bluetooth) Credential Compatibility</b> | Mobile Credentials powered by Seos® (HID Mobile Access)  |   |   |   |
| <b>13.56 MHz (NFC) Credential Compatibility</b>     | Seos, iCLASS SE®, iCLASS SR®, iCLASS®, MIFARE Classic, MIFARE DESFire EV1/EV2, FeliCa™ & Contactless e-Purse Application Specification (CEPAS), Mobile Credentials powered by Seos (HID Mobile Access)   |   |   |   |
| <b>125 kHz Credential Compatibility</b>             | HID Proximity®, Indala® Proximity, AWID Proximity, and EM Proximity  |   |   |   |
| <b>Typical Read Range¹</b>                          | Seos®, MIFARE Classic, MIFARE DESFire EV1/EV2 & ISO14443A Single Technology Cards - 1.6 to 4 in (4 to 10 cm)<br>HID / AWID Proximity®, Indala Proximity®, EM Proximity & 125 kHz Single Technology Cards - 2.4 to 4 in (6 to 10 cm)  |   |   |   |
| <b>Mounting</b>                                     | Suited for mullion-mount door installations or any flat surface mounting   |   | Suited to mount and cover single gang switch boxes with a slotted mounting plate for alternate back-box spacing |   |
| <b>Color</b>  | Black bezel with silver trim baseplate ²   |   |   |   |
| <b>Keypad</b>                                       | No   | Yes (2 x 6 layout)  | No  | Yes (3 x 4 layout)  |
| <b>Dimensions (width x length x depth)</b>          | 1.77 in x 4.78 in x 0.77 in<br>(45 mm x 121.5 mm x 19.5 mm)  | 1.78 in x 4.79 in x 0.85 in<br>(45 mm x 121.5 mm x 21.5 mm)   | 3.15 in x 4.78 in x 0.77 in<br>(80 mm x 121.5 mm x 19.5 mm)   | 3.16 in x 4.79 in x 0.85 in<br>(80 mm x 121.5 mm x 21.5 mm)   |
| <b>Product Weight</b>                               | Pigtail: 3.35 oz (95 g)<br>Terminal: 2.65 oz (75 g)  | Pigtail: 3.88 oz (110 g)<br>Terminal: 3.17 oz (90 g)          | Pigtail: 4.94 oz (140 g)<br>Terminal: 4.23 oz (120 g)   | Pigtail: 5.64 oz (160 g)<br>Terminal: 4.94 oz (140 g)         |
| <b>Operating Voltage</b>                            | 12V DC   |   |   |   |
| <b>Current Draw³</b>                                | NSC⁴: 60 mA<br>Peak: 250 mA<br>Max. Avg: 70 mA<br>IPM⁵: 45 mA  | NSC⁴: 65 mA<br>Peak: 250 mA<br>Max. Avg: 75 mA<br>IPM⁵: 48 mA | NSC⁴: 65 mA<br>Peak: 250 mA<br>Max. Avg: 75 mA<br>IPM⁵: 45 mA   | NSC⁴: 70 mA<br>Peak: 250 mA<br>Max. Avg: 80 mA<br>IPM⁵: 55 mA |
| <b>Device Input and Output</b>                      | Input: Tri-color LED, Buzzer, Hold @ Active Low<br>Output: Tamper Relay 0-60V DC @ 100mA Max (Dry Contact)   |   |   |   |
| <b>Operating Temperature &amp; Humidity</b>         | -31° F to +150° F (-35° C to +66° C)<br>0% to 95% non-condensing   |   |   |   |
| <b>Storage Temperature</b>                          | -40° F to +185° F (-40° C to +85° C)   |   |   |   |
| <b>Environmental Rating</b>                         | UL294 Outdoor and Indoor rated, IP65   |   |   |   |
| <b>Transmit Frequency</b>                           | 125 kHz, 13.56 MHz, and 2.4 GHz  |   |   |   |
| <b>Communications &amp; Panel Connection</b>        | Wiegand, Clock-and-Data and RS-485 Half Duplex (OSDP) via Pigtail (18 in / 0.5 m) or Terminal Strip  |   |   |   |
| <b>Device Management</b>                            | HID Reader Manager / OSDP configuration  |   |   |   |
| <b>Certifications</b>                               | UL294/cUL (US), FCC (US), IC (Canada), CE (EU), RCM (Australia, New Zealand), SRRC (China), KCC (Korea), NCC (Taiwan), iDA (Singapore), RoHS, MIC (Japan), GreenCircle, Bluetooth SIG, and additional regions.<br><a href="http://www.hidglobal.com/certifications">www.hidglobal.com/certifications</a> |   |   |   |
| <b>Security Ratings</b>                             | EAL 5+ Certified Secure Element Hardware   |   |   |   |
| <b>Patents</b>                                      | <a href="http://www.hidglobal.com/patents">www.hidglobal.com/patents</a>   |   |   |   |
| <b>Housing Materials</b>                            | Polycarbonate - UL94 V0  |   |   |   |
| <b>UL Reference Number</b>                          | 20   | 20K   | 40  | 40K   |
| <b>Warranty</b>                                     | Limited Lifetime   |   |   |   |



[hidglobal.com](http://hidglobal.com)

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An ASSA ABLOY Group brand

- 1 Read range listed is statistical mean rounded to nearest centimeter increment for ID-1 or clamshell credentials. HID Global testing occurs in open air. Form factor, technology and environmental conditions, including metallic mounting surface, can degrade read range performance; plastic spacers are recommended to improve performance on metallic mounting surfaces.
- 2 Black trim baseplate & reader spacers available as an additional accessory at an additional cost.
- 3 Measured in accordance with UL294 standards; see Installation Guide for details.
- 4 NSC - Normal Standby Current; see Installation Guide for details.
- 5 Intelligent Power Management (IPM) - Reduces reader current consumption up to 43%, based on model, compared to standard operating mode.

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2020-09-21-pacs-signo-reader-family-ds-en PLT-04831



**ASSA ABLOY**

Exhibit 1d) Card Reader Interface  
Module:  
Mercury Security MR52 Interface Module

# Mercury Security MR52 Interface Module

Reader and IO interface module for up to 2 doors

## Seamlessly integrated with the Genetec Synergis IP Access Control Solution

The Synergis™ system supports Mercury Security's open field hardware enabling organizations to deploy industry-standard access control modules and protect their investments for years to come. The MR52 dual-reader interface module connects up to two readers, controlling either one or two doors. Supporting a range of wired and wireless reader technology, the MR52 is managed by a Mercury Security EP1501, EP1502, EP2500 and EP4502 controller through a high-speed RS-485 network and ultimately, the Synergis Cloud Link appliance over IP.



Mercury Security MR52 Interface Module

## Synergis Cloud Link

The Synergis Cloud Link appliance is an intelligent and PoE-enabled micro-server that supports a mix of non-proprietary access control modules like the Mercury Security MR52 Interface Module. Modernize your access control environment by deploying Synergis Cloud Link over your network and establish real-time connectivity to your doors.

## Overview

Connects to the Synergis Cloud Link appliance and Mercury Security controllers over high-speed RS-485 network.

Reports all activity in real-time to Synergis Cloud Link and Mercury Security controllers

Manages up to 2 readers or 2 doors

Reports Supervised Inputs

Some inputs can be configured as general purpose inputs

UL 294 recognized components

OSDP v1 and v2 supported

## Available Interfaces

### Readers:

2 reader ports

### Inputs:

8 general purpose: programmable circuit type  
2 Dedicated for tamper and Power Monitor

### Outputs:

6 relays: Form C, 5Amp 28 Vdc

Choose the Synergis IP access control solution to protect your people and assets with your choice of widely-deployed, non-proprietary, and secure access control hardware.

## Hardware specifications

|                              |   |                       |   |
|------------------------------|---|-----------------------|---|
| <b>Dimensions</b>            | 6.0 in × 8.0 in × 1.0 in<br>(152 mm × 203 mm × 25 mm) | <b>Certifications</b> | UL 294 Recognized, CE Compliant,<br>ROHS, EN-60839-11-1                         |
| <b>Operating Temperature</b> | 0-70°C operational,<br>-55-85°C storage               | <b>Warranty</b>       | 24-month warranty. Please refer to<br>Genetec Sales Policy for more information |
| <b>Communications Ports</b>  | RS-485, 2-wire, 4,000'                                |                       |   |

## Architecture

Connected to the any Mercury Intelligent Controller over RS-485 and ultimately the Synergis Cloud Link appliance over IP, the Mercury MR52 Reader Module processes real-time commands and reports all activities upstream.

