Equipment Schedule (Building Security)

Item #	Equipment	Manufacturer	Part Number	Description	Notes
1	RDR	HID	900NHRNEK0001T	HID pivCLASS R10-H Smart Card Reader	
2	RDR	HID	923NPRNEK0032V	HID pivCLASS RKCL40-P Smart Card Reader	
3	HW	GRI	6644-1	GRI Resistor Pack	
4	HW	Tripp Lite	SRWX12USNEMA	Tripp Lite 12U Wa;; Mount Rack Enclosure Cabinet	
5	PC	Dell	SV-100E-1T-I3	SV-100E-1T-I3	
6	HW	Dell	KM3322W-R-LTN	Dell Keyboard & Mouse	
7	HW	Dell	DELL-E2423HN	Monitor	
8	HW	Cisco	CBS350-8FP-2G-NA	Cisco Ethernet Switch - 10 Ports - Manageable	
9	SW	Genetec	GSC-5.11	Security Center Version 5.11.	
10	SW	Genetec	GSC-BASE-S	Genetec Security Center (GSC) Base Standard Package.	
11	HW	Genetec	SY-CLOUDLINK-G2	Genetec Cloudlink	
12	HW	Mercury	SY-LP4502	Mercury Intelligent Controller, Linux Based, 8In/4Out/2Rd,	
13	HW	Mercury	SY-MR52-S3	Mercury MR52 2-reader interface module Series 3 (8 inputs, 6 relays, PCB only,	
14	PSU	LSP	SY-DV16RD-E8M2-NET	LifeSafety Power - Genetec enclosure - 12V & 24VDC | 400W	
15	Server	Genetec	SV-1030E-R3-24T-8-334	treamvault 1030E Series - 1U 3-Bay Appliance 24TB Raw RAID 5	
16	SW	Genetec	ADV-RDR-S-1Y	Annual SSA Subscription	
17					
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PHYSICAL ACCESS SOLUTIONS

pivCLASS® R10, R15, R40 Readers

For the following security areas per NIST SP 800-116:

"Controlled" Areas | **"Limited" Areas** | **"Exclusion" Areas**

pivCLASS® READERS FOR "CONTROLLED" AREAS ENABLE HIGH SECURITY, INTEROPERABILITY AND COMPLIANCE

- **Part of an integrated solution from a single, trusted provider** – Enables FIPS 201 compliance per NIST SP 800-116 guidelines and the TWIC Reader Specification.
- **Contactless reader solution for "Controlled" security areas** – Meets NIST's "Controlled" security area assurance level requirements with a single-factor authentication mode: CHUID + VIS or CAK.
- **Supports multiple card types** – PIV, PIV-I, CAC, CIV (a.k.a., PIV-C), TWIC and FRAC, as well as iCLASS® and HID Prox® cards for easy, phased transitions from legacy technology to new PKI-enabled smart cards.

ADDITIONAL PRODUCT FEATURES:

- Architected for maximum security and affordability. pivCLASS utilizes the pivCLASS® Authentication Module to perform the cryptographic functionality and to pass Wiegand-formatted data to the PACS controller. Locating the critical security operations within the secure perimeter, rather than on the attack side of the door, increases security and reader affordability.
- Up to two pivCLASS readers can connect to a pivCLASS Authentication Module via four-wire RS-485 communication to the reader, typically enabling facilities to re-use much of their existing wiring.
- Available in mullion, mini-mullion and wall switch form factors designed to mount and cover single-gang switch boxes.
- Available with either a pigtail or terminal strip wiring termination.
- Each of these readers can also be ordered with Prox support.

HID Global pivCLASS® Government Solutions enable facilities to upgrade their existing physical access control system (PACS) to FIPS 201 compliance.

The pivCLASS R10, R15, R40 readers and their prox enabled versions deliver the "Controlled" assurance level (as defined in NIST SP 800-116) when used with the pivCLASS Authentication Module (PAM) to perform the following single-factor authentication modes:

CHUID + VIS Authentication – The pivCLASS system tests the signature on the PIV Card Holder Unique IDentifier (CHUID) data object. The CHUID signature check ensures the card is authentic (it came from a valid issuer) and has integrity (it has not been altered).

Because the CHUID is a "free read" and will be transmitted unencrypted to any reader, it could be possible for perpetrators to capture a PIV card's CHUID and create a counterfeit card. However, the pivCLASS signature check secures against this threat and identifies cards that have been counterfeited or altered.*

CAK Authentication – pivCLASS readers work with the pivCLASS Authentication Module to perform a PKI challenge-response in addition to a signature check to validate the card authentication key (CAK). The challenge-response test ensures the public key in the card authentication certificate is bound to the private key on the card. pivCLASS CAK authentication secures against cards that have been counterfeited, altered, copied or cloned.

pivCLASS readers are guaranteed to meet stringent specifications for operation, reliability and interoperability with other Genuine HID™ products.

* Per SP 800-116, to achieve "Controlled" assurance, the CHUID read must be combined with a visual check (VIS) of the identification card.

SPECIFICATIONS

Model Name	R10-H	R15-H	R40-H	RP10-H	RP15-H	RP40-H
Base Part Number	900NHR	910NHR	920NHR	900PHR	910PHR	920PHR
13.56 MHz Card Compatibility	PKI-Based FIPS-201 Credentials including PIV, PIV-I, CIV, CAC, TWIC and FRAQ Secure Identity Object (SIO) on iCLASS SE, SE for MIFARE DESFire EV1 and SE for MIFARE Classic standard iCLASS Access Control Application ISO14443A (MIFARE) CSN					
125 kHz Card Compatibility	N/A			HID, AWID, EM4102		
System Requirements	These readers require HID pivCLASS Authentication Module (M2000) to support FICAM compliance					
Typical Contactless Read Range[1]	FIPS 201 type cards can be read using either the contact or contactless card interface					
	FIPS-201 Type Cards, Contactless Interface[1] PIV, PIV-I, CIV, CAC, TWIC and FRAQ					
	1″ (2.5 cm)	1″ (2.5 cm)	1.5″ (3.8 cm)	1″ (2.5 cm)	1″ (2.5 cm)	1.5″ (3.8 cm)
	13.56 MHz iCLASS, DesFIRE and MiFARE Cards[2]					
iCLASS SE	2.5″ (6.4 cm)	2.5″ (6.4 cm)	4.5″ (11 cm)	2.5″ (6.4 cm)	2.5″ (6.4 cm)	4.5″ (11 cm)
DESFire EV1 SE	1″ (2.5 cm)	1″ (2.5 cm)	2″ (5.1 cm)	1″ (2.5 cm)	1″ (2.5 cm)	2″ (5.1 cm)
MIFARE Classic SE	2.3″ (4.0 cm)	2.3″ (4.0 cm)	4.5″ (11 cm)	2.3″ (4.0 cm)	2.3″ (4.0 cm)	4.5″ (11 cm)
	125 kHz Promimity Cards					
HID Prox / AWID	N/A		N/A	2″ (5.1 cm)	2″ (5.1 cm)	2.5″ (6.4 cm)
EM4102	N/A		N/A	3.5″ (8.9 cm)	3.5″ (8.9 cm)	4.0″ (10 cm)
Mounting	Mini-Mullion Size; physically HID's smallest iCLASS readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	Mullion Size; physically HID's second smallest iCLASS readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	Wall Switch Size; designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing	Mini-Mullion Size; physically HID's smallest iCLASS readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	Mullion Size; physically HID's second smallest iCLASS readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	Wall Switch Size; designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing
Color	Black or Gray					
Dimensions	1.9″ x 4.1″ x 0.9″ (4.8 x 10.3 x 2.3 cm)	1.9″ x 6.0″ x 0.9″ (4.8 x 15.3 x 2.3 cm)	3.3″ x 4.8″ x 1.0″ (8.4 x 12.2 x 2.4 cm)	1.9″ x 4.1″ x 0.9″ (4.8 x 10.3 x 2.3 cm)	1.9″ x 6.0″ x 0.9″ (4.8 x 15.3 x 2.3 cm)	3.3″ x 4.8″ x 1.0″ (8.4 x 12.2 x 2.4 cm)
Product Weight (Pigtail)	3.9 oz. (113 g)	5.3 oz. (151 g)	7.7 oz. (220 g)	4.0 oz. (114 g)	5.2 oz. (149 g)	7.8 oz. (222 g)
Product Weight (Terminal Strip)	2.9 oz. (84 g)	4.2 oz. (120 g)	7.5 oz. (215 g)	3.0 oz. (85 g)	4.3 oz. (124 g)	7.6 oz. (216 g)
Operating Voltage Range	+12VDC					
Current Draw - Normal Standby Current[3]	60 mA	60 mA	65 mA	75 mA	75 mA	85 mA
Current Draw - Maximum Average[4]	100 mA	100 mA	110 mA	100 mA	100 mA	110 mA
Current Draw - Peak[5]	200 mA			200 mA		
Operating Temperature	-30º to 150º F (-35º to 65º C)					
Operating Humidity	5% to 95% relative humidity non-condensing					
Storage Temperature	-67º to 185º F (-55º to 85º C)					
Environmental	Indoor / Outdoor; IP55, IP65 if installed with optional gasket (IP65GSKT)					
Transmit Frequency	13.56 MHz			13.56 MHz & 125 kHz		
Protocol	HID pivCLASS Protocol, CoreStreet Reader Protocol					
Cable Distance[6]	Six conductor connection per reader: full duplex four-wire RS485 for communication (500ft (152m), 22AWG), (300ft (91m), 24AWG); two wires for power (500ft (152m), 22AWG)					
Wiring Connection	Pigtail or Terminal Strip					
Certifications	FICAM tested[7], UL294 (US & Canada), FCC Certification, RoHS2					
Housing Material	UL94 Polycarbonate					
% of recycled content (Pigtail)	10.5%	11.0%	10.5%	10.5%	11.0%	10.5%
% of recycled content (Terminal Strip)	11.0%	11.5%	11.0%	10.5%	11.0%	11.0%
UL Ref Number	R10E	R15E	R40E	RP10E	RP15E	RP40E
Warranty	Limited Lifetime					

[1] Typical read range in air. Different types of metal will cause some degradation (typically up to 20%). Use spacers to space product off metal and improve read range if required. Read ranges for FIPS 201 type cards will vary depending upon the card manufacturer.
[2] Measured using the SIO Data Model
[3] Standby Average - RMS current draw without a card in the RF field
[4] Maximum Average - RMS current draw during continuous PIV card reads
[5] Peak - highest instantaneous current draw during RF communication
[6] For cable lengths when used in Wiegand mode see "pivCLASS Reader Installation Guide" PLT-01134
[7] FICAM tested as part of complete physical access control systems

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2014-02-14-pivclass-fips-controlled-readers-ds-en PLT-00413

An ASSA ABLOY Group brand

ASSA ABLOY

pivCLASS® RKCL40, RPKCL40 Readers for FIPS 201

For the following security areas per NIST SP 800-116:

"Controlled" Areas | "Limited" Areas | "Exclusion" Areas

pivCLASS® READERS FOR "LIMITED" SECURITY AREAS ENABLE HIGH SECURITY, INTEROPERABILITY AND COMPLIANCE

- **Part of an integrated solution from a single, trusted provider** – Enables FIPS 201 compliance per NIST SP 800-116 guidelines and the TWIC Reader Specification.
- **Contact reader solution for "Limited" security areas** – Meets NIST's "Limited" security area assurance level requirements with two-factor PIV + PIN authentication.
- **Supports multiple card types** – PIV, PIV-I, CAC, CIV (a.k.a., PIV-C), TWIC and FRAC, as well as iCLASS® and HID Prox® cards for easy, phased transitions from legacy technology to new PKI-enabled smart cards.

ADDITIONAL PRODUCT FEATURES:

- Architected for maximum security and affordability. pivCLASS utilizes the pivCLASS® Authentication Module to provide cryptographic functionality and to pass Wiegand-formatted data to the PACS controller. Locating the critical security operations within the secure perimeter, rather than on the attack side of the door, increases security and reader affordability.
- Up to two pivCLASS readers can connect to a pivCLASS Authentication Module via four-wire RS-485 communication to the reader, typically enabling facilities to re-use much of their existing wiring.
- Mountable on single- or double-gang boxes with a width of roughly a double-gang device.
- Available with either a pigtail or terminal strip wiring termination.
- Contact interface provides backup for cards with broken antennas.

HID Global pivCLASS® Government Solutions enable facilities to upgrade their existing physical access control system (PACS) to FIPS 201 compliance.

pivCLASS readers deliver the "Limited" assurance level as defined in NIST SP 800-116. These readers work with the pivCLASS Authentication Module (PAM) to perform the following two-factor authentication checks:

PIV + PIN – After the cardholder enters his PIN into the pivCLASS reader's keypad, the pivCLASS reader works with the pivCLASS Authentication Module to enable a "match-on-card" check of the PIN. A PIN match unlocks the card's PIV authentication key certificate so it can be read from the card.

The PAM then performs cryptographic tests to ensure the card's validity. This includes a signature check of the PIV certificate and a private key challenge to ensure the public key in the PIV authentication certificate is bound to the private key on the card.

This category of pivCLASS readers secures against cards that have been counterfeit, altered, copied, cloned, lost or stolen.

Optionally, the pivCLASS Authentication Module can utilize these readers for the lower-security "Controlled" assurance level that calls for a single-factor CHUID + VIS or CAK authentication mode using the contact or contactless interface. The authentication mode can be dynamically changed from a central location in response to threat level, time of day or day of week.

pivCLASS readers are guaranteed to meet stringent specifications for operation, reliability and interoperability with other Genuine HID™ products.

SPECIFICATIONS

Model Name	RKCL40-H	RPKCL40-H
Base Part Number	923NPR	923PPR
13.56 MHz Card Compatibility	PKI-Based FIPS-201 Credentials including PIV, PIV-I, CIV, CAC, TWIC and FRAQ Secure Identity Object (SIO) on iCLASS SE, SE for MIFARE DESFire EV1 and SE for MIFARE Classic standard iCLASS Access Control Application ISO14443A (MIFARE) CSN	
125 kHz Card Compatibility	N/A	HID, AWID, EM4102
System Requirements	These readers require HID pivCLASS Authentication Module (M2000) to support FICAM compliance	
Typical Contactless Read Range[1]	FIPS 201 type cards can be read using either the contact or contactless card interface	
	FIPS-201 Type Cards, Contactless Interface[1] PIV, PIV-I, CIV, CAC, TWIC and FRAQ	
	1″ (2.5 cm)	
	13.56 MHz iCLASS, DesFIRE and MiFARE Cards[2]	
iCLASS SE	4.5″ (11 cm)	
DesFIRE EV1 SE	2″ (5 cm)	
MiFARE Classic SE	4″ (10 cm)	
	13.56 MHz iCLASS, DesFIRE and MiFARE Cards	
HID Prox / AWID	N/A	2.5″ (6.4 cm)
EM4102	N/A	3″ (7.6 cm)
Mounting	Double-gang Size; designed to mount on double (preferable for stable wall mount) or single gang switch box	
Color	Black	
Keypad	Yes (illuminated, 4 x 3)	
Dimensions	4.8″ x 6.1″ x 1.2″ (12.2 cm x 15.6 cm x 3.0 cm)	
Product Weight (Pigtail)	14.0 oz (396g)	14.0 oz (398g)
Product Weight (Terminal Strip)	12.9 oz (366g)	13.0 oz (368g)
Operating Voltage Range	+12VDC	
Current Draw - Standby Average[3]	150 mA	
Current Draw - Maximum Average[4]	185 mA	
Current Draw - Peak[5]	250 mA	
Operating Temperature	-4º to 149º F (-20º to 65º C)	
Operating Humidity	5% to 95% relative humidity non-condensing	
Storage Temperature	-67º to 185º F (-55º to 85º C)	
Environmental	Indoor / Outdoor; IP55	
Transmit Frequency	13.56 MHz	13.56 MHz & 125 kHz
Protocol	HID pivCLASS Protocol, CoreStreet Reader Protocol	
Cable Distance[6]	Six conductor connection per reader: full duplex four-wire RS485 for communication (500ft (152m), 22AWG), (300ft (91m), 24AWG); two wires for power (500ft (152m), 22AWG)	
Wiring Connection	Pigtail or Terminal Strip	
Certifications	FICAM tested[7], UL294 (US & Canada), FCC Certification (US), RoHS2	
Housing Material	UL94 Polycarbonate	
UL Ref Number	RKCL40E	RPKCL40E
Warranty	Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)	

[1] Typical read range in air. Different types of metal will cause some degradation (typically up to 20%).
Use spacers to space product off metal and improve read range if required.
Read ranges for FIPS 201 type cards will vary depending upon the card manufacturer.
[2] Measured using the SIO Data Model
[3] Standby Average - RMS current draw without a card in the RF field
[4] Maximum Average - RMS current draw during continuous PIV card reads
[5] Peak - highest instantaneous current draw during RF communication
[6] For cable lengths when used in Wiegand mode see "pivCLASS Reader Installation Guide" PLT-01134
[7] FICAM tested as part of complete physical access control systems

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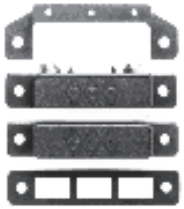
2014-02-14-pivclass-fips-limited-readers-ds-en PLT-00415

Magnetic Contacts with Built-in Resistors

6644

- Supervision For Open and Closed Loop Systems
- Eliminates Soldering on the Job
- Cost Effective
- Standard Switch Uses 1/8 Watt Resistors
- Most Popular Security Panel Resistor Values Available. Please State Value When Ordering.
- Closed Loop Switches have Resistors in Series to Switch
- Open Loop Switches have Resistors Parallel to Switch
- Resistor Only Packs Are Available for Retro-Fits
- Available in Standard Colors



Series Resistor

Parallel Resistor

Magnetic Contacts With Built-In E.O.L. Resistors And Resistor Packs

◆ Supervision For Open and Closed Loop Systems

◆ Eliminates Soldering on the Job ◆ Standard Switch Uses 1/8 or 1/4 Watt Resistors

◆ Closed Loop Switches Have Resistors In Series To Switch

◆ Open Loop Switches Have Resistors Parallel To Switch

◆ Resistor Only Packs Are Available For Retro-Fits ◆ Available In Standard Colors

29A W/1K

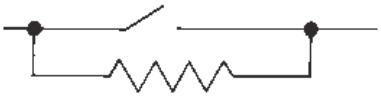
2020-12 W/5.6K

100-T W/1K

180-12 W/2K

PAC-2

SERIES RESISTOR



PARALLEL RESISTOR

Magnetic contacts with end of line resistors are available in most G.R.I. products where size restrictions permit.

Resistor only packs can be custom designed to your specifications using commonly available values. Available in, or without a case. Our very popular 6644 features 2 - 1K 1/8 watt 5% carbon film resistors in our 50R brown case with 2 blue and 2 black 12-inch leads.

The ideal position for the end of line resistor (E.O.L.) is at the farthest point from the panel in the zone loop. This will confirm the integrity of most, if not all, of the wiring between the panel and the last device installed on the zone loop, thus preventing any intentional or accidental compromise of the security zone loop. The closer the E.O.L. is mounted to the panel in the wiring loop, the greater the possibility of compromise of the unprotected loop wiring after the resistor position. Door and window contacts with built-in resistors are the absolute best and easiest way of placing the end of line resistor in that ideal position. Resistors are available in most all popular values in 1/8 or 1/4 watt depending on size constraints. Multi-resistor configurations in conjunction with built-in switches are offered, as well as resistor only packages. Most popular security panel resistor values available. Please state value when ordering. Contact factory for ordering information.

Sample Part Numbers for G.R.I. Magnetic Contacts with End Of Line Resistors:

100-T-W W/1K	20RS-T-W W/3.3K	8080-T-W W/2-10K
180-12-B W/2K	29A-W W/10K	8240 (4400A W/1-360 OHM in series and 1 - 1.8K in parallel)
2020-12-W W/5.6K	4532C W/33K	

WARRANTY:

Lifetime warranty against workmanship, material and factory defects.

GEORGE RISK INDUSTRIES, INC.
G.R.I. PLAZA
KIMBALL, NE 69145

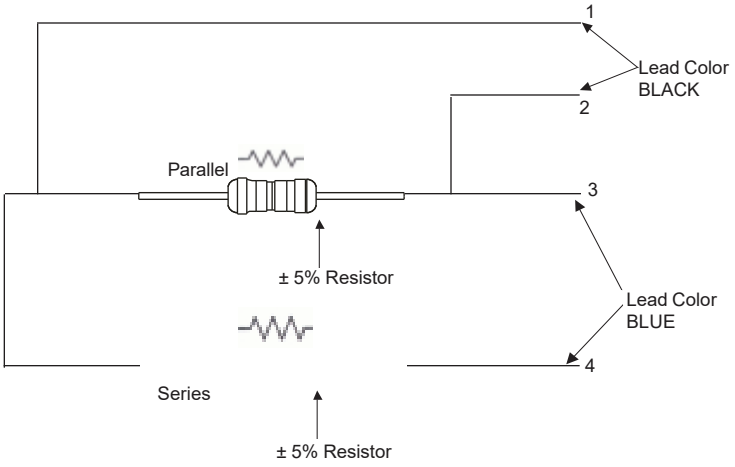
MADE IN U.S.A.

TOLL-FREE 1-800-445-5218
TOLL-FREE 1-800-523-1227
(308) 235-4645
FAX (308) 235-3561
E-MAIL: grisales@megavision.com
WEB SITE: www.grisk.com

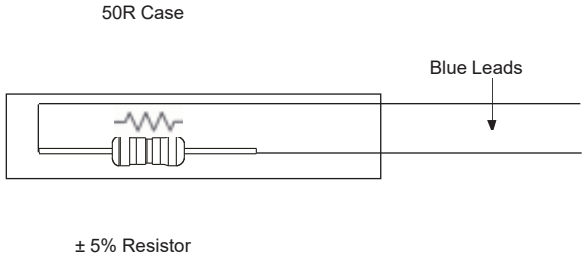
Magnetic Contacts With Built-In E.O.L. Resistors And Resistor Packs

In addition to building switches with E.O.L. Resistors inside the switch case, GRI assembles just the resistors in convenient packages to help in the installation of E.O.L. loads and supervision needs. For 2 or more independent resistors in one case, call factory with specifications.

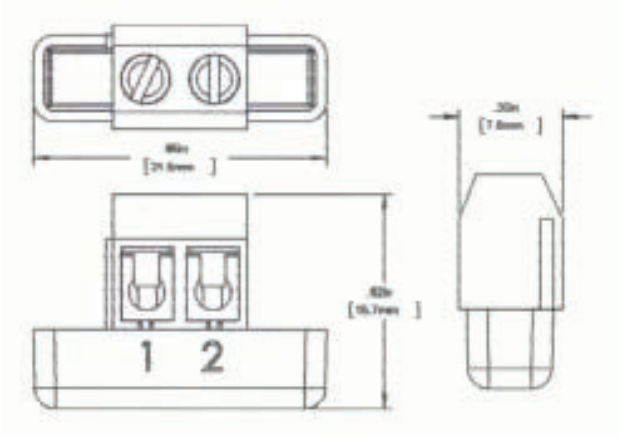
RESISTOR PACKS:

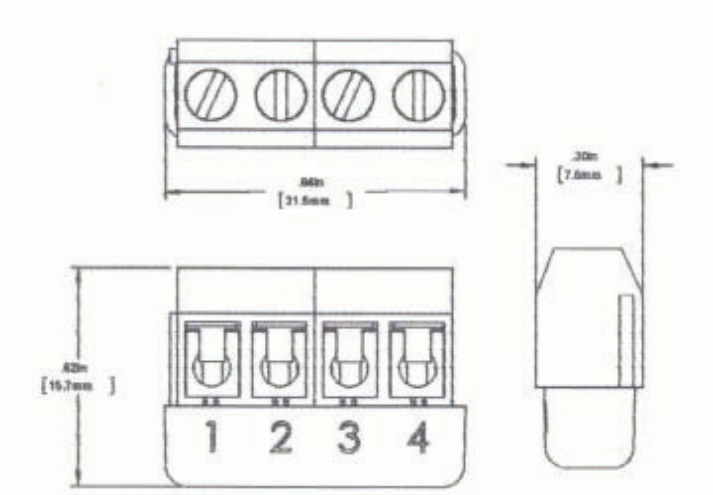


R1: 1 Resistor. Designate your value.



R1-T: Single EOL resistor, screw terminal. Specify value.





6644T

1 and 2 Switch/Trigger
3 and 4 Panel/Device

Note:
See Information in box.

STANDARD SERIES PARALLEL RESISTOR PACKS

Part #	Switch or Trigger	Control Panel on Terminal	Resistor Reading ± 5%	
			Switch Open	Swith Closed
6644T	1 & 2	3 & 4	2K	1K
8366-T	3 & 4	1 & 2	10K	5K

Sampling of Resistor Packs & Part Numbers.
Call G.R.I. for addtional values and part numbers.

GEORGE RISK INDUSTRIES, INC.
G.R.I. PLAZA
KIMBALL, NE 69145

TOLL-FREE 1-800-445-5218
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FAX (308) 235-3561
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WEB SITE: www.grisk.com

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BA-34 Rev O 4/09/10

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1111 W. 35th Street
Chicago, IL 60609 USA
Telephone: 773.869.1234
www.tripplite.com

SmartRack 12U IP54 Switch-Depth Wall-Mount Rack Enclosure Cabinet for Harsh Environments, Hinged Back, 230V

MODEL NUMBER: **SRWX12USNEMA**

Wall-mount cabinet secures and organizes 12U of 19 in. (48.3 cm) rack equipment up to 20.5 in. (52.1 cm) deep in harsh, dirty work environments with limited floor space, such as factories, construction areas and warehouses.

Description

The SRWX12USNEMA SmartRack® 12U IP54 Switch-Depth Wall-Mount Rack Enclosure Cabinet is designed to house standard 19-inch (48.3 cm) rack equipment in harsh, dirty work environments with limited floor space, such as factories, construction areas, utility plants, power stations, transportation terminals, distribution hubs and warehouses. Constructed from heavy-duty steel with a durable black powder-coated finish, the cabinet has a maximum load capacity of 200 pounds (90.7 kg).

The SRWX12USNEMA has an IP54 (NEMA 12) protection rating, protecting sensitive equipment against dirt, dust, lint, oil, drips and splashes. Its built-in air filters, louvered vents on the front door and side panels, sealed gasket around the door frames and brush strips around cable access points prevent dripping water, oil and airborne contaminants from getting inside. You can replace the air filter with standard, off-the-shelf furnace filters. Four high-performance intake fans built into the front door pull filtered air through the cabinet to keep your equipment cool.

The cabinet swings away from the wall on a sturdy hinge, allowing easy back-door access to equipment and cabling during installation and maintenance. The reversible doors can open left or right. The doors and side panels lock securely to help prevent damage, tampering or theft. Convenient ports on the back door allow easy cable routing.

The SRWX12USNEMA comes fully assembled and ready to mount to the wall. Square mounting holes and numbered rack spaces make equipment installation easy. The adjustable vertical mounting rails house equipment up to 20.5 inches (52.1 cm) deep, such as network switches and patch panels.