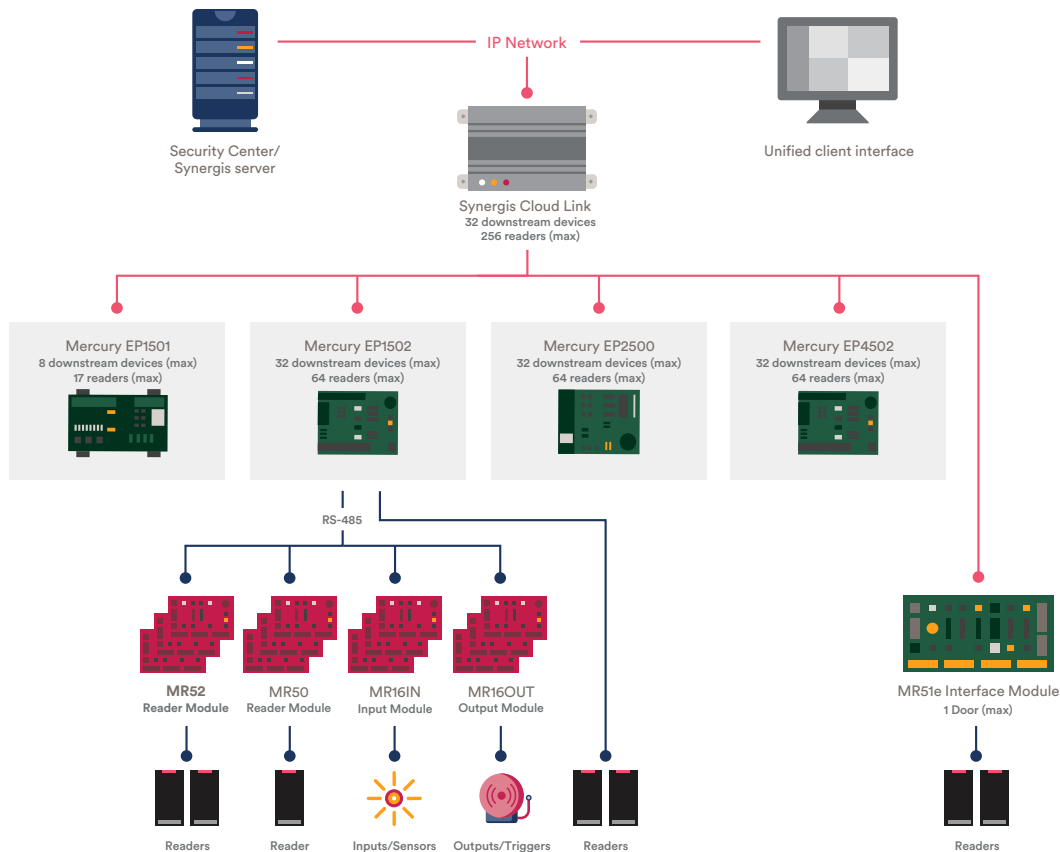




Exhibit 1e) Card Reader Controller:  
HID Mercury Security LP1502 Intelligent  
Controller

# HID Mercury Security LP1502

Intelligent controller (4 Readers, 8 Inputs, 4 Outputs)

## Seamlessly integrated with Genetec Security Center Synergis

Security Center Synergis™ supports HID Mercury Security's open field hardware enabling organizations to deploy industry-standard access control modules and protect their investments for years to come. The LP1502 controller has direct hardware support for two doors and can scale up to 64 readers. Supporting a range of wired and wireless technology, the LP1502 is managed by the Synergis Cloud Link gateway appliance over IP.



HID Mercury Security LP1502 Intelligent Controller



## Overview

Connects to the Synergis Cloud Link over IP

Reports all activity in real-time to Synergis Cloud Link

Manages up to 2 doors

Manages 8 general-purpose input monitor points and 4 control relays

Reports supervised inputs

UL 294 recognized components

OSDP v1 and v2 supported

## Available interfaces

Reader: 2 reader ports, up to 2 readers (entry and exit) each when connected to OSDP readers.

Inputs: 8 general purpose (programmable circuit type)

Outputs: 4 relays: Form C, NO 5 Amp 30 Vdc, NC 3 Amp 30 Vdc

## Synergis Cloud Link

The Synergis Cloud Link appliance is an intelligent and PoE-enabled IoT gateway that supports a mix of non-proprietary access control modules like the HID Mercury Security LP1502 Intelligent Controller IP.

## Hardware specifications

|                             |   |                       |  |
|-----------------------------|---|-----------------------|--|
| <b>Dimensions</b>           | 8.0 in × 6.0 in × 1.0 in<br>(203 mm × 152 mm × 25 mm) | <b>Certifications</b> | UL 294 Recognized, CE Compliant, RoHS,                                       |
| <b>Temperature</b>          | 0 to +70°C operational,<br>-55 to +85°C storage       | <b>Warranty</b>       | 24-month warranty. Please refer to Genetec Sales Policy for more information |
| <b>Communications Ports</b> | Ethernet: 10Base T/100Base-TX                         |                       |  |

## Architecture

Connected to the Synergis Cloud Link appliance over IP, the HID Mercury Security LP1502 intelligent controller processes real-time commands and reports all activities upstream.

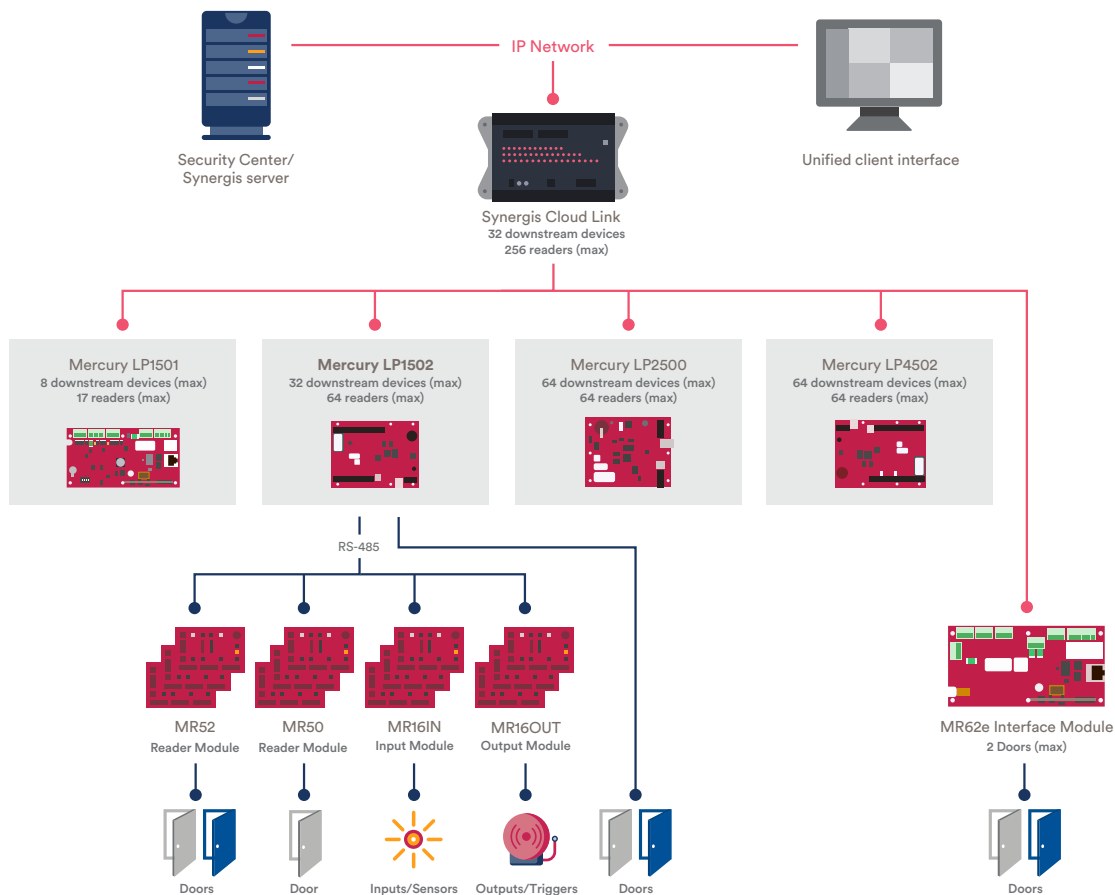


Exhibit 1f) Alarm Control Panel:  
Digital Monitoring Products XR550  
Control Panel



# XR550 Control Panel



## FEATURES

- ▶ Onboard dialer
- ▶ Onboard 10/100 network communication
- ▶ Plug-in cellular communicators allow for Virtual Keypad™ and monitoring center connection
- ▶ Flash updatable — locally or remotely over cell or network
- ▶ Adaptive Technology™ — cost-effective supervised cellular backup
- ▶ Up to 500 1100 Series™ wireless or wired LX Bus™ zones
- ▶ Up to 99 schedules for areas, doors, outputs, Z-Wave® Favorites and profiles

- ▶ Select Area, All/Perimeter or Home/Sleep/Away operation
- ▶ 32-individual reporting areas with common areas
- ▶ Up to 96 supervised door access points and/or keypads
- ▶ Up to 16 supervised keypads, seven of which can be wireless
- ▶ 32-character names available for user, zone, area, profiles and group names
- ▶ Up to four profiles per user
- ▶ Fully supervised network, cellular and Wi-Fi communication
- ▶ Communications Diagnostics check network and cellular communication status from the keypad
- ▶ Eight communication paths between the panel and monitoring center
- ▶ Flexible system arming features with Instant Arming option
- ▶ Lockdown operation from keypad or mobile app
- ▶ Up to 562 two-wire smoke detector or fire-initiating zones
- ▶ 10,000 user codes with 99 profiles and temporary codes
- ▶ 506 outputs
- ▶ 12,000 event buffer
- ▶ Built-in phone line monitor
- ▶ French, Spanish and English menus available
- ▶ Custom Actions
- ▶ 1.5 Amp 12 VDC smoke and auxiliary output with OVC protection
- ▶ EASYconnect™ connection for Virtual Keypad™ when used with a network connection

### XR550 Bank Features

- ▶ UL Bank, Safe and Vault
- ▶ Card Plus Pin
- ▶ User inactivity audit
- ▶ Dual Authority
- ▶ Panic Button Test
- ▶ Early Morning Ambush

### XR550E Encryption Features

- ▶ 128- or 256-bit AES encryption
- ▶ NIST Certified
- ▶ Meets ICPG 705
- ▶ IPV6 Support



## FLEXIBLE COMMUNICATION

The XR550 has transitioned from dialer-focused communications to a true network, cellular and Wi-Fi communications approach by providing stronger, multi-layered panel communications that ensure a constant link between the panel and monitoring center.