Highlights

- Maximum load capacity of 200 lb. (90.7 kg)
- IP54 (NEMA 12) rating against dirt, dust, drips and splashes
- Swings away from wall on hinge for easy back-door access
- Locking steel cabinet with built-in ventilation fans
- Secures 12U of 19 in. rack equipment up to 20.5 in. (52.1 cm) deep

Package Includes

- SRWX12USNEMA SmartRack 12U IP54 Switch-Depth Wall-Mount Rack Enclosure Cabinet, 230V
- (20) M6 screws
- (20) M6 cage nuts
- (20) M6 washers
- Dust filter
- C13 to Schuko power cord, 6 ft. (1.8 m)
- C13 to BS 1363 power cord, 6 ft. (1.8 m)
- C13 to C14 power cord, 6 ft. (1.8 m)
- (2) Keys
- Owner’s manual

Tripp Lite
1111 W. 35th Street
Chicago, IL 60609 USA
Telephone: 773.869.1234
www.tripplite.com

Features

Saves Valuable Workspace

- Perfect for harsh, dirty work environments where you need equipment to be secure, organized, out of the way and protected from environmental contaminants
- Houses standard 19 in. (48.3 cm) rack equipment in 12U of space
- Maximum load capacity of 200 lb. (90.7 kg)

IP54 (NEMA 12) Protection Rating

- Built-in air filter, louvered vents and sealing door gaskets keep out dirt, dust, lint, oil, drips and splashes
- Removable air filter can be replaced with standard, off-the-shelf furnace filters
- Built-in high-performance door fans have C13 outlet that accepts various input cords (Schuko, BS 1363 and C14 cords included)
- Sealed cable ports maintain dust and moisture resistance

Hinged Cabinet for Convenient Access

- Swings away from the wall to allow easy back-door access to equipment and cabling during installation and maintenance
- Reversible doors can open left or right to accommodate various rack configurations

Keeps Important Equipment Secure

- Side panels and doors lock securely to help prevent damage, tampering or theft
- Vented panels and built-in fans provide generous airflow to keep equipment cool
- Convenient ports with removable covers and protective brush strips allow cable routing through rear door

Easy Enclosure and Equipment Installation

- Ships fully assembled for quick wall-mounting
- Wall-mounting holes spaced 16 in. (40.6 cm) apart for standard wall stud placement
- Adjustable vertical mounting rails accommodate equipment up to 20.5 in. (52.1 cm) deep, such as network switches and patch panels
- Rails support square-hole mounting
- Rack spaces numbered for easy reference

Meets Payment Card Industry Standards

- Provides physical equipment and media security required for PCI DSS (Payment Card Industry Data Security Standard) compliance

Specifications

OVERVIEW

Tripp Lite
1111 W. 35th Street
Chicago, IL 60609 USA
Telephone: 773.869.1234
www.tripplite.com

UPC Code	037332209320
Rack Type	Enclosure
INPUT	
Nominal Input Voltage(s) Supported	230V AC
Nominal Input Voltage Description	230V 50/60 Hz
Input Plug Type	Schuko; BS1363; C14
Input Cord Length (ft.)	6
Input Cord Length (m)	1.83
PHYSICAL	
Color	Black
Factory Preset Rack Depth (cm)	26.5
Factory Preset Rack Depth (in.)	10.42
Factory Preset Rack Depth (mm)	265
Maximum Device Depth (cm)	52.07
Maximum Device Depth (in.)	20.5
Maximum Device Depth (mm)	521
Minimum Device Depth (cm)	7.62
Minimum Device Depth (in.)	3
Minimum Device Depth (mm)	76
Rack Height	12U
Shipping Dimensions (hwd / cm)	71.12 x 66.04 x 73.66
Shipping Dimensions (hwd / in.)	28.00 x 26.00 x 29.00
Shipping Weight (kg)	42.18
Shipping Weight (lbs.)	93.00
Unit Dimensions (hwd / cm)	63,7 x 60 x 67,11
Unit Dimensions (hwd / in.)	25.08 x 23.62 x 26.42
Unit Weight (kg)	36.83
Unit Weight (lbs.)	81.2
Weight Capacity - Stationary (kg)	91
Weight Capacity - Stationary (lbs.)	200
Rack Depth	Shallow
SPECIAL FEATURES	
Grounding Lug	Front and Back door frames

Tripp Lite
1111 W. 35th Street
Chicago, IL 60609 USA
Telephone: 773.869.1234
www.tripplite.com

CERTIFICATIONS	
Approvals	UL 60950; EIA-310-E, IEC 60297-3-100, IP54 Protection Rating, RoHS
WARRANTY	
Product Warranty Period (Worldwide)	2-year limited warranty

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Streamvault SV-100E

All-in-one security appliance

The Streamvault™ SV-100E all-in-one appliance is designed to help you secure remote sites quickly and easily. It allows you to deploy a Security Center unified security system with video surveillance and access control, and perform local monitoring and recording.

Guaranteed performance

- up to **16** cameras
- up to **16** readers
- up to **16** ALPR cameras
- up to **2TB** storage

Key features

- Turnkey appliance with Genetec™ Security Center pre-installed
- Local recording and monitoring of video, access control and other security events
- Machine learning endpoint protection
- 3-year hardware warranty with 1-year advance replacement

Benefits

Fully unified – The Streamvault SV-100E unifies your security in a single compact appliance. This allows you to record video and monitor entries and exists without deploying multiple devices.

Protect your security system – Streamvault appliances help you build a resilient security system that protects your data and operations. Our cyber security experts stay vigilant on evolving threats and help identify and address new vulnerabilities promptly.

Versatile format – Whether you are looking to deploy a system at a single site, or centralize monitoring across hundreds of remote sites, the SV-100E provides a standardized solution that can be quickly deployed anywhere.

Applications

Retail

Centralize security across your remote stores with the Streamvault SV-100E. Its compact size, energy efficiency and all-in-one capabilities allow you to standardize your processes across your entire chain.

Banking

Secure small service points and unify video with access control to and POS to boost your team's efficiency. The SV-100E Series' small size makes it perfect for location where space is at a premium.

Law enforcement

Implement a digital recording system for interviewing suspects with our Interview Room application. This turnkey solution increases your agency's efficiency when solving crimes.

Technical specifications

OS
Windows 10 IoT Enterprise LTSC

Processor
Intel® Core™ i3

Memory
8 GB DDR4

Ethernet
On-board 1Gb network adapter

Peripherals
Up to 4x USB 3.1
2x USB 2.0

Display
1x HDMI
1x DisplayPort

Mechanical and environmental

Power supply
65W (Max 222 BTU/hr)

BTU
222 BTU/hr

Operating temperature
50°F to 95°F (10°C to 35°C)

Operating humidity
5 - 90% (non-condensing)

Dimensions
1.4” x 7.0” x 7.2” (36 mm x 178 mm x 182 mm)

Weight
2.6 lbs (1.2 kg)

Certifications
IEC 60950-1, European Norm EN 60950-1, CISPR 22/CISPR 24, EN55022/55024

Storage

Drive type
2.5” SATA drive

OS drive
1x 256 GB M.2 SSD

Maximum data storage
2 TB (raw); 1.8 TB (usable)

Cybersecurity

Endpoint protection
BlackBerry Protect machine learning antivirus

Hardened image
200+ security settings changed by default

Maintenance
Verified Windows updates
Connectd services for Genetec software and device firmware updates

Warranty and support

Hardware warranty
3-year warranty with 1-year advance replacement and next business day on-site service

Security Center support
Latest version

Genetec Inc.
genetec.com/locations
info@genetec.com
@genetec

* Hardware specifications are subject to change. Units provided will be equivalent or superior to what is shown in this document.

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SV100E_PS2EN

DELL WIRELESS KEYBOARD AND MOUSE

KM3322W

Stay productive everyday with a reliable wireless combo that's been built to last.

DELL Technologies

DELL WIRELESS KEYBOARD AND MOUSE

Spec Sheet

KM3322W

Essential Productivity

Full-sized, the keyboard comes with a number pad and dedicated multimedia keys for convenient number input and multimedia controls. The 1000 DPI mouse with scroll wheel allows you to navigate with ease.

Built to last

The keyboard and mouse combo offers one of industry's leading battery lives lasting for 36 months[1] for keyboard and 18 months[1] for mouse, giving you absolute peace of mind.

Thoughtfully designed

The keyboard is spill resistant and can withstand accidental splashes and spills. It's anti-fading keys ensure that the letters and numbers on your keyboard remain intact over time The tilt legs on your keyboard give you the flexibility to adjust to your most comfortable typing position.

DELL WIRELESS KEYBOARD AND MOUSE

Spec Sheet

KM3322W

The Confidence to work anywhere.

The wireless keyboard and mouse combo connects easily to your Dell PC. Enhance your workday experience with long-lasting battery life as well as spill-resistant keyboard with anti-fade keys.

Tested and certified to work seamlessly with Dell systems

Easy to use with either hand

128-bit AES (Advanced Encryption Standard) encryption on keyboard helps protect your data transmission across your PCs and devices, providing you with a secure connection while typing.

Advanced Exchange Service gets you a replacement combo shipped the next business day should your existing one become faulty within the 3-year warranty period.

DELL WIRELESS KEYBOARD AND MOUSE

KM3322W

FEATURE	TECHNICAL SPECIFICATION
MODEL	**Dell Wireless Keyboard and Mouse KM3322W**
COLOR	Black
CONNECTIVITY	Wireless - 2.4GHz (USB receiver)
BATTERY LIFE	36 months for Keyboard and 18 months for Mouse[1]
OS SUPPORT	2.4GHz- Windows 7, Windows 8.1,10 and 11; Mac; Linux 6.x; Chrome; Android OS
SOFTWARE	N/A
WARRANTY	3-year Advanced Exchange Service[2]
PACKAGE CONTENT	Keyboard & Mouse USB Receiver Batteries (Keyboard 2 x AAA / Mouse 1 x AA) Documentation
LANGUAGE/ PRODUCT AVAILABILITY	**NA & LATAM** English-US, Latin American **APJ** English-US, Thai, English-International (India) **EMEA** English-International, English-UK, French, German, Italian, Bulgarian, Swiss French/German, Portuguese, Spanish, Estonian, Greek, Arabic, Russian, Ukraine, Turkish, Turkish (F-Type), Czech, Hungarian, Adriatic, Slovakian, Hebrew, Romanian, Belgium, Kazakhstan, Pan-Nordic
MODEL	**Mouse**
SENSOR	Optical LED
SCROLL	Mechanical
RESOLUTION (DPI)	1000
BUTTONS	3
DIMENSIONS	Height: 1.53 inches (38.87 mm) Length: 4.13 inches (104.9 mm) Width: 2.3 inches (58.32mm)
WEIGHT (WITHOUT BATTERIES)	0.13 lbs (57.8 g)
MODEL	**Keyboard**
SPILL RESISTANT KEYBOARD	Yes
KEY TYPE	Anti-fade plunger keys
PROGRAMMABLE KEYS	N/A
MULTIMEDIA KEYS	6 Multimedia Keys (Vol+, Vol-, Speaker Mute, Play/Pause, Forward, Backward)
TILT LEG	Yes
DIMENSIONS	Height: 1.01 inches (25.3) Length: 17.6 inches (444.92) Width: 5.56 inches (141.22mm)
WEIGHT (WITHOUT BATTERIES)	1.1 lbs (497.12 g)
SECURITY	128-bit AES encryption

Product availability varies by country. Contact your Dell representative or visit Dell.com to learn more.

1. Based on Dell analysis of battery life usage model calculations, Oct. 2021. Results vary depending on use, operating conditions, and other factors.
2 Replacement part/unit dispatched, if needed, following completion of phone/online diagnosis. Fee charged for failure to return defective unit. Availability varies.

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v.3 09/2022

Dell E2423HN 23.8" Monitor

Rain Design mStand Laptop Stand (Space
$40.03

Add to Cart

Lenovo ThinkPad Universal USB Type-C
$195.99

Add to Cart

Pearstone USB Type-C Male to DisplayPort
$29.95

Add to Cart

Logitech MX Keys Wireless Keyboard
$119.99

Add to Cart

Dell E2423HN Specs

Display

Size	23.8"
Screen Area	20.75 x 11.67" / 527.04 x 296.46 mm
Panel Type	VA LCD
Touchscreen	No
Resolution	1920 x 1080
Aspect Ratio	16:9
Pixels Per Inch (ppi)	94 ppi
Finish	Anti-Glare / Matte
Maximum Brightness	250 nits / cd/m^2
Contrast Ratio	3000:1
Refresh Rate	60 Hz
Variable Refresh Technology	*None*
Bit Depth / Color Support	8-Bit (16.7 Million Colors)

Dell E2423HN 23.8" Monitor

Color Gamut	72% CIE1931 83% CIE1976
Response Time	8 ms (GtG) 5 ms (Overdrive)
Viewing Angle (H x V)	178 x 178°
Dot Pitch	0.2745 x 0.2745 mm

Inputs / Outputs

Inputs/Outputs	**1 x** HDMI **1 x** VGA
Built-In Speakers	*None*
Media Card Reader	*None*
Multi-Input Support (PIP/PBP)	*None*
Supported Languages	Brazilian Portuguese English French German Japanese Russian Simplified Chinese Spanish

Power

Power Consumption	16 W (Typical) 25 W (Maximum)
AC Input Power	100 to 240 VAC, 50 / 60 Hz
Power Adapter Type	Internal
USB Power Delivery	*None*

Dell E2423HN 23.8" Monitor

Height Adjustment	*None*
Rotation Adjustment	*None*
Swivel Adjustment	*None*
Tilt Adjustment	-5 to 21°
Max Arm Extension Length	*None*
Mounting-Hole Pattern	100 x 100 mm
Lock Slot	Yes, Kensington
Dimensions (W x H x D)	21.8 x 16.5 x 6.7" / 552.6 x 420.3 x 171.0 mm (with Stand) 21.8 x 13.1 x 2.0" / 552.6 x 331.6 x 49.6 mm (without Stand)
Weight	8.49 lb / 3.85 kg (with Stand) 6.86 lb / 3.11 kg (without Stand)

Packaging Info

Package Weight	11.26 lb
Box Dimensions (LxWxH)	24.3 x 16.5 x 4.6"

See any errors on this page? Let us know

Featured

LG 32BP95E-B 31.5" 4K HDR Monitor

★★★★★ 1

$4,999.00

LG 34BP65C-B 34" 21:9 160 Hz FreeSync Curved...

★★★☆☆ 2

$389.00 ~~$499.00~~

LG 27BN85UN-B 27" 4K HDR Monitor

★★★★★ 1

$349.99 ~~$499.99~~

YOUR RECENTLY VIEWED ITEMS

Browsing History ON Clear History

Cisco CBS350-8FP-2G 8-Port Gigabit PoE+ Compliant Managed Switch with SFP+ (120W)

Add to Cart Add to Cart Add to Cart Add to Cart

Cisco CBS350-8FP-2G-NA Specs

Interfaces

Inputs/Outputs	**8 x** 10/100/1000 Mb/s Gigabit Ethernet (RJ45) PoE+ **2 x** 10/100/1000 Mb/s Gigabit SFP **1 x** Micro-USB

Protocols

Layer Services Supported	Layer 2 Support, Layer 3 Support
Supported Protocols	Head-of-Line (HOL) Blocking IGMP Snooping IPv4 IPv6 Link Aggregation MAC Filtering Port Mirroring RADIUS SNMPv1 SNMPv2c SNMPv3
Queuing	Strict Priority, Weighted Round Robin (WRR)
Jumbo Frames Support	9000 Bytes
MAC Address Table Size	16K
Multicast Groups	2000

Cisco CBS350-8FP-2G 8-Port Gigabit PoE+ Compliant Managed Switch with SFP+ (120W)

Security

Security Features	DoS Attack Prevention RADIUS Authentication Storm Control
Access Control List	1024
IP Interfaces	128
Static Routes	990
SNMP Support	1, 2c, 3

Standards

RFC	RFC 4330
Supported IEEE Standards	802.1ab, 802.1d, 802.1q/p, 802.1s, 802.1w, 802.1x, 802.3, 802.3ab, 802.3ad, 802.3af, 802.3an, 802.3at, 802.3az, 802.3u, 802.3x, 802.3z

Performance

Forwarding Rate	14.88 Mpps
Switching Bandwidth	20 Gb/s
Priority Queues	8
Packet Buffer	1.5 MB

Computer

Flash Memory	256 MB

Cisco CBS350-8FP-2G 8-Port Gigabit PoE+ Compliant Managed Switch with SFP+ (120W)

	Linux **As of November, 2021: Check with manufacturer for the most up-to-date compatibility*

Electrical

Power Draw	148.12 W (Max)
AC Input Power	100 to 240 VAC, 50 / 60 Hz
PoE Power Budget	120 W
PoE per Port	30 W

Environmental

Operating Temperature	23 to 122°F / -5 to 50°C
Operating Humidity	10 to 90%
Storage Temperature	-13 to 158°F / -25 to 70°C
Storage Humidity	10 to 90%

General

Cooling System	Passive
Mean Time Between Failures (MTBF)	698,220 Hours
Indicator Lights	Link/Activity, PoE, Speed, System
Rack Form Factor	1 RU
Dimensions	10.7 x 10.6 x 1.7" / 272 x 268 x 44 mm

Genetec™ Security Center.

Comprehensive unified security

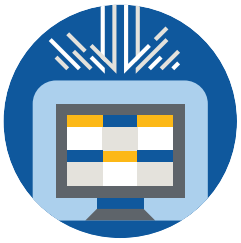
Genetec Security Center is a truly unified platform that blends IP video surveillance, access control, automatic license plate recognition, intrusion detection, and communications within one intuitive and modular solution. By taking advantage of a unified approach to security, your organization becomes more efficient, makes better decisions, and responds to situations and threats with greater confidence.

Genetec™

Security Center benefits

Unified security and operations

Through unification of core security systems such as Omnicast™ video management, Synergis™ access control, and AutoVu™ automatic license plate recognition (ALPR), you achieve greater operational efficiency and heightened awareness of your security environment.



Reliable and cybersecure

Have your system available whenever you need it. While built-in failover and redundancy work to safeguard system access and limit interruptions, advanced security mechanisms (encryption, authentication, authorization) protect privacy by preventing unauthorized access to sensitive data.

A consistent experience

From system configuration and management, to live monitoring, reporting, and mobile access, operators enjoy the same, intuitive user experience across your entire security system. This makes it easier to train new operators as they only need to learn to work on a single platform.

Flexible and scalable

Through its open architecture, you can enhance Security Center with Genetec modules and 3rd party add-ons that suit your business' changing needs. It seamlessly scales to hundreds of sites, and thousands of cameras, doors, intercom devices, and intrusion panels.

Efficient deployment and maintenance

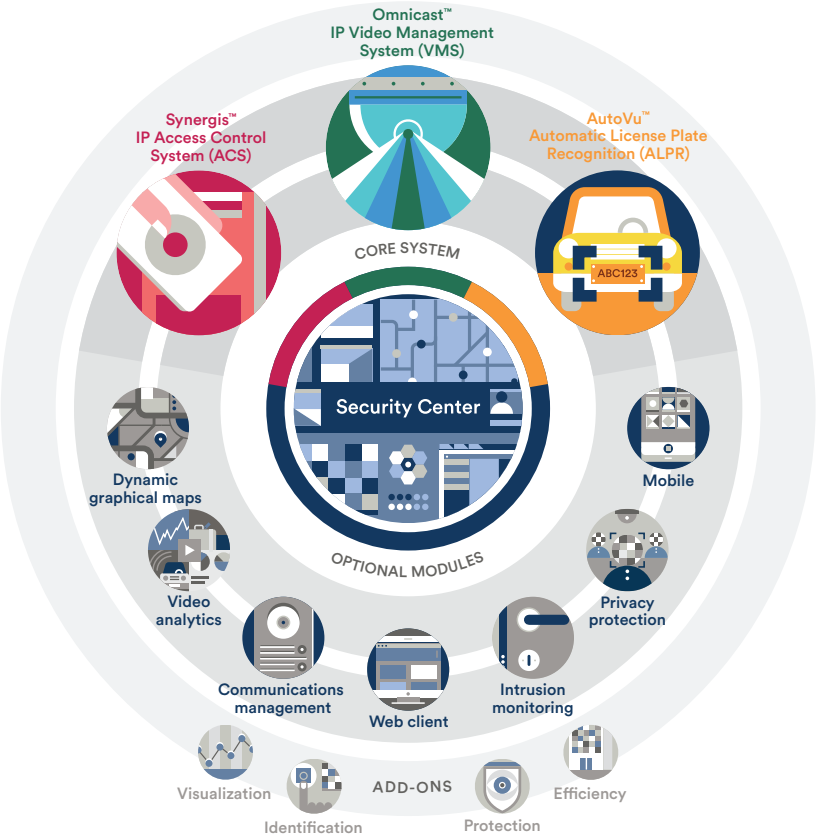
With a unified approach to security management, organizations experience real savings in deployment, maintenance, training, and day-to-day management of security. And, you avoid the compatibility issues typically faced with the integration of multiple independent products.

A clear path to the cloud

Extend the capabilities of your on-premises installation and reduce IT infrastructure costs with our cloud services. With Security Center SaaS edition, cloud archives, automated updates and health monitoring, your organization becomes more agile and less dependent on hardware.

A single platform that evolves with you

At the core of Security Center, you'll find Omnicast, Synergis, and AutoVu, our solutions for video management, access control, and automatic license plate recognition (ALPR). Through an open architecture approach, you further strengthen your security by tapping into a suite of core modules, add-ons, and integrations with third-party security devices and systems. Unification not only provides greater awareness and control, but it also avoids the drawbacks of traditional security systems, such as limited connectivity between applications, compatibility issues, and complicated maintenance.



Security Center core systems

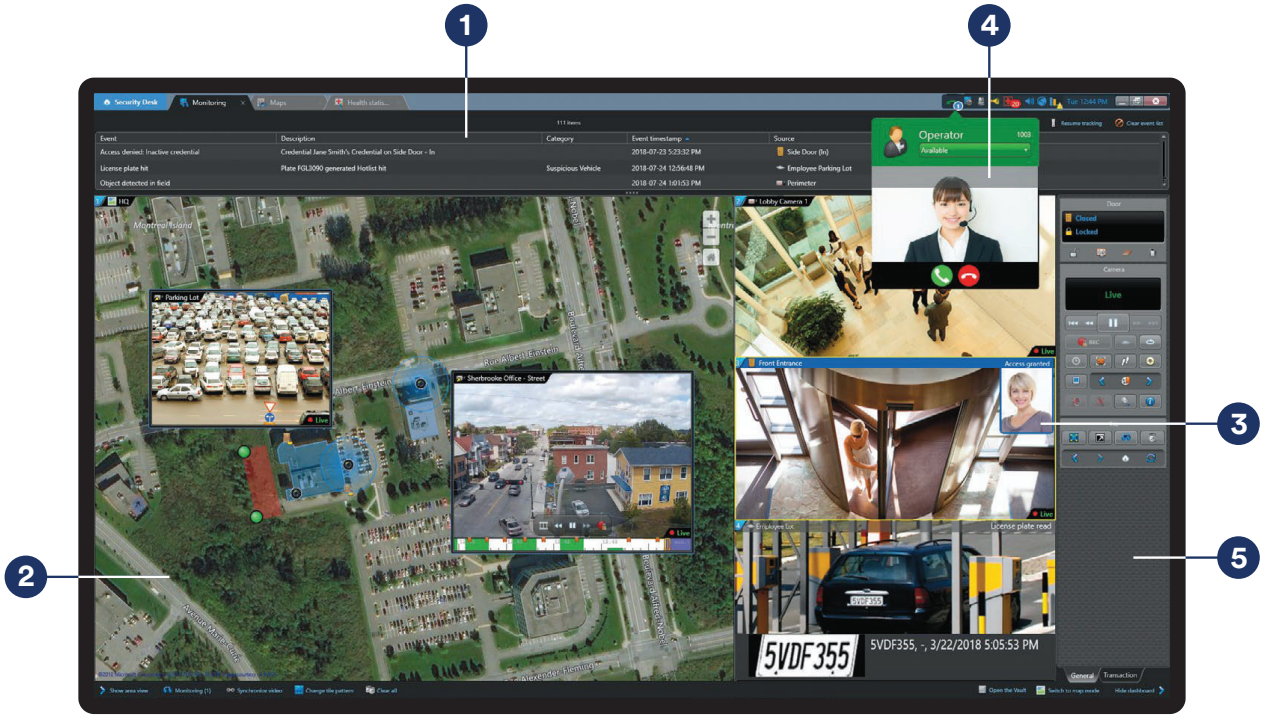
With **Omnicast**, organizations of any size have the ability to deploy a video surveillance system adapted to their needs. Supporting a wide range of IP cameras, it addresses the growing demand for HD video and analytics, all the while protecting individual privacy.

Synergis heightens your organization's physical security and increases your readiness to respond to threats. Supporting an ever-growing portfolio of 3rd party door control hardware and electronic locks, it allows you to leverage your existing investment in network and security equipment.

Deployed in both fixed and mobile installations, **AutoVu** automates license plate reading and identification. It allows you to extend your physical security into your parking lots and perimeter, so you are always aware of vehicles coming in and out of your facilities.

A truly unified operator experience

Unlike integrated systems that simply connect a variety of security applications to share data, Security Center delivers an unparalleled unified operator and user experience. From a single monitoring application at their workstation or in a security operations control room, operators view the entire security environment. And, with information correlated before their eyes, they benefit from greater awareness and operational insights. This improves their decision-making and reaction time, augmenting the safety of your people and organization.



1 Multi-task view

Perform monitoring and reporting tasks in multiple tabs so you can instantly go back to the previous operation at hand.

2 Interactive maps

Monitor your facilities with interactive maps that provide a dynamic view of all security cameras, doors, and alarms, with real-time events and status updates.

3 Live cardholder verification

With all door activities associated with surrounding cameras, you authenticate cardholder identity (picture) against live or recorded video.

4 Embedded call management

Place a video call to another operator, or answer an incoming call from an intercom station, directly in the Security Center interface.

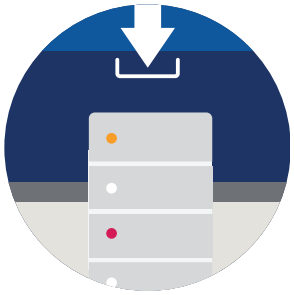
5 Dynamic dashboard

Take action through an adaptive dashboard that automatically displays commands and controls associated with the currently selected camera, door, or area.

Flexible deployment options

There are several options for how and where you deploy Security Center.

How you deploy. At the moment, if you're only looking for a standalone access control or video system, you always have the flexibility to add video, access control, or ALPR capabilities at any time in the future without anything to re-install.



Standalone

Deploy Security Center as a standalone access control, video management, or automatic license plate recognition solution. You can add core capabilities at your own pace, as it only requires a simple licensing change.

Unified

Deploy Security Center as a unified platform and enjoy the benefits of unified security. Get greater situational awareness, enhanced security, and newfound operational efficiency across all your security and operations staff.

Where you deploy. If you're looking to move to the cloud, Security Center SaaS edition supports both Synergis and AutoVu hosted in the cloud. Should you only want to partially transition to the cloud, the solution lets you deploy some or all of your core components on-premises.

Fully hosted

With nothing to deploy, Security Center SaaS Edition is hosted in the cloud* and Genetec takes care of the software infrastructure.

*Omnicast not supported as a hosted version

Hybrid

In a hybrid deployment model, Synergis and/or AutoVu are hosted in the cloud, and connect to an on-premises Omnicast video system.

Security Center key features

Multi-site monitoring & management
Monitor real-time devices and information across all your security applications, and from both local and remote sites, within a single unified interface.

Real-time map-based monitoring
Visualize your security environment with real-time dynamic maps. Navigate your facilities, monitor access control and ALPR events, view live or recorded video, and manage alarms, directly from your maps.

Unified communications management
Extend your security with SIP-based communications. Manage incoming and outgoing calls with intercom devices and collaborate with colleagues through embedded audio and video calls.

Consolidated, dynamic reporting
Streamline your investigations with unified custom reporting that you run across all your security systems and sites. Relying on graphs and dynamic charts, find insights to solve critical situations or simply improve your operations.

Centralized alarm management
Centralize alarm management across all your security systems. Operators view alarms in real-time, respond, and acknowledge them whether they are triggered by the video, ACS, ALPR system, or from a 3rd party integrated solution.

Centralized user management
Implement a seamless SSO experience for your security operators. Security Center integrates with your identity management platform to automatically create and update users and groups.

Failover and redundancy
Count on the availability of your security system, cameras and video recordings, and access to your doors whenever you need them. Built-in failover and redundancy mechanisms protect against hardware failure or network interruptions.

End-to-end data security and privacy
Protect your video and data with secure communications between clients, servers, and edge devices (cameras, door controllers). Security Center encrypts video in transit or at rest, and when exporting evidence.