The unique DMP Serial 3 format supports 32-character user, zone and area names to decrease the monitoring center response time and limit dependence on automation literal tables for message interpretation. Contact ID dialer format is also supported.

## NETWORK OR CELLULAR COMMUNICATION

Built-in 10/100 auto-sensing Ethernet connection enhances both standard and encrypted line security options. Both UDP and TCP are supported. The network option can be used as the primary or backup path to the digital dialer or cellular option.

The 263 Series cellular communicators can be used as the primary path, providing installation flexibility where no landlines are available. They can be used as a stand-alone communicator without the need for a backup. When used as the backup path, the 263 Series™ communicators provide the security of a communication link that continues to function, even when landlines are cut or compromised. This interface works over a variety of carriers in the USA and Canada.

## ADAPTIVE TECHNOLOGY

If a current primary communication path becomes unavailable, Adaptive Technology directs the panel to make a seamless transition from one communication path to another, ensuring that no check-in or supervision messages are missed. This allows a system to be fully supervised when the primary communication path is unavailable, while minimizing expensive cell traffic when all paths are good. The panel is constantly checking the failed path to enable the panel to revert back to the primary path when communication is restored.

## EASYconnect TECHNOLOGY

EASYconnect enables the control panel to establish an outbound connection to SecureCom Wireless™ over the network. This allows for an effortless installation of network panels, without any customer router programming, providing extremely quick app connection times.

## ZONE AUDIT DAYS

This is a valuable auditing tool to determine whether a zone or device has not been tripped within a certain number of days. Whether the system is armed or disarmed, up to 365 days can elapse without the zone being tripped. Each time the zone is tripped, the counter restarts. After the countdown expires, a fault message is sent and the timer begins the countdown again as per the programmed days.

## USER INACTIVITY

The Zone Activity Hours provides notification of user codes or credentials not used over a programmable period of time; for example, employees or service providers who haven't used their PIN code or access credentials during a defined period of time. This notification promotes the purging of user and access rights as a result of employee termination or service provider changes. This option is found in System Options Programming.

## EIGHT COMMUNICATIONS PATHS

Create, configure and manage up to eight communication paths between the panel and monitoring center. Each path has its own panel communication programming parameters and can be identified as either primary or backup. This enables installers to configure a reliable communication link, offering greater confidence that the panel will always be connected to the monitoring center.

## COMMUNICATION FUNCTION DIAGNOSTICS

The enhanced diagnostic menu enables technicians to check network and cellular communication status and cell signal strength from the keypad.

## MOBILE PLATFORMS

DMP mobile platforms provide you with the tools you need to build strong connections with your customers. The Virtual Keypad app puts a keypad on users' smartphone and other Android and iOS devices.

## ACCESS CONTROL BURGLARY INTEGRATION

The XR550 is an integrated burglary, fire and access control system that can be configured for users to gain access and disarm the area using a single card read.

## FALSE ALARM FEATURES

Providing a way to reduce false alarms, both Cancel/Verify™ and the False Alarm Question prompt users to validate whether an alarm has occurred after entering their codes. In a Home/Sleep/Away or All/Perimeter system, the user can either press Cancel/Verify or Yes/No to confirm alarm status and send it to the monitoring center.

## DMP WIRELESS

DMP 1100 Series wireless communication employs 900 MHz frequency-hopping spread-spectrum to ensure clear and accurate signal transmissions without interference in practically any environment. Receivers are alerted of transmitters that go missing with two-way communication. Each wireless transmitter communicates with the receiver using supervision messages.

## WIRELESS ONE-BUTTON KEYFOB WITH PROX

The 1144-P is a portable panic button fob, programmable to function in multiple locations with alerts for lost fobs, late to test and low battery power.

## WIRELESS ENCRYPTION

DMP's 1100 Series E models are for customers who want to add the hardest layer of security. In addition to 900 MHz frequency-hopping spread spectrum supervised communication, these models also offer full support for 128-bit AES (Advanced Encryption Standard) over the air. For added security, DMP 1100 Series encrypted devices also allow you to enter your own passphrase for unique key generation, providing full encryption end to end.

The encryption models are offered separately from existing 1100 Series devices. For the highest level of encryption, it is recommended that all devices on the system be E models, although each of the products are fully backward compatible with systems that do not support encryption, so they can be added to existing systems or operate as a stand-alone system.

## LOCKDOWN

For emergency situations, a Lockdown command can be issued from the keypad menu or via remote command to lock all doors designated as public.

## AREAS

Program up to 32 areas with a variety of options, including independent arming. Each area has a unique name and may have its own account number.

Common areas automatically arm when the last independent area is armed; likewise, they disarm when the first independent area is disarmed. This is ideal for lobbies or areas where users need common access to specific areas only.

## TEMPORARY CODES

Temporary codes are user codes that can be entered with a finite date and specific time to expire.

## ZONE EXPANSION

The XR550 provides up to 574 zones, programmable for burglary, fire and access applications.

- ▶ 10 Onboard Zones
- ▶ 16 Keypads = 64 Zones
- ▶ Five Built-in LX Bus (100 zones per LX)

## ONE-MAN WALK TEST

A special code is also available for installers to test the system. The One-Man Walk Test allows a single technician to check the panel response to burglary, fire, panic and supervisory zones.

## OUTPUTS

The XR550 provides up to 506 outputs that can be activated by zone or system events, by schedule, through the User Menu or when a card is presented. Output Groups allow multiple outputs to activate with a single event and/or can be assigned to a particular user profile.

## FLEXIBILITY IN SCHEDULES

Enhanced scheduling for areas, doors, outputs and holiday schedules offer flexibility for your customers. Ninety-nine programmable schedules are available and can be assigned to an area, door or output. The same schedule may be assigned to more than one area, door or output, making them reusable. A List key facilitates browsing through the list of stored names on the keypad.

- ▶ Up to 8 schedules per profile
- ▶ Up to 16 schedules per door
- ▶ Up to 8 schedules per area
- ▶ Up to 8 schedules per output
- ▶ Up to 40 holiday dates

## ENCRYPTION

The XR550 provides encrypted data transmission to the monitoring center and is ideal for secure environments where encrypted data is required. Using 128- or 256-bit AES ensures secure data transmission by using a unique alphanumeric passphrase.

## REAL-TIME STATUS ENHANCES THIRD-PARTY INTEGRATION

Alarm systems are increasingly being integrated with environmental control and home automation systems. With real-time status information from zones, doors and other outputs, XR550 Series™ panels are readily integrated with these third-party control and automation systems. See [DMP.com/Integration\\_Partners](http://DMP.com/Integration_Partners).

## Z-WAVE SUPPORT

Add up to 140 Z-Wave devices with the 738Zplus module for mobile control of lights, locks and thermostats. Up to 20 Favorites allow users to program multiple devices to respond to a single command or panel events like arming and disarming. Z-Wave devices can be controlled with the 7800/9800 Series™ Graphic Touchscreen Keypad and Virtual Keypad.

## CUSTOM ACTIONS

In addition to controlling lights, locks and thermostats, users can also take advantage of several customizable actions that can be programmed into the panel. Users can select a combined sequence of actions, all based on specific Favorites, lights and locks to activate or deactivate Z-Wave devices, Favorites or outputs during specific times and days or specific zone trips.

## 96 ACCESS CONTROL DOORS

Any access control reader with an OSDP or Wiegand output can be connected to the XR550 Series panel.

The XR550 system can restrict access by schedule, arming level or other criteria. The specific reason for access denial can be displayed on the keypad, stored in events, sent to the monitoring center and DMP Advanced Reporting. Anti-passback feature is also available.

## COMMERCIAL FIRE

The DMP XR550 is also approved for commercial fire applications. Integrate intrusion, access and fire into a single application or use the XR550FC as a stand-alone commercial fire alarm control panel. See LT-1317 for more information.

## SUPPORT FOR WIRELESS DOOR CONTROL

The 1134 Wireless Access Control Module allows customers to take advantage of the panel's access control capabilities in hard-to-wire locations, such as a gate or warehouse entrance. This eliminates the need for costly wire runs or trenching and provides the ease and flexibility to add access control in nearly any environment. In addition to Wiegand readers, 1134 modules support OSDP readers, making them among the most secure access control modules available. For customers who want to add an even hardened layer of security, all DMP's 1100 Series E models include DMP wireless devices and receivers offer full support of 128-bit encryption capabilities.

## PROGRAMMABLE EOL OPTIONS

You have the flexibility to change the EOL Value from 1k to 2.2k for panel zones 1 – 9. This is easily configured in System Options and allows you to use an XT panel to take over systems with 2.2k without having to pull contacts and change the EOL resistors. While saving you time, it also reduces the cost of takeovers.