Health monitoring
Receive real-time notification of system status and health-related events and generate statistics about the health of your system through a dedicated engine to help optimize system performance.

Mobile and web apps
Deploy mobile and web apps to your personnel's devices so they stay connected at all times. View live and recorded video, control PTZ cameras, stream video from mobile devices, review access control events, unlock doors, and manage alarms on the go.

Customizable dashboards
Achieve a comprehensive view into the events happening on your premises and your system. Dashboards combine data, charts, histograms and devices from your entire security environment, and let you build a unique experience tailored to your day to day.

Comprehensive feature list

Unified security platform

- Fully embedded access control, video, and ALPR
- Access to a wide ecosystem of IP devices and partner add-ons
- Unified video analytics and privacy masking
- High availability with built-in failover or 3rd party solutions
- On-premises and cloud-based deployment options
- Connected services (software and firmware updates, health monitoring)

Architecture

- IP-based security platform
- Distributed, client-server, multi-site architecture
- Compatible with 3rd party virtualization solutions
- Software Development Kit (SDK), Web API, and tools
- Embedded health monitoring and reporting engines
- Synchronize users with identity providers through OpenID Connect, SAML 2.0, or Microsoft Active Directory

Core modules

- Real-time map-based monitoring (Plan Manager)
- SIP-based communications (Sipelia™)
- Unified security with intrusion panels
- Unified video analytics and privacy protection (KiwiVision™)
- Thin client for everyday operations (Security Center web client)
- Unified mobile applications for smart devices (Genetec mobile)

User experience and interface

- Single task-based application for monitoring and reporting
- Interactive map-based monitoring that supports geo-located maps, ArcGIS data and custom floor plans
- Dynamic visual reporting with graphs, charts and histograms
- Live dashboards combining reports, charts and live device data

Federation™

- View remote, independent sites as a single system
- Multi-site and -system monitoring & reporting for video, ACS, intrusion, and more
- Global cardholder management (GCM)
- Manage and update remote site settings from the central location
- Run centralized reports across locations
- Consolidated alarm management
- Backward/forward compatibility between sites

Threat level management

- Pre-define organizational threat levels and actions
- Change behavior of system based on active threat level
- Trigger actions across the platform, incl. video and ACS
- Change entire security system or specific areas & doors
- Lock doors, restrict access or go into a full lockdown
- Control PTZ cameras, change recording settings

Plan Manager (Dynamic Maps)

- Real-time monitoring, command, and control on maps
- View doors, cameras, intrusion panels, I/O zones
- Live object and entity state changes
- Real-time event viewing and alarm management
- Operate doors, PTZ cameras, intrusion areas, intercoms
- Connectivity over IP to GIS-based maps and ESRI maps
- Import devices from AutoCAD floorplans
- Vector (PDF) and raster (PNG, JPG), and KML import
- ESRI ArcGIS maps support

Cybersecurity and privacy protection

- Cybersecurity score widget with hardening checklist
- System partitioning to control what users can see
- Extensive set of user-access privileges
- End-to-end data, video, and communications encryption
- Claims-based authentication and Active Directory Federation Services (ADFS) support
- Camera firmware update notifications with firmware vault
- Digital certificate support for Directory
- Password strength meter

Partner add-ons

- Elevator dispatch & building automation
- Perimeter and fence protection, radar, laser systems
- Intrusion systems, gunshot detection
- Parking systems
- Biometrics and 3rd party access control systems
- Video analytics, face recognition, forensics search
- Asset management and tracking, ID scanning

Security Center editions

Ownership model – perpetual or subscription

Choose to own your system through a perpetual license, or begin your move to a subscription-based ownership model by deploying the SaaS edition of Security Center. Bring flexibility to your budget as you lower your upfront costs and only pay for what you use.

Editions	Standard	Pro	Enterprise	SaaS
Security Center (included in base)				
Client connections	5	5	5	5
Web client connections	5	5	5	5
Plan Manager basic	●	●	●	●
Alarm management	●	●	●	●
Advanced reporting	●	●	●	●
System partitioning	●	●	●	●
Entities (cams, readers, federated sites, intercoms)				16
Max. number of cameras	50	250	Unrestricted	●
Max. number of readers	64	256	Unrestricted	●
Security Center optional features				
Max client connections	5	10	Unrestricted	●
Mobile app connections	○	○	○	5 included
Sipelia comms management	○	○	○	○
Intrusion monitoring		○	○	○
Threat levels		○	○	●
Active Directory		○	○	●
Federation-as-a-Service				●
Federation*			○	●
Native archiver & directory failover			○	●

● Included or supported ○ Optional *Federation host must be Enterprise. Federated sites can be Standard, Pro, or Enterprise.

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SECNTTCBR_BR2EN

Security Center Synergis.™

Complete access control

Genetec™

The security behind closed doors

Providing a safe, welcoming working environment is necessary for any organization to flourish. But finding a balance between security and free movement isn't always easy. Too restrictive, and it hampers the flow of people. Too permissive, and your security is compromised.

Security Center Synergis is an access control system that helps you find the right balance. Restrict access to critical or important areas, while allowing seamless movement elsewhere. Benefit from complete visibility of all activity to confidently protect your people and assets. And equip your team to react to threats at a moment's notice – restricting access or locking down an entire building.

Synergis is both flexible and adaptable. It improves on traditional access control models – that require proprietary hardware – by letting you choose your hardware. Through the Genetec Security Center platform, you adopt a unified and comprehensive security strategy where access control is merged with video, communications, intrusion, and other systems. So you enhance collaboration and sharing, improve your operational efficiency, and protect your organization against emerging threats.

With Synergis, you are empowered and properly equipped to protect your organization and address threats.

Respond with confidence

With a global view of your security situation at any given time, you are better equipped to make the right decisions at the right time, and respond with confidence. As soon as a situation arises, quickly take action: notify security personnel, trigger a threat level, or lock down a door or a building. And as you proactively prepare for any scenario, you're never caught off guard.

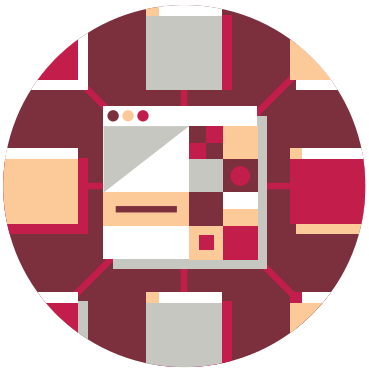
Enhanced cyber security

As the cyber threat landscape evolves, organizations need to protect cardholder and visitor identities, maintain secure communications, and defend other critical data from cyber attacks. With native end-to-end encryption from the reader to Synergis software, and advanced claims-based authentication, you instantly augment security and protect your organization's privacy.

A unified system

Make clear, timely decisions based on a richer understanding of your security environment. When you consolidate access control with video, intrusion, and communications through Security Center, you reach higher levels of awareness and get greater operational efficiency. Not only do you monitor everything through a single pane of glass but you also take action in a direct, coordinated way.

It's a modern access control experience that reduces your total cost of ownership.

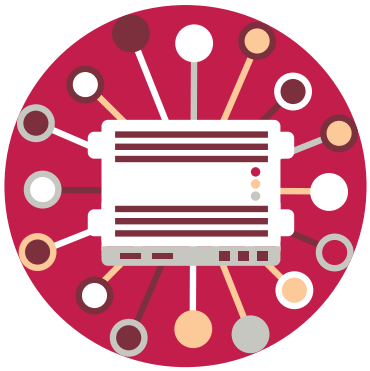


Choose your hardware

Synergis differentiates itself from traditional, proprietary access control. By supporting an ever-growing array of widely deployed access controllers and electronic locks, it gives you newfound flexibility while closely safeguarding the long-term viability of your investments.

Move to a single card approach

When your people travel across your locations, a consistent experience with global cardholder management is key. Centrally manage all your cardholders and credentials, automatically synchronize changes, and move to a single card approach so your colleagues never have to feel like visitors. It will lower costs, and increase operational efficiency as you eliminate redundant activities.



Maintain less infrastructure

Deploy Synergis Cloud Link appliances at all locations as your organization expands across one or more sites. Control the volume of hardware you need, and streamline connectivity, communications, and security. With a scalable and efficient architecture, you immediately benefit from the savings.

Quotes from our customers

Synergis is an established, flexible, market-leading access control system. Here are the words of some of our customers.

“At Canary Wharf Group, we pride ourselves on being at the forefront of technology. When we bring potential clients through our control room, the system provides the wow factor that helps us sell our business district. This system helps us convince our clients how secure they will be here, and how efficient our security team is.”

Canary Wharf Group

“We will never be in the same position as with our older system, where we were restricted to one vendor, locked into their offering – climbing prices and eventually faced with the need to rip-and-replace our old system. We are free to choose the devices that best suit our needs.”

University of Hull

“We started with 12 cameras and a few doors; now we’re closing in on 700 cameras and 500 doors – all connected to our city infrastructure. It’s really impressive to see where we’ve come from, what we can do, and what the future holds for our city. We’ve definitely chosen the right platform as Security Center gives us the flexibility to achieve any objective.”

City of Lakeland

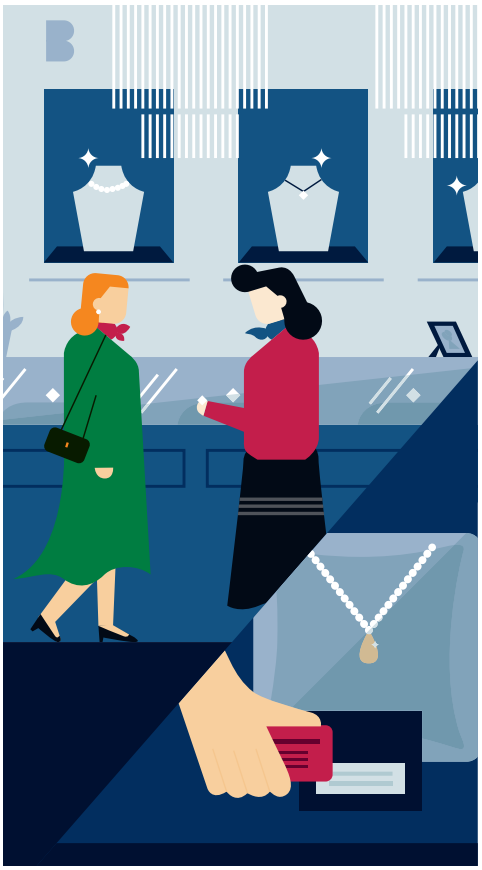
“Setting the door schedules makes our lives so much easier. Our operators still have the flexibility with the Synergis access control system to override certain doors, or make changes when needed, so it remains fluid for our team and operations.”

Levi’s® Stadium

The world of Synergis

With Synergis, organizations of all sizes heighten security and get a better understanding of who is trying to access their buildings. Here's a closer look at who can benefit.

Who are Synergis customers?



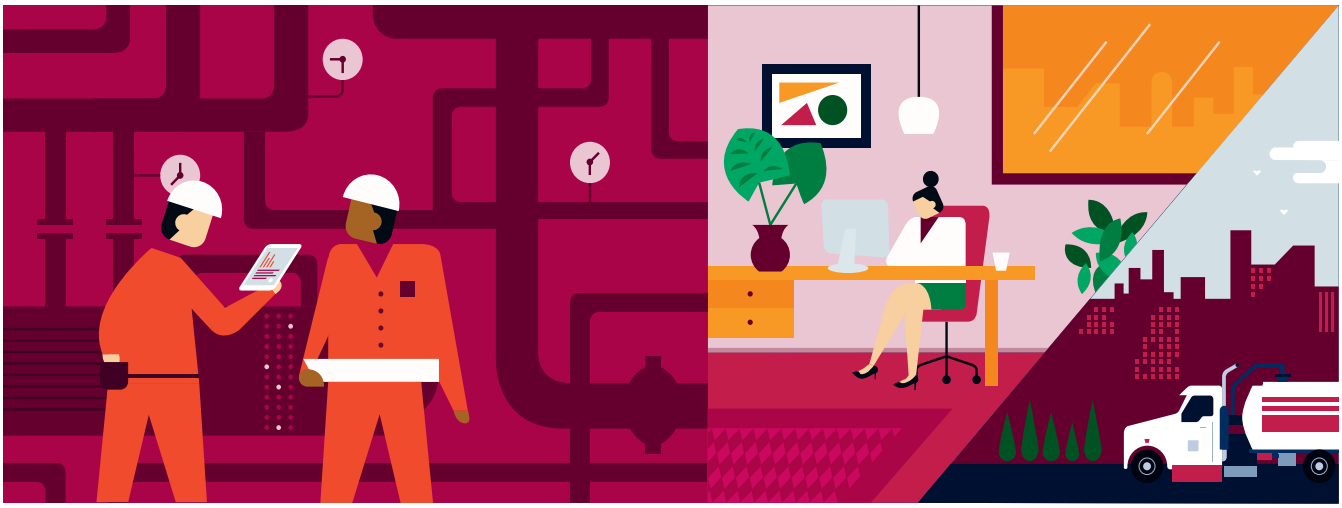
A retail store

Jamie owned a downtown jewelry store. It was a high-security atmosphere where small, precious goods required meticulous protection. Using Synergis, Jamie could give clearance to select staff members so they could open cases. She could also monitor who opened cases in real time and, because she had deployed wireless protection to her jewelry case, she was able to manage locks, handle access decisions, and log events in real time. So, at the end of each day, Jamie saw the whole picture, and understood everything that had happened in her store.

From small retail stores to educational institutions and multi-site businesses, Synergis lets you protect your organization with increased confidence.

A higher education institution

Over the past 20 years, the university grew at an impressive pace. During the daytime the campus was a vibrant place, but over the years security had been overlooked, and many students, faculty, and alumni didn't feel safe at night. Crime was negatively affecting the university's reputation and its enrollment numbers. The Security Director needed to protect the campus without interrupting the everyday flow of people. Using Synergis, students got access cards that they use to get into dorms, pay for meals, and access and check out books from the library. He managed everything discreetly – from day-to-day operations to big events, and even unplanned emergencies.