## 1100T WIRELESS TRANSLATOR

The 1100T is the industry's only wireless translator listed and approved for life safety. Plus, it makes it easy to take over DSC, Interlogix, Honeywell 5800 and 2 GIG Series systems, all without replacing existing transmitters and sensors. To accommodate the maximum number of supported sensors on the XR550, one 1100T can learn in 99 zones. It communicates to a DMP panel using the panel's built-in wireless receiver. This eliminates wiring and allows you to place the translator anywhere regardless of where the control panel is. With this one device, you can upgrade customers systems' to DMP quality, with software management tools, as well as online and app convenience and functionality without increasing installation costs.



## COMPATIBILITY REFERENCE SHEET

**Keypads**

|       |                                |
|-------|--------------------------------|
| 630F  | LCD Remote Fire Command        |
| 7000  | Series Thinline Keypads        |
| 7000A | Series Aqualite Keypads        |
| 7463  | Network Thinline LCD Keypad    |
| 7800  | Graphic Touchscreen Keypads    |
| 9060  | Wireless Keypad                |
| 9063  | Wireless Keypad w/ Prox Reader |
| 9800  | Wireless Touchscreen Keypads   |

**Expansion Modules**

|        |   |
|--------|---|
| 708    | Bus Extender  |
| 710    | Bus Splitter/Repeater   |
| 711    | Single Zone Expansion   |
| 711S   | Zone Expansion Module   |
| 712-8  | Eight-Zone Expansion  |
| 714    | Four-Zone Class B Expansion                                       |
| 714-8  | Eight-Zone Class B Expansion                                      |
| 714-16 | 16-Zone Class B Expansion   |
| 715    | Four-Zone Two-Wire Smoke Expansion                                |
| 715-8  | Eight-Zone Two-Wire Smoke Expansion                               |
| 715-16 | 16-Zone Two-Wire Smoke Expansion                                  |
| 716    | Output Expansion, four Form C relays, four open collector Outputs |
| 736P   | Radionics Interface   |
| 738A   | Ademco Interface Module   |
| 738I   | ITI Interface Module  |

**Cellular Communicators**

|                |                              |
|----------------|------------------------------|
| 263EXT         | Cellular Extension Module    |
| 263LTE-V/381-2 | LTE Communicator for Verizon |
| 263LTE-A/381-2 | LTE Communicator for AT&T    |

**Auxiliary Modules**

|      |                                       |
|------|---------------------------------------|
| 860  | Relay Output Module                   |
| 865  | Style W/X Notification Circuit Module |
| 866  | Style W Notification Circuit Module   |
| 867  | LX-Bus Notification Circuit Module    |
| 869  | Style D Initiating Module             |
| 893A | Dual Phone Line Module                |

**Power Supplies**

|           |                  |
|-----------|------------------|
| 505-12/LX | 5 Amps at 12 VDC |
| 505-12L 5 | 5 Amps at 12 VDC |
| 505-12A 5 | 5 Amps at 12 VDC |

**Smoke/Heat Detectors**

|         |                         |
|---------|-------------------------|
| 2W-BLX  | Conventional Smoke      |
| 2WT-BLX | Conventional Smoke/Heat |

**Intrusion Devices**

Virtually any other standard intrusion detectors

**Access Control**

|          |  |
|----------|--|
| 352M-G   | Extra Large Enclosure with Mounting Plate                            |
| 352PM-G  | Extra Large Enclosure with Transformers and Mounting Plate           |
| 734      | Access Control Module  |
| 734N     | Network Access Control Module  |
| 734N-POE | Network Access Control Module  |
| 1134     | Wireless Access Control Module                                       |
| OP-08CB  | REX Motion Detector Proximity Readers and Credentials DMP ProxPatch™ |

**Monitoring Center Receivers**

|         |   |
|---------|---|
| SCS-1R  | Security Control Receiver   |
| SCS-10S | Single-Line DMP Serial 3 Receiver compatible with receivers that accept Standard CID, DD or DMP Serial 3 messaging (Virtual Receiver) |
| SCS-VR  | Software-only solution that runs on a server for network IP and cellular communications   |

**DMP Wireless**

|        |   |
|--------|---|
| 1100X  | Receiver  |
| 1100XH | High-Power Receiver                                   |
| 1100R  | Repeater  |
| 1100T  | Translator  |
| 1101   | Universal Transmitter, Internal and External Contacts |
| 1102   | Universal Transmitter, External Contact               |
| 1103   | Universal Transmitter, Internal and External Contact  |
| 1106   | Universal Transmitter, Internal and External Contact  |
| 1107   | Micro Window Transmitter                              |
| 1108   | Doorbell Module                                       |
| 1114   | Four-zone Expander                                    |
| 1115   | Temperature Sensor and Flood Detector                 |
| 1116   | Relay Output  |
| 1117   | LED Annunciator                                       |
| 1118   | Remote Indicator Light                                |
| 1119   | Door Sounder  |
| 1122   | PIR   |
| 1126R  | 360 Ceiling Mount PIR                                 |
| 1127C  | Wall Mount Curtain PIR                                |
| 1127W  | Wall Mount Wide Angle PIR                             |
| 1128   | Glassbreak Detector                                   |
| 1131   | Recessed Contact                                      |

|           |  |
|-----------|--|
| 1134      | Wiegand Interface Module                 |
| 1135      | Siren, 100 dB                            |
| 1136      | Remote Chime                             |
| 1137      | LED Emergency Light                      |
| 1139      | Bill Trap                                |
| 1141      | Wall Button                              |
| 1142      | Two-Button Hold-up Transmitter           |
| 1142BC    | Two-Button Belt Clip Hold-up Transmitter |
| 1144-1    | One-Button Key Fob                       |
| 1144-2    | Two-Button Key Fob                       |
| 1144-4    | Four-Button Key Fob                      |
| 1144-1P   | One-Button Key Fob                       |
| 1144-D    | Dual-Button Key Fob                      |
| 1148      | Personal Pendant                         |
| 1154      | Four-Zone Input Module                   |
| 1158      | Eight-Zone Input Module                  |
| 1164      | Smoke Detector with Synchronized Sounder |
| 1164NS-W  | Smoke Detector with No Sounder           |
| 1166      | Smoke Ring                               |
| 1168      | Smoke/CO/Low Temp Detector               |
| 1183-135F | Heat Detector (Fixed)                    |
| 1183-135R | Heat Detector (Rate of Rise)             |
| 1184      | Carbon Monoxide Detector                 |

**Accessories**

|       |                              |
|-------|------------------------------|
| 270   | Network Transient Suppressor |
| 277   | Trouble Annunciator          |
| 300   | Four-wire Harness            |
| 303   | Silence/Reset Push-Button    |
| 305   | Plug-in Output Relay         |
| 306   | Tamper Harness               |
| 307-S | Screw-on Tamper Switch       |
| 3012  | Clip-on Tamper Switch        |
| 335   | Intrusion Siren              |
| 370   | Lightning Suppressor         |
| 374   | Surge Voltage Suppressor     |
| 431   | Output Harness               |
| 738Z+ | Z-Wave Interface Module      |
| 861   | Power Distribution Module    |

**Dealer Management**

Dealer Admin™  
Remote Link™ Programming Software

**End User Management**

Virtual Keypad  
VirtualKeypad.com  
Entré™ Access Control Software

**System Specifications****Primary Power (Included):**

16.5 VAC 50 VA transformer

**Secondary Power:**

12 VDC Battery  
Models: 364, 365, 366, 368 or 369

**Output Rating:**

Bell & Smoke Aux Share 2.0 Amps at 12 VDC  
(56 VA & 100 VA Transformer options available for up to 3.0 Amps @ 12 VDC)

**Current Draw:**

174 mA

**Enclosures:**

|                         |                              |
|-------------------------|------------------------------|
| Material                | Cold-rolled steel            |
| Model 350 (Gray or Red) | 17.5" W × 13.5" H × 3.5" D   |
| Model 350A (Gray)       | 17.5" W × 13.5" H × 3.75" D  |
| Model 352X (Gray)       | 14.5" W × 32" H × 4" D       |
| Model 341 (Gray)        | 12.75" W × 6.55" H × 3.15" D |

**Certifications**

New York FDNY  
FCC Part 68  
FCC Part 15  
Underwriters Laboratories (UL) Listed  
UL Bank, Safe, and Vault  
UL Commercial Fire  
UL Standard Line Security  
UL Encrypted Line Security  
NIST Validated Certificate #2350 and #2595  
Underwriters Laboratories Canada (ULC) Listed  
California State Fire Marshal (CSFM)

For additional information,  
go to [DMP.com/Compliance](http://DMP.com/Compliance).

800-641-4282 | [DMP.com](http://DMP.com)  
2500 N. Partnership Blvd, Springfield, MO 65803  
Designed, engineered and manufactured in  
Springfield, MO using U.S. & global components

**LIMITED WARRANTY:** DMP warrants that the products manufactured by DMP and described herein shall be free from defects of manufacture, labeling, and packaging for a period of three (3) years from the invoice date to the original Buyer, provided that representative samples of the defective products are returned to DMP for inspection...To read the full DMP Limited Warranty, go to [DMP.com/Warranty](http://DMP.com/Warranty) or check the DMP Price List or Catalog.