A multi-site organization

With multiple offices and refinery facilities around the globe, understanding where people were in this energy business was a big challenge. It used access control readers, but they didn't tell the full story about people's attendance, or who was where during an emergency. With so many sites to manage, the ACS maintenance was a burden on corporate IT. By moving to the cloud, they were able to focus on their business as opposed to worrying about their ACS system maintenance. As a welcome bonus, centralized cardholder management and single-card access provided peace of mind and allowed the security team to see who's where, any time.

The unified Genetec experience

Synergis is one of the core systems of Security Center, our comprehensive security platform. Along with video surveillance and automatic license plate recognition (ALPR) – as well as optional Genetec modules and partner add-ons – it forms a unified system that offers enhanced intelligence, security, and operations.

Our core systems

Security Center Omnicast is a video management system that uniquely addresses your organization's video security and privacy needs. Efficiently manage and monitor HD video, and choose from an ever-growing range of industry-leading cameras.

Security Center Synergis is an access control system that lets you manage the flow of people coming into your buildings. It secures your organization, simplifies your operations, and ensures you are not locked into a proprietary solution.

Security Center AutoVu is an automatic license plate recognition system. It makes it easier for commercial and municipal organizations to enforce parking, optimize traffic flow, and identify and track vehicles of interest.

Our optional modules

Plan Manager offers interactive and graphical mapping, allowing you to visualize and manage security environments. Dynamically navigate through facilities and oversee a greater number of cameras and doors. It provides complete and real-time coverage for both small and large multi-site environments.

Sipelia Communications Management enables SIP-based communications between operators and intercom devices. When unified in Security Center, intercom communications are linked to your security applications, significantly improving your security team's awareness and facilitating collaboration.

Security Center Mobile gives you remote access to Security Center through a suite of mobile apps. View live or recorded video, control remote cameras, and review access control events and system alarms.

Security Center Web Client allows you to take control of your security system from anywhere you can use a web browser. Monitor cameras, search for and review access control events and system alarms, export video, and manage cardholders and visitors.

Our built-in key features

Security Center Federation provides centralized monitoring, reporting, and alarm management across multiple remote sites and locations, streamlining your global security.

Global Cardholder Management lets you easily synchronize cardholders across different locations. You issue one card that accesses across multiple sites, reducing cost and effort at the same time.

Intrusion Panel Integration allows you to monitor intrusion status and alarms alongside video and access control, as well as eliminate false alarms and associated costs.

Failover offers continuous server access that can tolerate hardware failures without any system interruption.

Threat Level Management lets you quickly change the behavior of your system in response to changing security conditions.

Cloud Archives gives you the capacity to store video recordings in the cloud.

Active Directory Integration synchronizes Windows accounts with Security Center administrator and cardholder accounts, so you save valuable time and eliminate human error.

SDK Integration Tools allow you to augment Security Center by integrating new devices, capabilities, and custom functionality.

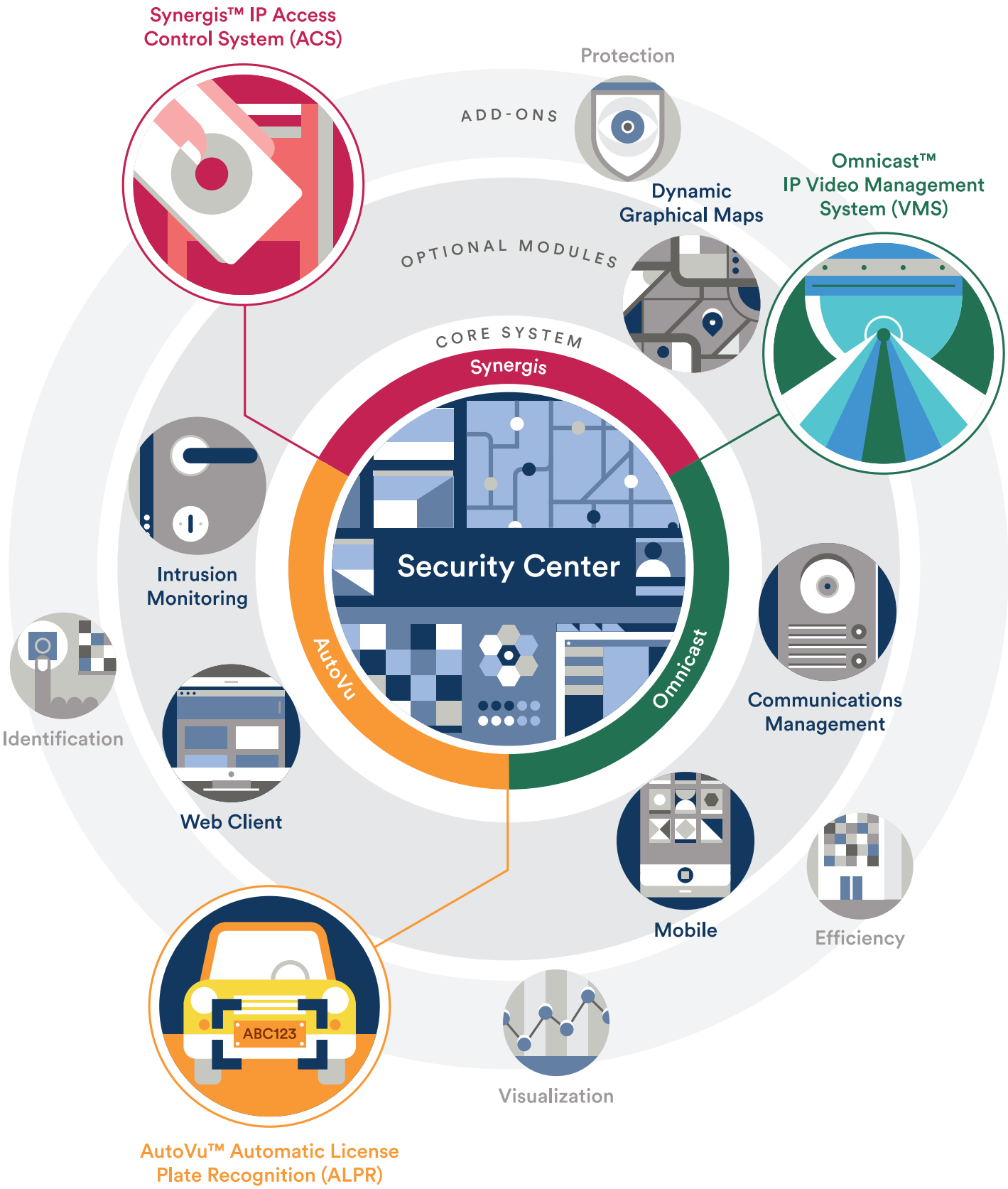
Our partner add-ons

Visualization: *video walls, dashboards, AutoCAD.*
Get an intelligent, structured view of your security environment. See the big picture with video walls that display more video, images, and data. And, with seamless integration with Security Center, overall situational awareness is enhanced.

Identification: *face recognition, biometrics, ID scanning.*
When an access card isn't enough, control entry with seamless, non-intrusive, and secure biometric credentials. Identify people through facial recognition technology and use multi-factor authentication to increase security.

Protection: *intrusion, gunshot and perimeter detection, asset management.*
Make use of various sensors to improve your monitoring and decision making. Integrate video and audio analytics to automate detection and benefit from smarter forensics investigations. And augment physical security with video analytics to protect your perimeter, while ensuring personal privacy.

Efficiency: *building automation, parking systems, destination management.*
Integrate building automation and intelligent parking systems to Security Center. Manage all elevator traffic from your security platform, giving you more control and visibility of building activity.


Synergis™ IP Access Control System (ACS)
Protection
ADD-ONS
Dynamic Graphical Maps
Omnicast™ IP Video Management System (VMS)
OPTIONAL MODULES
CORE SYSTEM
Synergis
Security Center
AutoVu
Omnicast
Intrusion Monitoring
Identification
Web Client
Communications Management
Mobile
Efficiency
Visualization
ABC123
AutoVu™ Automatic License Plate Recognition (ALPR)

A safe, more secure environment

From smaller sites to large, multi-site organizations, Synergis is an intuitive and adaptable access control solution that can be tailored to your needs. It helps you manage the flow of access to your site – whether it's a high-security campus or an institution where free movement is paramount. And because Synergis integrates a growing and versatile selection of hardware from leading manufacturers, you can install the systems that work best for your organization.

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Security Center Synergis takes access control beyond door protection, allowing you to improve security, and safeguard the flow of your people – so they can go about their days unimpeded.

genetec.com/synergis

Synergis Cloud Link

Complete access control

Synergis™ Cloud Link is an intelligent PoE-enabled IoT gateway engineered to provide greater flexibility and security. Designed to address longstanding customer demand for non-proprietary access control solutions, Synergis Cloud Link provides native support of widely deployed, and non-proprietary security modules from intelligent controllers such as Mercury Security, HID Global and Axis communications, electronic locks from ASSA ABLOY, Allegion, SimonVoss, just to name a few.

When modernizing an existing installation, Synergis Cloud Link's open architecture allows you to leverage your current access control infrastructure and upgrade to a secure IP-based solution. Built with secure boot and an embedded EAL 6+ secure module, this IoT gateway provides highly-secure communication over your network using TLS 1.3 and certificates for authentication. The device can support up to 256 readers and electronic locks, as well as monitor hundreds of zones and alarms.

Synergis Cloud Link shown

Key features

- IoT gateway
- Ease of maintenance
- EAL 6+ Secure Element
- Encrypted communications with host software
- Two (2) Gigabit Ethernet ports (1 port is PoE)
- Offline decision-making capabilities
- 600,000 cardholders and 150,000 offline events
- Embedded threat level management
- Peer-to-Peer Communication*
- Hard, soft and global antipassback
- First-Person-In and Two-Person Rules
- Visitor Escort
- Four embedded RS-485 ports
- OSDP Secure Channel Supported

Synergis software

Synergis Cloud Link connects seamlessly to Synergis, the IP access control system from Genetec that provides real-time monitoring of events and alarms, advanced cardholder and visitor management, and comprehensive reporting. Key Synergis features include:

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

Unification with other core Genetec security modules ensures a holistic view of your security environment.

Peer-to-Peer Communication enables innovative global antipassback and global IO linking across appliances while remaining independent of the ACS server*.

Threat Level Management that greatly simplifies your response to potential threats; operators have the power to quickly restrict access to specific areas based on the threat level.

* Available with Security Center 5.11

A cloud-ready gateway

As technology evolves and cloud adoption in the security industry accelerates, both on-premises and cloud-enabled access control will converge. Your current access control hardware may not be cloud-ready, but Synergis Cloud Link is.

The IoT gateway links your existing on-premises hardware like controllers, modules, and electronic locks to the cloud, reliably and securely.

Supported hardware

Choose from a growing ecosystem of hardware solutions:

Benefits

Cloud-ready
With authenticated communications between your hardware and the cloud, Synergis Cloud Link provides a safe way to a truly open architecture.

Cost-efficient
Save time and money by reducing the need for off-the-shelf servers and all the costs and resources needed to maintain them.

Reliable
Intelligence to the edge even during network or server outage. This ensures that your people and assets are always safe.

Scalable
With up to 256 locks and readers per Synergis Cloud Link, you can scale your system as needed. Deploy additional units to further expand your system.

Hardware specifications

Processor	Quad core, 64-bit CPU
System memory	4 GB RAM
	16 GB flash storage
Communications	Two (2) 10/100/1000 Mbps Gigabit Ethernet ports
	Four embedded RS-485 ports
	Secure element: EAL6+
Electrical	9-16VDC or PoE (IEEE 802.3af or 802.3at type 1) on one (1) Ethernet port
Mechanical	Appliance dimensions (L x W x H): 7.24 × 4.48 × 1.39 inches (18.4 × 11.4 × 3.5 cm)
	Appliance weight: 1 lb 1 oz (475 g)
Environment	Temperature: 32°F to 122°F (0°C to 50°C) operational
	Relative humidity: Operating 5% to 95%, non-condensing
	For indoor use only

Warranty	24 months
Certifications	CE approval, RoHS compliant, FCC Class A, UL294*
Downstream device support	32 HID VertX downstream modules over RS-485 (across four ports)
	32 Mercury Security LP panels (up to 256 readers)
	30 AXIS A1601 network door controllers
	128 ASSA ABLOY IP locks (PoE or WiFi)
	64 ASSA ABLOY Aperio-enabled wireless locks (both RS-485 and IP hubs are supported)
	200 Allegion Schlage NDE, LE and Control locks[1]
	256 Allegion Schlage AD-Series, NDE and LE locks[2]
	256 SimonsVoss SmartIntego locks

* Available July 2022
[1] Via Synergis Cloud Link
[2] Via a Mercury LP or EP intelligent controller

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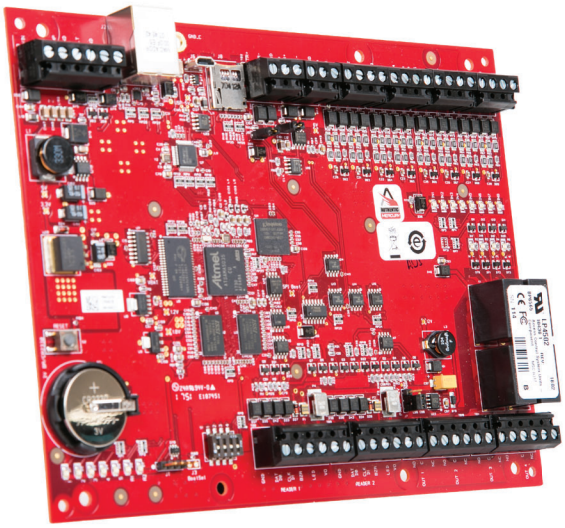
UPDATED:07-JUN-22

HID Mercury Security LP4502

Intelligent Controller (4 readers, 8 inputs, 4 outputs)

Seamlessly integrated with Genetec Security Center Synergis

Security Center Synergis™ system 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 LP4502 controller has direct hardware support for two doors and can scale up to 64 readers. It comes with two RS-485 communication ports. Supporting a range of wired and wireless reader technology, the LP4502 is managed by the Synergis Cloud Link gateway appliance.