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Exhibit 2) Horizontal Sliding Accordion  
Folding Fire Barrier:  
Won-Door FireGuard system

# PROPRIETARY PRODUCT

## **FIREGUARD (FOLDING FIRE DOOR) BY WON-DOOR**

Proposed Location: At the top of open stair C2 on Level 3.

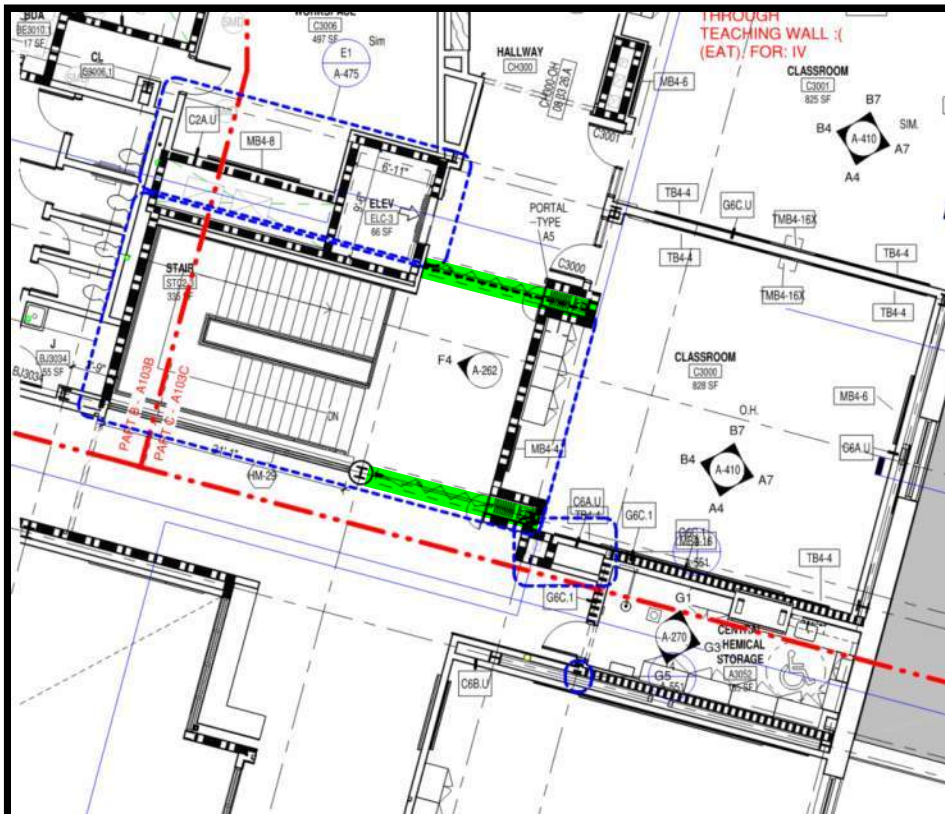
Quantity: (2)

Design Narrative: Stair C2 is the primary vertical circulation connecting all three floors of the school. It is open to the hallway as opposed to being enclosed as the typical egress stairs along the edges of the building are. This openness is what allows it to integrate with the day-to-day activity of the school and to connect the three levels of the academic core in a more direct way than the perimeter stairs do.

However, Stair C2 is also a code-required egress stair and per the fire separation requirements of Construction Type IB that the building falls under, any egress stair that connects more than 2 floors must have a 2 hour rated fire separation between either Levels 1 & 2 or 2 & 3. To maintain the open and welcoming aspect of the stair through all levels, the design is calling to use two FireGuard doors at Level 3 per the plan below.

FireGuard is a 2 hour fire rated folding door that is typically pocketed into the wall and mostly hidden from view. When the fire alarm is activated, the door will unfold and create a 2 hour rated enclosure around the stair, separating it from the rest of Level 3. There are operable hinged doors within the folding partition that allow for egress through the stair.

The FireGuard door has been reviewed with the Wakefield Fire Department and they have indicated that they are amenable to the use of the product.



Stair C2 Level 3 - highlight indicates location of the (2) FireGuard folding doors



**SERVING** customers since 1962

**PROVIDING** fire and security solutions

**FACILITATING** design freedom

**COMPLYING** with building code

**PROTECTING** life and property

**SETTING** the standard



# THE WON-DOOR SOLUTION



## DESIGN FLEXIBILITY

- Custom Engineered with Straight & Curved Configurations
- Widths as Long as a Football Field & Heights 5x's a Standard Swing Door



## CODE COMPLIANT

- NFPA & IBC Compliant and Evaluated by ICC-ES (see ESR-1394)
- Approved for Fire, Smoke, Draft, Egress & Access Control



## FIRE RATED

- Fire Ratings up to 3 Hours (Tested to UL10B Standard)
- Won-Door has the Only Movable Fire Wall (tested to ASTM E119 Standard)



## SECURE ACCESS

- Compartmentalize and Secure a Building in Seconds with High-Speed Options
- Integrate with New or Existing Credentialed Devices and Monitoring Systems
- Activate to Prohibit Aggressors from Entering while Allowing Emergency Egress



## COST EFFECTIVE

- Reduce Sprinklers, HVAC Systems and Fire Rated Glass
- Simultaneously Meet Fire and Security Needs with One Product



# WON-DOOR APPLICATIONS

Won-Door Fireguard is routinely specified by designers to meet all codes pertaining to egress and opening protective requirements while providing architects with total design freedom. Won-Doors can be used for numerous design applications, including:

- AREA SEPARATION
- VERTICAL OPENING PROTECTIVE
- STAIRWELL ENCLOSURES
- COMMUNICATING STAIRS
- VERTICAL EXIT ENCLOSURE
- OCCUPANCY SEPARATION
- CROSS CORRIDOR SEPARATION
- HORIZONTAL EXIT ENCLOSURE
- ELEVATOR LOBBY SEPARATION
- SMOKE AND DRAFT CONTROL
- COMPARTMENTALIZATION
- SAFE AREAS OF REFUGE
- ATRIUM SEPARATION
- STAGE PROSCENIUM PROTECTIVE



## COMMUNICATING STAIRS

**Wiseburn High School** in LA, California has twelve Won-Doors throughout its award winning facility. This 4th story bi-parting Won-Door spans 130 feet.



## VERTICAL EXIT ENCLOSURES

◁ **Intermountain Healthcare** in Layton, Utah used 14 Won-Doors throughout their facility, including these five, 55-foot long Won-Doors with custom curves configured for rapid opening to help architects get the needed additional egress required by code.



## CROSS CORRIDOR SEPARATION

**Hazel Wolf Elementary** in Portland, Oregon, utilizes the flat lead post option to minimize pocket spaces and removes the need for pocket cover doors.

# COMMON *LOCATIONS*

Won-Door products are utilized in many different project types around the world where you'll likely find us protecting the nearest school or city's tallest high-rise, including the Empire State building and Willis Tower (formerly Sears Tower).

- EDUCATION
- HOSPITALS & MEDICAL FACILITIES
- COMMERCIAL BUILDINGS
- PLACES OF WORSHIP
- MULTI-RESIDENTIAL & HOTELS
- SHOPPING CENTERS
- CASINOS & CONVENTION CENTERS
- CULTURAL CENTERS
- HIGHRISE & MULTI-USE BUILDINGS
- GOVERNMENT FACILITIES
- THEATERS
- STADIUMS & ATHLETIC FACILITIES
- AIRPORTS



## HIGH-RISE

The tallest building west of the Mississippi, **Wilshire Grand** in Los Angeles, incorporated 25 Won-Doors into its open and elegant design.





## SCHOOLS

Saudi Arabia's **Princess Nora University**, the largest university in the world dedicated solely to women, incorporates over 100 Won-Doors throughout its expansive facility. Won-Door fire and security products can be found in over 1,600 universities and tens of thousands of K-12 facilities.





# FIRE SAFETY



## MEANS OF EGRESS

The Won-Door FireGuard is the only horizontal sliding fire door approved for use in a means of egress in place of swinging fire doors with no occupant load restrictions and are approved in all but H-Occupancies (Hazardous). Won-Doors are fully compliant with **NFPA and IBC** requirements and are evaluated by **ICC-ES (see ESR-1394)** for fire resistance, smoke and draft control, access control, fire, smoke and movable fire wall ratings. For more info visit [wondoor.com/codes](http://wondoor.com/codes).



**SAFE AND ACCESSIBLE**

The **University of Florida** used Won-Door FireGuard doors (left) instead of swinging doors (below) to keep stairwells more open and accessible, even in a fire emergency.

**DESIGN FREEDOM**

**AMC Theaters** repeatedly use Won-Doors to keep cinema advertisements and featured movies visible to all their patrons, while protecting the building from smoke and fire, as seen in this 93-foot wide and 28-foot tall Won-Door.



# SECURITY SOLUTIONS

## HIGH SPEED

Compartmentalizes and hardens buildings in seconds while still meeting ADA requirements and allowing for safe and secure passage.

## ACCESS CONTROL

Limits access after hours or in emergencies at the push of a button. Connects to external peripheral devices such as a keypad, card reader or fingerprint scanner. Blocks sight lines and keeps out unwanted intruders.

## CODE COMPLIANT

Meets the **NFPA and IBC** requirements for use in a means of egress (**see ESR-1394**). Prohibits aggressors from entering while still allowing for emergency egress out. Visit [wondoor.com/codes](http://wondoor.com/codes) for more information.