HID Mercury Security LP4502 Intelligent Controller

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 LP4502 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

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

Inputs:
8 general purpose: programmable circuit type

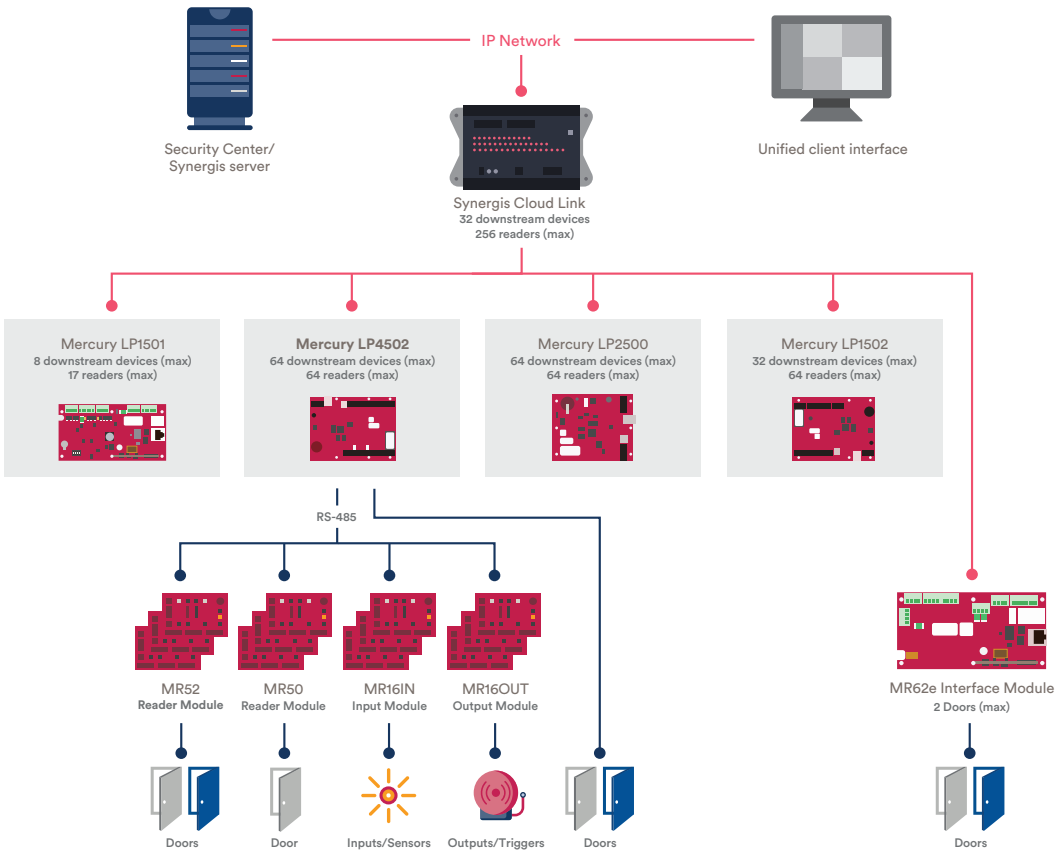
Outputs:
4 relays: Form C, NO 5 Amp 30 Vdc, NC 3 Amp 30 Vdc

Hardware specifications

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

Architecture

Connected to the Synergis Cloud Link appliance over IP, the HID Mercury Security LP4502 intelligent controller processes real-time commands and reports all activities upstream.



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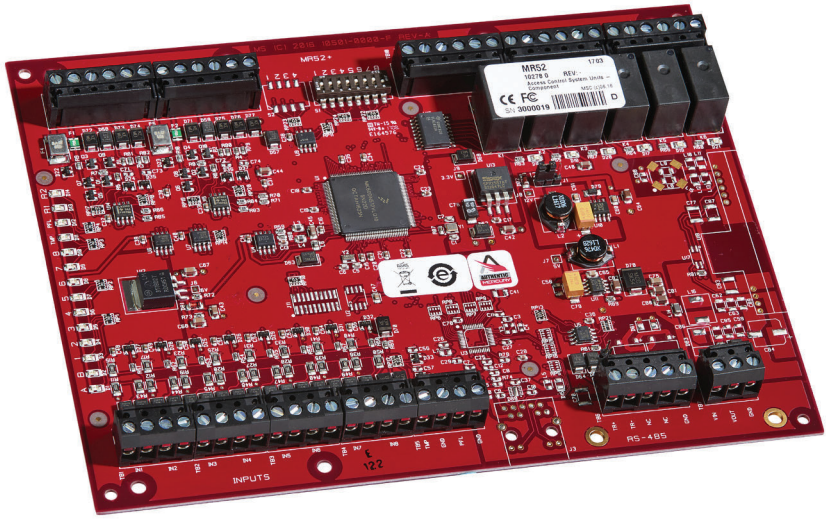
MR50_PSIEN

HID Mercury Security MR52 Interface Module

Reader and IO interface module for up to 2 doors

Seamlessly integrated with Genetec Security Center Synergis

Security Center Synergis™ system 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 MR52 reader interface module controls up to two doors. Supporting a range of wired and wireless reader technology, the MR52 is managed by a HID Mercury Security EP/LP1501, EP/LP1502, EP/LP2500 and EP/LP4502 controller through a high-speed RS-485 network and ultimately, the Synergis Cloud Link gateway appliance over IP.



HID Mercury Security MR52 Interface Module

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 MR52 Reader Interface Module connected to any HID Mercury Intelligent Controller over RS-485.

Overview

- Connects to the HID Mercury Security controllers over high-speed RS-485 network
- Reports all activity in real-time to Synergis Cloud Link and HID Mercury Security controllers
- Manages up to 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, up to 2 readers (entry and exit) each when connected to OSDP readers.

Inputs:
8 general purpose: programmable circuit type
2 dedicated for Tamper and Power Monitor

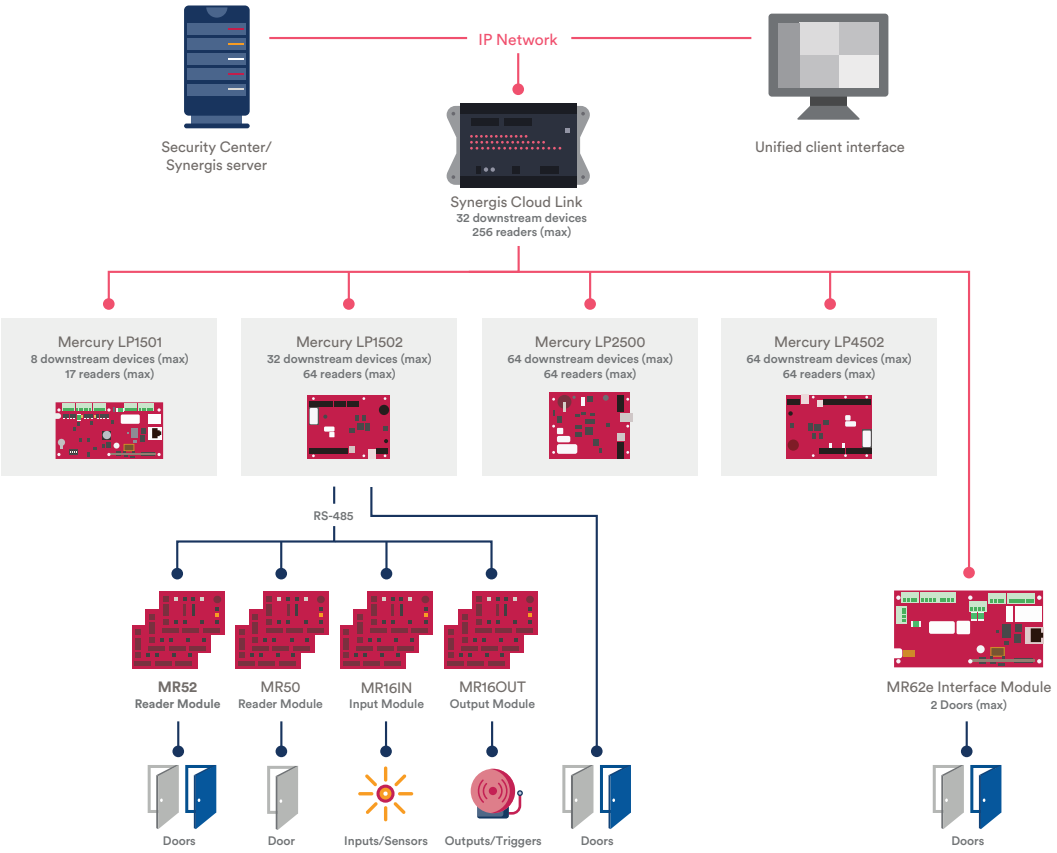
Outputs:
6 relays: Form C, 5 Amp 30 Vdc

Hardware specifications

Dimensions	6.0 in × 8.0 in × 1.0 in (152 mm × 203 mm × 25 mm)	**Certifications**	UL 294 Recognized, CE Compliant, RoHS
Temperature	0°C to 70°C operational, -55°C to 85°C storage		
Communications Ports	RS–485, 2-wire, 4,000’	**Warranty**	24-month warranty. Please refer to Genetec Sales Policy for more information

Architecture

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



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Power Management Systems

Mercury | HID 4 / 8 / 16 Reader

Genetec™

Powered by LifeSafety Power®

Power Management Systems

Mercury | HID 4 / 8 / 16 Reader

Installation and service efficiencies

- One AC drop reduces installation costs
- Removable back plate simplifies controller wiring and minimizes installation time and labor costs
- Deep enclosures accommodate large battery sets

Pre-wired power section

- 120VAC and 230VAC models available for quick installation
- Polarized AC harness offers safe disconnect

Custom-designed backplate

- Removable aluminum backplate mounts accommodate unique requirements
- Multiple controllers in single and dual voltage, and with standard and network configurations suit any application

Power monitoring and reporting

power supplies • batteries • locks
ac mains • site event logs and reporting

LifeSafety Power OutSmart™ technology

- Dual-color output LEDs verify voltage throughout system

Key benefits and applications

Seamless design
Mechanical integration of power, locks, Synergis™ Cloud Link and Mercury or HID controllers into one innovative unified system streamlines any deployment.

Labor efficiencies
Single enclosure, one AC drop, removable back plates, and a flexible mix-and-match mounting pattern cuts installation time significantly.

Innovative power architecture
Unique dual-buss structure distributes 12 and 24VDC to all accessory modules so the system and lock power are available on a user-selected basis.

Remote power management
LSP integration allows Security Center to generate custom events for power faults, low battery, compromised locks, required system service, and more.

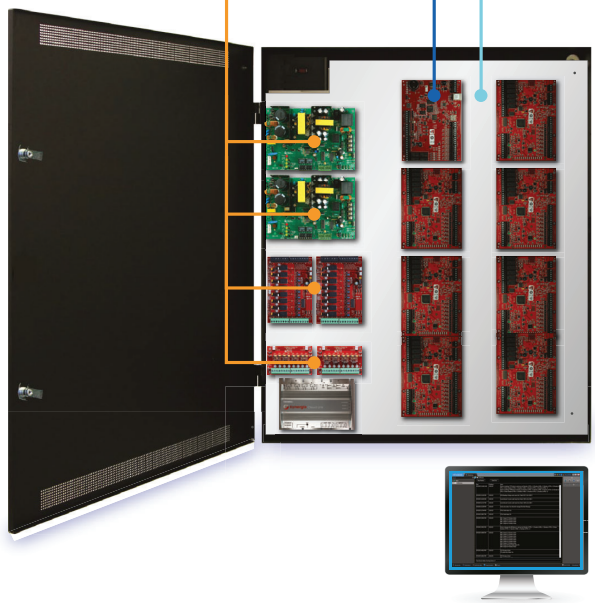
Genetec power systems are UL/ULC listed flexible mix and match enclosure configuration

Genetec part number guide - Mercury

SY– DV 16RD – E8M2 – NET -WPX -E

DV	16RD	E8M2	NET	-WPX	-E
VOLTAGE	READER COUNT	ENCLOSURE	NETWORKED	WIRE MGMT	230VAC

W - Wired
P - Panduit
X = A 1502/MR52 wiring
C all MR52 wiring
G Cloud Link/1502/MR52 wiring



DUAL VOLTAGE (DV)

4RD	12V/2A and 24V/2A, 8 auxiliary and 4 lock outputs
8RD	12V/4A and 24V/4A, 8 auxiliary and 8 lock outputs
16RD	12V/12A and 24V/10A, 16 auxiliary and 16 lock outputs

SINGLE VOLTAGE (SV)

4RD	12V/6A, 8 auxiliary outputs
8RD	12V/6A, 8 auxiliary outputs
16RD	12V/12A, 16 auxiliary outputs

MERCURY ENCLOSURES

E2VM	20 X 16 X 4.5 (4 reader/SV)
E4VM	24 X 20 X 6.5 (8 reader/SV)
E2M	20 X 16 X 4.5 (4 reader/DV)
E4M	24 X 20 X 6.5 (8 reader/DV)
E4M1	24 X 20 X 6.5 (8 reader/DV door mount)
E8M2	36 X 30 X 6.5 (16 reader)

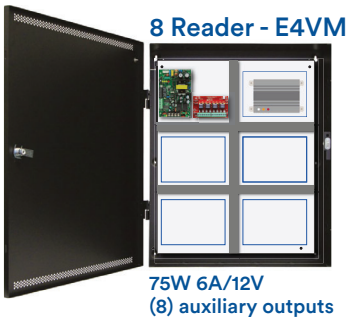
SECURITY CENTER SDK INTEGRATION

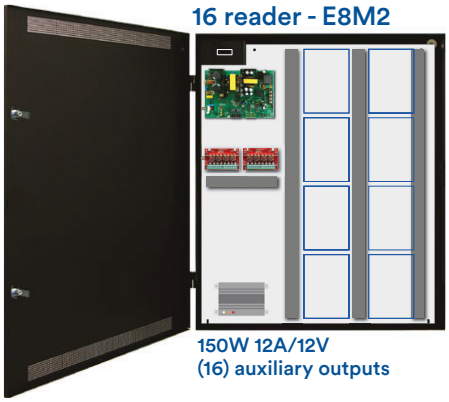
PART NUMBER: GSC-1SDK-LSP-NETLINK

Single-voltage Mercury power systems

All single-voltage models come standard with pre-installed Panduit duct. For a managed or ProWire® model, select a dual-voltage system.