### **WIDE OPEN - FOR LESS**

Won-Door takes a corridor that would otherwise be filled with banks of swinging doors and creates a more architecturally open and secure design, eliminating bottlenecks and other points of contention with less contact surfaces to sanitize. Won-Door can do all of this and more for less money.

Exhibit 3) Insulated Glazing Units with  
Integral Solar Control Grids:  
OKALUX OKAWOOD Insulated Glass  
with Wooden Grid

# PROPRIETARY PRODUCT

## **OKAWOOD (INSULATED TRIPLE GLAZED UNIT WITH INTEGRAL WOOD GRID) BY OKALUX**

Proposed Location: At the upper 2/3's of the Media Center sawtooth curtainwall.

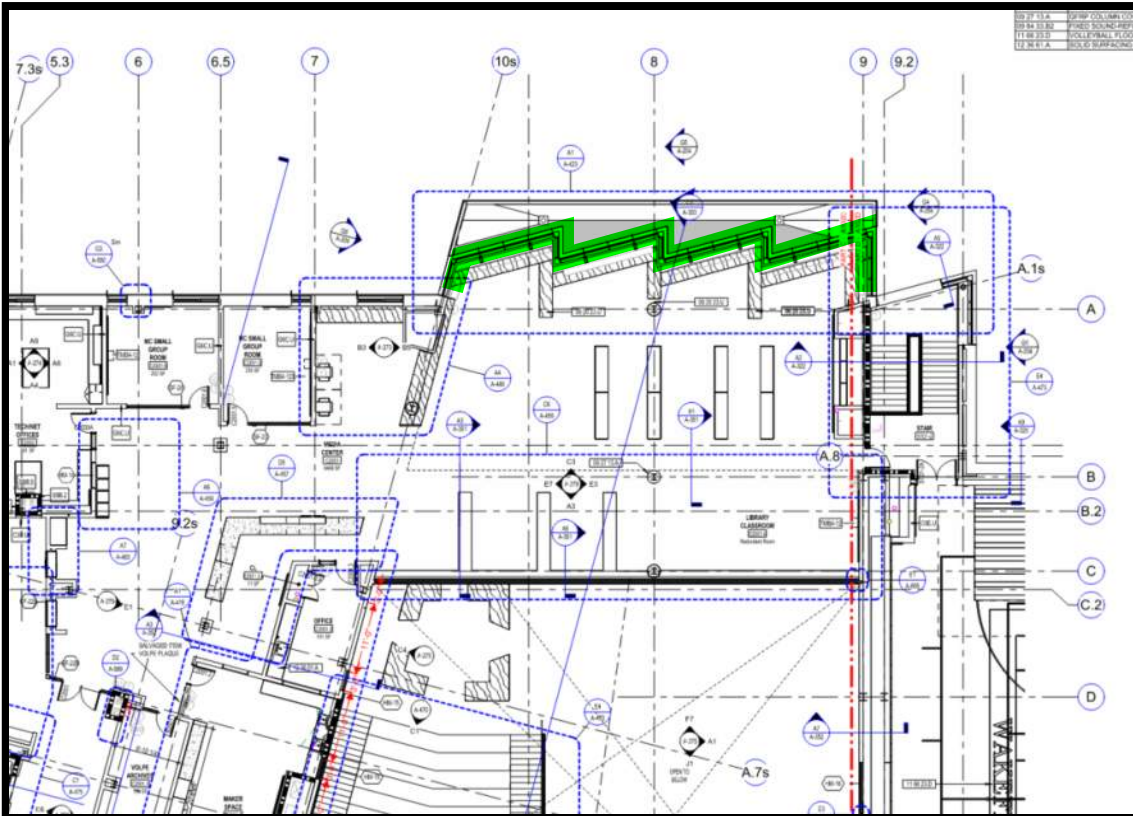
Quantity: +/- 1,110 SF

Design Narrative: The Media Center is a double-height space that sits above the school's main entry and is the most prominent design element on the facade of the building. The space serves a multitude of purposes and, along with the adjacent Dining Commons, acts as the "heart of the school." It will be used throughout the day by students and staff.

The glazed sawtooth curtainwall along the facade is not only an important piece of the exterior design but it also helps to activate the core of the Media Center by providing daylight and a strong visual connection to the outside. However, the sawtooth is west-facing which brings challenges involving glare and unwanted heat gain during the afternoon. To mitigate both of these issues, some form of sun control device is required.

After extensive study with the project's daylighting consultant and a design review with the Exterior and Interior Design Focus Group, it was agreed that Okawood, a triple-glazed IGU with an integral wood grid angled to provide optimal glare and solar heat gain control, was the ideal product for the Media Center. Beyond the beauty of the product, it meets all of the requirements that WMHS and the design team are aiming to achieve:

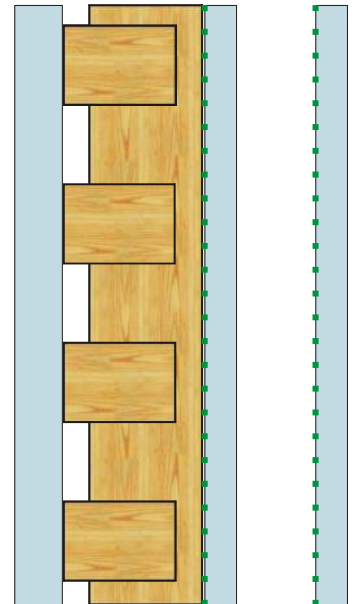
- a) minimal maintenance: as opposed to an exterior sun control device it will not weather or require regular cleaning, and compared to an interior screen it will not accumulate dust
- b) easy install: the product is installed within the curtainwall framing the same as any IGU would be, cutting down on additional details and costs
- c) energy compliant: the IGU meets the stringent energy code requirements of the MA Stretch Code



Media Center plan at Level 2 - highlight indicates location of the Okawood glazing

## OKAWOOD - Insulating Glass with Wooden Grid

OKAWOOD is a successful synthesis between the classical and the modern construction material, between wood and glass. OKAWOOD is made up of a filigree wooden grid which is integrated in the cavity between the glass panes of insulated glazing. Therefore the natural wooden material is protected against the effects of the weather.



OKAWOOD offers:

- efficient directionally selective sun protection
- very good heat insulation
- natural vibrant appearance of the façade
- partial through-vision
- privacy screening from outside to inside
- can be easily recycled
- visibility for birds

### Physical properties

#### Thermal insulation

OKAWOOD is available as a 2-pane make-up with a cavity of 18 mm, and also as a 3-pane make-up with an additional cavity between the glass panes.

Depending on the gas filling and coating, the 2-pane make-up achieves  $U_g$  values  $\geq 1.3 \text{ W/(m}^2\text{K)}$ . As a 3-pane make-up,  $U_g$  values  $\geq 0.6 \text{ W/(m}^2\text{K)}$  are possible.

#### Sound insulation

The integrated wooden grid has no significant effect on the sound insulation. The achievable values depend on the glass assembly.

#### Spectral properties

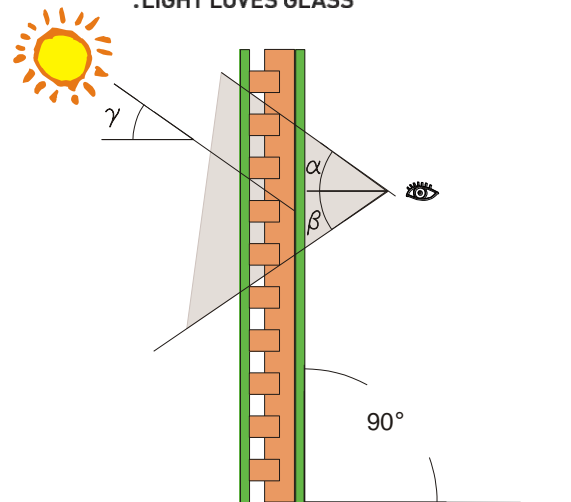
The wooden grid acts as a solar protection device and allows a warm tint of daylight to enter between the bars.

The compact cross-section of the louvres enables horizontal through-vision of approx. 50% of the surface area.

The function of OKAWOOD depends on the prevailing sunlight conditions. Partial through-vision is always given, despite the sun protection which differs depending on the season and time of day.

Integrated in a vertical façade, OKAWOOD functions as follows:

1. direct irradiation from high and medium solar altitude
  - thermal solar protection with total solar energy transmittance values of as low as  $\geq 7\%$ , in particular secondary heat transfer with low solar radiation transmission
  - glare protection
2. direct irradiation from low solar altitude
  - partial transmission of the direct sunlight



## Technical values of standard types

**Table 1:** Geometry of the OKAWOOD grid

| Type           | Distance of louvre [mm] | Horizontal through-vision % | Through-vision to  |                   | Lock out angle $\gamma$ [°] |
|----------------|-------------------------|-----------------------------|--------------------|-------------------|-----------------------------|
|                |                         |                             | above $\alpha$ [°] | lower $\beta$ [°] |                             |
| <b>OKAWOOD</b> | 10                      | 50                          | 35                 | 35                | 35                          |

The following information applies to 2-pane make-up consisting of an external pane with a thickness of 6 mm and an inner pane with a thickness of 6 mm with a functional low-e coating at face #3.

**Table 2:** Technical values for the 2-pane make-up with low-e coating (vertical glazing)

| Type           | Make-up | $T_v$ % min. <sup>1)</sup> | $T_v$ % max. <sup>2)</sup> | TSET % min. <sup>1)</sup> | TSET % max. <sup>2)</sup> | $U_g$ value [W/(m <sup>2</sup> K)]<br>$U_g$ [Btu/(hr ft <sup>2</sup> °F)]<br>cavity 18 mm |                   |                   |
|----------------|---------|----------------------------|----------------------------|---------------------------|---------------------------|---|-------------------|-------------------|
|                |         |                            |                            |                           |                           | Krypton   | Argon             | Air               |
| <b>OKAWOOD</b> | 2-pane  | 2                          | 30                         | 11                        | 28                        | <b>1.3</b> (0.23)   | <b>1.6</b> (0.28) | <b>1.9</b> (0.33) |

The following information applies to 3-pane make-up consisting of an external pane with a thickness of 6 mm, a middle pane with a thickness of 6 mm with a low-e coating at face #3 and an inner pane with a thickness of 6 mm with a low-e coating at face #5.

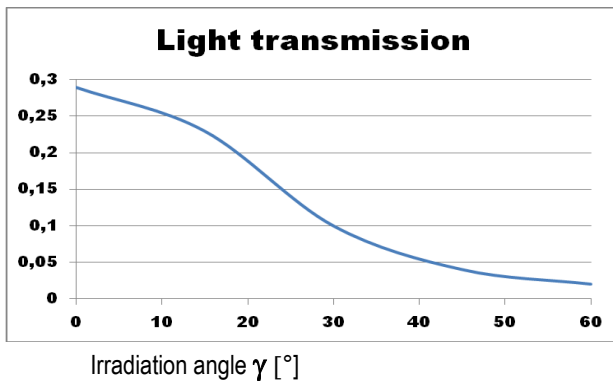
**Table 3:** Technical values for the 3-pane make-up with low-e coating at face #3 and face #5 (vertical glazing)

| Type           | Make-up | $T_v$ % min. <sup>1)</sup> | $T_v$ % max. <sup>2)</sup> | TSET % min. <sup>1)</sup> | TSET % max. <sup>2)</sup> | $U_g$ -value [W/(m <sup>2</sup> K)]<br>$U_g$ [Btu/(hr ft <sup>2</sup> °F)]<br>cavity 18 mm + 10/12 mm |                   |                   |
|----------------|---------|----------------------------|----------------------------|---------------------------|---------------------------|---|-------------------|-------------------|
|                |         |                            |                            |                           |                           | Krypton<br>10 mm  | Argon<br>12 mm    | Air<br>12 mm      |
| <b>OKAWOOD</b> | 3-pane  | 2                          | 23                         | 7                         | 21                        | <b>0.6</b> (0.11)   | <b>0.8</b> (0.14) | <b>1.0</b> (0.18) |

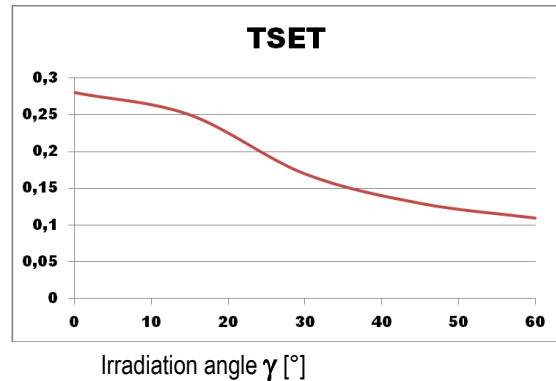
<sup>1)</sup> for angle of incidence  $\gamma = 60^\circ$

<sup>2)</sup> for angle of incidence  $\gamma = 0^\circ$  (vertical to the glass surface)





**Figure 1:** Angle-selective light transmission  $T_v$  according to DIN EN 410 of OKAWOOD in the 2-pane make up with low-e coating



**Figure 2:** TSET according to DIN EN 410 in the 2-pane make up with low-e coating

Legend and related values:

|       | unit                 | standard                 | technical term  |
|-------|----------------------|--------------------------|---|
| $U_g$ | W/(m <sup>2</sup> K) | DIN EN 673<br>DIN EN 674 | Thermal transmittance   |
| TSET  | %                    | DIN EN 410               | Total solar energy transmittance or solar heat gain coefficient             |
| $T_v$ | %                    | DIN EN 410               | Light transmission (direct/hemispheric resp. diffuse/hemispheric)           |
| $F_c$ | %                    | DIN 4108                 | Reduction factor of a solar control system, $F_c = TSET / TSET_{reference}$ |
| SC    | %                    | GANA Manual              | Shading coefficient, $SC = TSET / 0.86$                                     |

The above data are approximate data. They are based on measurements of approved test institutes and calculations derived from these measurements. Values determined on a project-specific basis may vary from the above values.

Direct transmission relates to direct incidence of light, generally vertical (model situation for direct sunlight). Diffuse transmission applies to homogeneous, diffuse incidence of light from the outer hemisphere (model situation for an overcast sky). All values were measured hemispherically.

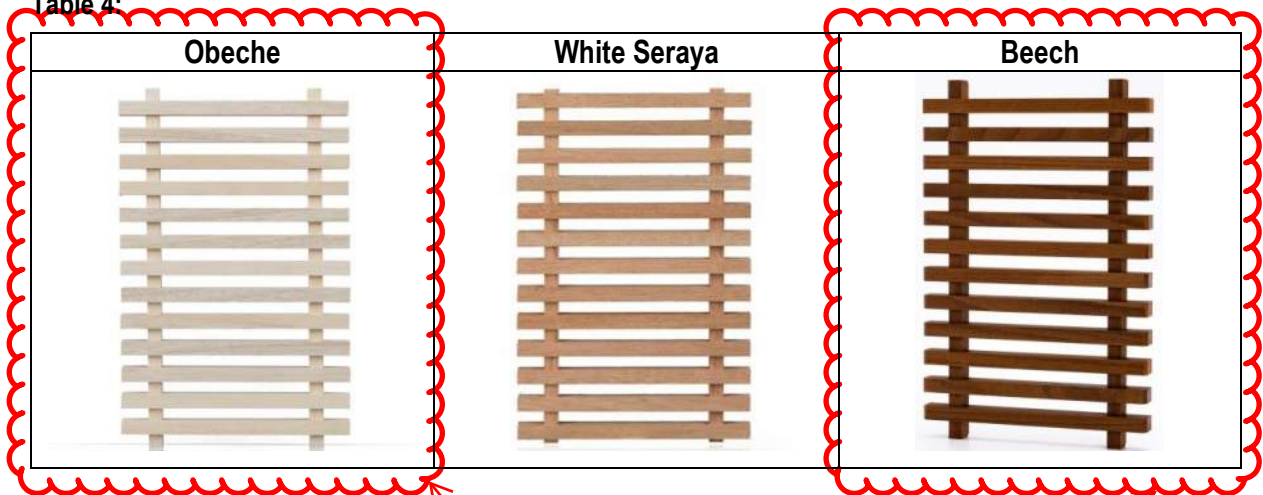
The specified values may change as a result of technical developments. No guarantee is therefore given for their correctness.

## Make-up

The special feature of OKAWOOD is that the wooden grid for solar control is integrated in the cavity between the glass panes of insulated glazing and so require no special attention in terms of installation, maintenance and cleaning. In fact, the OKAWOOD element can be treated like conventional insulating glass. The glass thickness and type are based on the structural needs and constructional requirements.

The precious wood grid insert is made of solid wood. All the wood used in our products originates from sustainably managed forests. Other types of wood are available upon request.

Table 4:



**Standard make-up**

**Vertical glazing:  
2-pane make-up**

Outer pane made of thermally treated glass  
 Cavity: 18 mm with wooden grid, rough-sawn surface  
 Inner pane made of thermally treated glass, low-e coating face #3

FINISH TBD PENDING REVIEW  
OF SAMPLES

**3-pane make-up**

Outer pane made of thermally treated glass  
 Cavity 1: 18 mm with wooden grid, rough-sawn surface  
 Middle pane made of thermally treated glass, low-e coating #3  
 Cavity 2: 8 to 12 mm with gas filling  
 Inner pane made of thermally treated glass, low-e coating face #5

**Standard make-up**

**Horizontal glazing:**

**2-pane make-up**

Outer pane made of thermally treated glass, functional coating face #2  
 Cavity: 18 mm with wooden grid, rough-sawn surface  
 Inner pane made of laminated glass with thermally treated glass

**3-pane make-up**

Outer pane made of thermally treated glass, functional coating face #2  
 Cavity 1: 18 mm with wooden grid, rough-sawn surface  
 Middle pane made of thermally treated glass  
 Cavity 2: 8 to 12 mm with gas filling  
 Inner pane made of laminated glass with thermally treated glass, low-e coating face #5

## Dimensions

The table below show maximum dimensions and visible widths.

|   |              |
|---|--------------|
| Glass dimension parallel to louvre direction      | max. 3500 mm |
| Glass dimension perpendicular to louvre direction | max. 3500 mm |
| Louvre length                                     | max. 1700 mm |
| Length of support elements                        | max. 3500 mm |
| Visible width of louvres                          | 10 mm        |
| Distance between louvres                          | 10 mm        |
| Visible width of support elements                 | 10 mm        |
| Distance between support elements                 | max. 600 mm  |
| Freely cantilever of louvres                      | 50 mm        |
| End strip for shaped units                        | 10 mm        |

Widths / heights in excess of the maximum lengths specified in the table above require a joint. At this joint it may be possible to see a gap or even an offset between the neighbouring louvres.

The material used as interlayer is a natural product. For this reason, deviations in colour, brightness and alignment of the wooden louvres may occur. Optical changes may result on some surfaces from the effects to temperature and UV rays. Also spots of natural resin may appear at the surface of the wood. This phenomenon is not a product fault.

The maximum area is 7 m<sup>2</sup>. Special shapes are possible. For shaped units with inclined edges an end strip of 10 mm width is required. The feasibility and divisions must be discussed with OKALUX beforehand. It may be necessary to use an increased secondary sealant in the case of smaller dimensions and/or greater thickness of glass. The required edge seal width must be discussed with OKALUX beforehand. OKALUX will specify the location of the joints.

For tolerance reasons and due to differing temperature expansion, the insert may exhibit a visible light gap between the insert and the space bar. For this reason, the overall sealant (spacer bar + secondary seal) plus additional 5 mm have to be covered by a profile or by an appropriate edge screen printing.

In the case of a polysulphide as secondary seal, it may be necessary to use a exceed cover in order to provide sufficient UV protection. In the case of a frameless glazing system, it is generally recommended that the edge areas are covered using a UV-impenetrable edge enamelling. Depending on loading, the required sealant width can be considerably greater than that of "conventional" insulating glazing.

More detailed information you can find in our General Customer Notes "OKAWOOD tolerances".

## Installation instructions

OKAWOOD insulating glass is glazed as per normal insulating glass. During transportation, the insert may slide to the side, creating a greater visible slit between the spacer and the insert or the support profiles could become inclined. We must be notified in writing beforehand of any special loads which may occur during transportation (vibrations/shaking).

For instructions and recommendations for the installation of our insulating glazing, please refer to our information and instructions for customers contained in "Delivery of OKALUX Glass Products" and "General Information on Glazing".

## Other printed matter

If you do not have the following printer matter, please request it directly from OKALUX or download it from the Internet at [www.okalux.com](http://www.okalux.com):

General terms and conditions of business  
Product-specific information texts

### As well as these, there are the following customer notes:

Customer notes on offers  
Customer notes on delivery  
Customer notes alarm glass  
Customer notes screen printing  
Customer notes Structural Glazing / Edge deletion  
Customer notes on heat-soak test  
Customer notes on glazing  
Customer notes SIGNAPUR®  
Customer notes OKAWOOD tolerances  
Cleaning instructions for OKALUX gen.  
Cleaning instructions OKACOLOR  
Guideline for visual quality



OKAWOOD



VIEW OF ENTRY PLAZA AND OKAWOOD IGU AT THE MEDIA CENTER CURTAINWALL

OKAWOOD



VIEW OF MEDIA CENTER CURTAINWALL AND OKAWOOD IGU

**Exhibit 4) Door Hardware:  
Everest 29 SL Cylinders by Schlage**

## PROPRIETARY PRODUCT

### EVEREST 29 DOOR CYLINDER BY SCHLAGE

Proposed Location: At all mechanically locked doors.

Quantity: Refer to hardware sets in the 08 71 00 Door Hardware specification

Design Narrative: The Town of Wakefield requires the use of Everest cylinders from Schlage to achieve continuity with current keying systems and anticipated keying systems throughout their schools and municipal buildings. Wakefield seeks to maintain an efficient, comprehensive keying strategy to support best maintenance and building safety practices.





## Everest 29™ SL

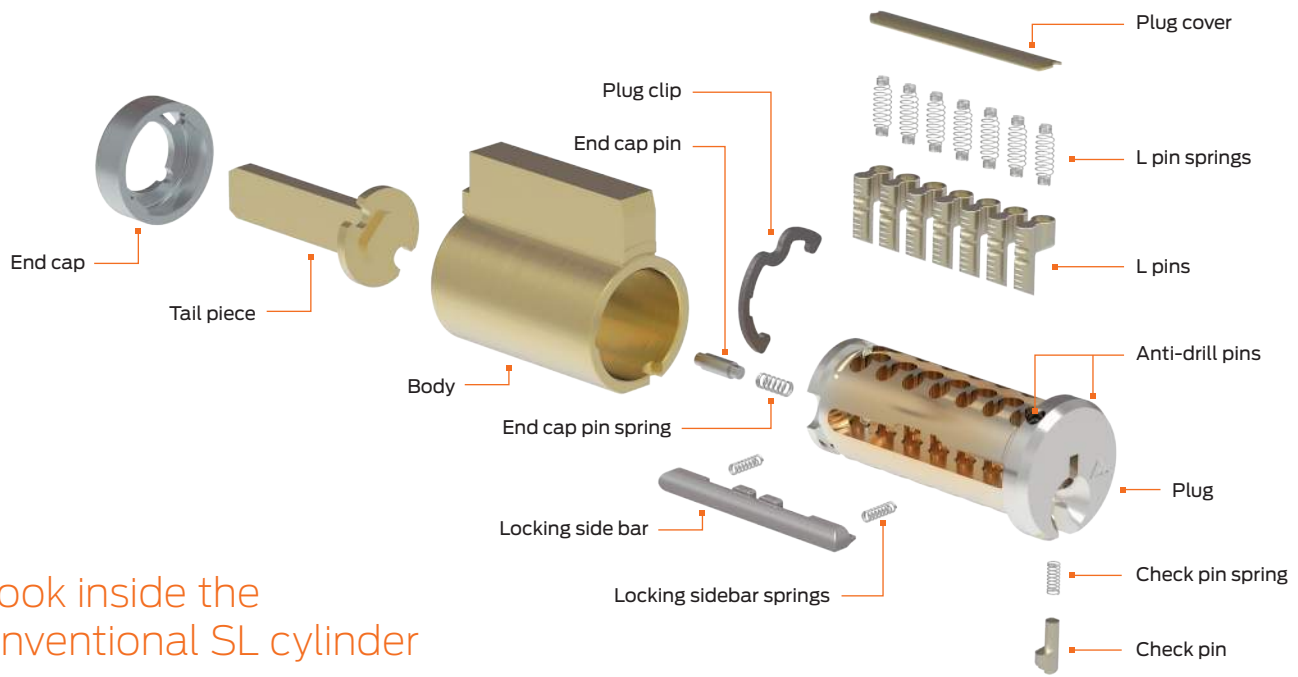
7-pin full size cylinders



Everest 29™ SL cylinders are capable of accepting the same Schlage A2 7-pin key system used in SFIC cylinders. Schlage® can fit seven pins into a full size Conventional or interchangeable core (FSIC) cylinder by utilizing a locking side bar and patented L-pin design. Seven pins provides significantly more keying combinations than normal 6-pin full-size commercial cylinders, making SL ideal for large campuses.



Everest 29 SL users can achieve a maximum number of combinations in a system that can include Primus XP geographically exclusive cylinders and side bit milled keys



## A look inside the Conventional SL cylinder

### Benefits

- Allows one Everest 29 R key system to span three unique cylinder formats: Conventional, FSIC, and SFIC.
- 7-pin design offers four times more keying combinations in a master key system than 6-pin cylinders
- Enables Primus XP exclusivity and physical security features to be introduced into an SFIC based facility
- Locking side bar mechanism improves pick and bump resistance
- Key duplication on standard (basic) key cutting equipment
- SL cylinders fit all Schlage and Falcon® cylindrical locks
- Backward compatible to Everest B keyway families
- Fits an extensive list of competitor's locks

### Additional security gained with Primus® XP

|                                      | Everest 29 SL | Everest 29 SL Primus XP |
|--------------------------------------|---------------|-------------------------|
| Patented until 2029                  | ■             | ■                       |
| Check pin and single side bar        | ■             | —                       |
| Utilizes 2 independent sidebars      | —             | ■                       |
| Maximum key duplication restrictions | —             | ■                       |
| Uses pin kit # 40-247                | ■             | ■                       |
| Levels 7-9 geographic exclusivity    | —             | ■                       |
| Electronic validation available      | ■             | ■                       |

### Finish options

| Color                    | Bright brass (605) | Satin brass (606) | Antique brass (609) | Satin bronze (612) | Oil rubbed bronze (613) | Satin nickel (619) | Matte black (622) | Bright chrome (625) | Satin chrome (626) | Bright stainless steel (629) | Satin stainless steel (630) | Aged bronze (643e) |
|--------------------------|--------------------|-------------------|---------------------|--------------------|-------------------------|--------------------|-------------------|---------------------|--------------------|------------------------------|-----------------------------|--------------------|
| Plug face                | —                  | ■                 | —                   | —                  | —                       | —                  | ■                 | —                   | ■                  | —                            | —                           | ■                  |
| Mortise and RIM housings | —                  | ■                 | ■                   | ■                  | ■                       | ■                  | ■                 | ■                   | ■                  | ■                            | ■                           | ■                  |

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### About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit [www.allegion.com](http://www.allegion.com).

KRYPTONITE ■ LCN ■  ■ STEELCRAFT ■ VON DUPRIN



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