Configuration	Genetec	12VDC	ENCL HxWxD	Outputs	Backplate mounting guide
(4) Reader	SY-SV4RD-E2VM-P	6A	20 × 16 × 4.5	8 auxiliary	(2) MERCURY and Synergis™ Cloud Link
(8) Reader	SY-SV8RD-E4VM-P	6A	24 × 20 × 6.5	8 auxiliary	(4) MERCURY and Synergis™ Cloud Link
(16) Reader	SY-SV16RD-E8M2-P	12A	36 × 30 × 6.5	16 auxiliary	(8) MERCURY and Synergis™ Cloud Link





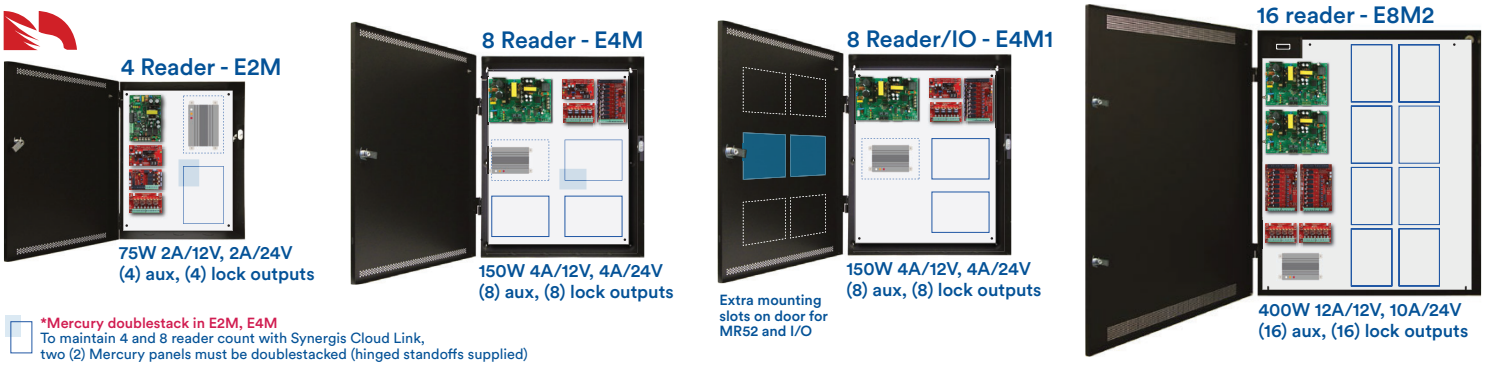
For 230VAC pn add "-E" suffix to back of Genetec part number

Dual-voltage Mercury power systems

Dual-voltage models have three (3) configuration options: standard, standard with Panduit, and ProWire® factory pre-wired with Panduit.

	Unmanaged models	Managed models
4-READER	12V/2A and 24V/2A • 8 auxiliary and 4 lock outputs • 20 × 16 × 4.5 E2M enclosure • Two (2) mounting slots*	
Standard	SY-DV4RD-E2M	SY-DV4RD-E2M-NET
Panduit	SY-DV4RD-E2M-P	SY-DV4RD-E2M-NET-P
ProWire	SY-DV4RD-E2M-WPA	SY-DV4RD-E2M-NET-WPA
8-READER	12V/4A and 24V/4A • 8 auxiliary and 8 lock outputs • 24 × 20 × 6.5 E4M enclosure • Four (4) mounting slots*	
Standard	SY-DV8RD-E4M	SY-DV8RD-E4M-NET
Panduit	SY-DV8RD-E4M-P	SY-DV8RD-E4M-NET-P
ProWire	SY-DV8RD-E4M-WPA	SY-DV8RD-E4M-NET-WPA
8-READER+IO	12V/4A and 24V/4A • 8 auxiliary and 8 lock outputs • 24 × 20 × 6.5 E4M1 enclosure • Fits (4) MERC, Cloud Link & IO	
Standard	SY-DV8RD-E4M1	SY-DV8RD-E4M1-NET
Panduit	SY-DV8RD-E4M1-P	SY-DV8RD-E4M1-NET-P
ProWire	SY-DV8RD-E4M1-WPA	SY-DV8RD-E4M1-NET-WPA
16 READER	12V/12A and 24V/10A • 16 auxiliary and 16 lock outputs • 36 × 30 × 6.5 E8M2 enclosure • Fits (8) MERC & Cloud Link	
Standard	SY-DV16RD-E8M2	SY-DV16RD-E8M2-NET
Panduit	SY-DV16RD-E8M2-P	SY-DV16RD-E8M2-NET-P
ProWire	SY-DV16RD-E8M2-WPA	SY-DV16RD-E8M2-NET-WPA

ProWire models listed are A-style wiring (LP1502/4502 + MR52). For C-style wiring (all MR52's), change WPA suffix to"C", i.e., SY-DV16RD-E8M2-WPC. For G-style wiring (Cloud Link/LP1502/MR52), change WPA suffix to "G", i.e., SY-DV16RD-E8M2-WPG.



*Mercury doublestack in E2M, E4M
To maintain 4 and 8 reader count with Synergis Cloud Link, two (2) Mercury panels must be doublestacked (hinged standoffs supplied)

For 230VAC pn add "-E" suffix to back of Genetec part number

Genetec part number guide - HID

SY – DV 16RD – E8V – NET -WTA -E

DV	16RD	E8V	NET	-WTA	-E
VOLTAGE	READER COUNT	ENCLOSURE	NETWORKED	WIRE MGMT	230VAC

W - Wired
T - Tie Wrap
X = A Vx00 wiring
G Cloud Link/Vx00 wiring

DUAL VOLTAGE (DV)

4RD	12V/2A and 24V/2A, 8 auxiliary and 4 lock outputs
8RD	12V/4A and 24V/4A, 8 auxiliary and 8 lock outputs
16RD	12V/12A and 24V/10A, 16 auxiliary and 16 lock outputs

SINGLE VOLTAGE (SV)

4RD	12V/6A, 8 auxiliary outputs
8RD	12V/6A, 8 auxiliary outputs
16RD	12V/12A, 16 auxiliary outputs

HID ENCLOSURES

E2VM	20 X 16 X 4.5 (4 reader/SV)
E4VM	24 X 20 X 6.5 (8 reader/SV)
E2V	20 X 16 X 4.5 (4 reader/DV)
E4V	24 X 20 X 6.5 (8 reader/DV)
E4V1	24 X 20 X 6.5 (8 reader/DV door mount)
E8V	36 X 30 X 6.5 (16 reader)

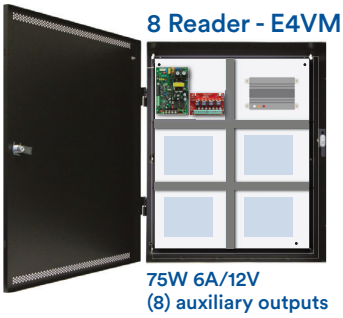
SECURITY CENTER SDK INTEGRATION

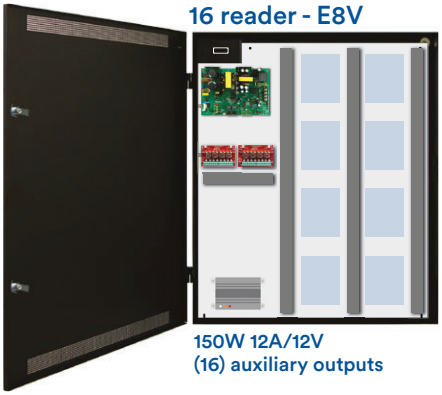
PART NUMBER: GSC-1SDK-LSP-NETLINK

Single-voltage HID power systems

All single-voltage models come standard with pre-installed Panduit duct. For a managed or ProWire® model, select a dual-voltage system.

Configuration	Genetec	12VDC	ENCL HxWxD	Outputs	Backplate mounting guide
(4) Reader	SY-SV4RD-E2VM-P	6A	20 × 16 × 4.5	8 auxiliary	(2) VERTX and Synergis™ Cloud Link
(8) Reader	SY-SV8RD-E4VM-P	6A	24 × 20 × 6.5	8 auxiliary	(4) VERTX and Synergis™ Cloud Link
(16) Reader	SY-SV16RD-E8V-P	12A	36 × 30 × 6.5	16 auxiliary	(8) VERTX and Synergis™ Cloud Link





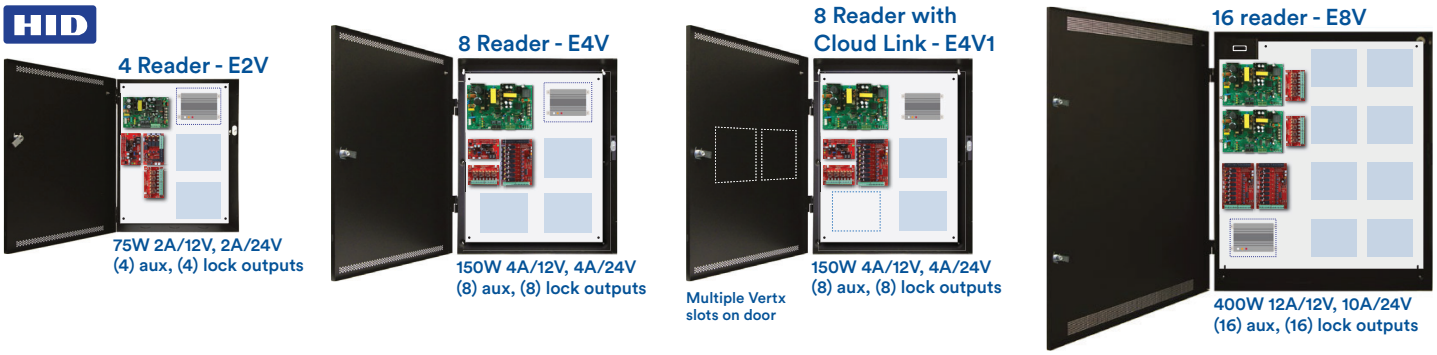
For 230VAC pn add "-E" suffix to back of Genetec part number

Dual-voltage HID power systems

Dual-voltage models have two (2) configuration options: standard and ProWire® factory pre-wired (tie wrap only).

	Unmanaged models	Managed models
4-READER	12V/2A and 24V/2A • 8 auxiliary and 4 lock outputs • 20 × 16 × 4.5 E2V enclosure • Fits (2) VERTX & Cloud Link	
Standard	SY-DV4RD-E2V	SY-DV4RD-E2V-NET
ProWire	SY-DV4RD-E2V-WTA	SY-DV4RD-E2V-NET-WTA
8-READER	12V/4A and 24V/4A • 8 auxiliary and 8 lock outputs • 24 × 20 × 6.5 E4V enclosure • Four (4) mounting slots*	
Standard	SY-DV8RD-E4V	SY-DV8RD-E4V-NET
ProWire	SY-DV8RD-E4V-WTA	SY-DV8RD-E4V-NET-WTA
8-READER+Cloud Link	12V/4A and 24V/4A • 8 auxiliary and 8 lock outputs • 24 × 20 × 6.5 E4V1 enclosure • Fits (4) VERTX, Cloud Link	
Standard	SY-DV8RD-E4V1	SY-DV8RD-E4V1-NET
ProWire	SY-DV8RD-E4V1-WTA	SY-DV8RD-E4V1-NET-WTA
16-READER	12V/12A and 24V/10A • 16 auxiliary and 16 lock outputs • 36 × 30 × 6.5 E8V enclosure • Fits (8) VERTX & Cloud Link	
Standard	SY-DV16RD-E8V	SY-DV16RD-E8V-NET
ProWire	SY-DV16RD-E8V-WTA	SY-DV16RD-E8V-NET-WTA

ProWire models listed are “A” style wiring (Vx00 wiring). For “G” wiring (Cloud Link/Vx00 wiring), change WTA suffix to “G” SY-DV16RD-E8V-WTG.

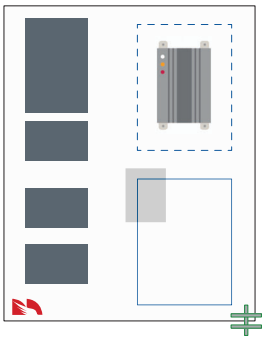


For 230VAC pn add “-E” suffix to back of Genetec part number

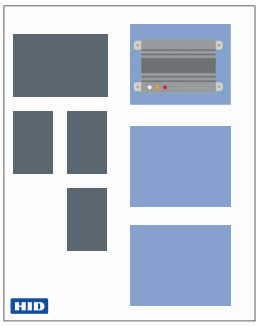
4 | 8 reader enclosure backplate pattern guide

Mercury | HID dual-voltage enclosures

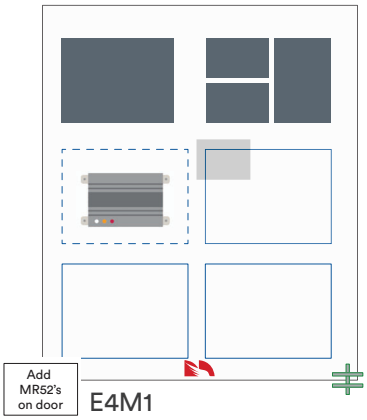
E2M



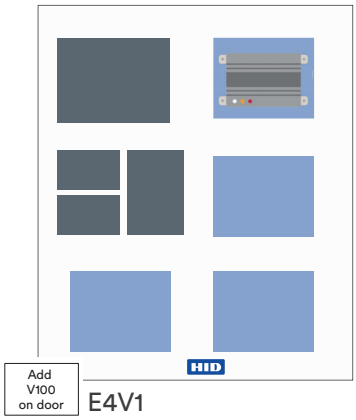
E2V



E4M



E4V



Notes on Mercury E2M, E4M enclosures

When Cloud Link is installed, doublestacking (2) Mercury boards is required to keep full 4/8 reader count.

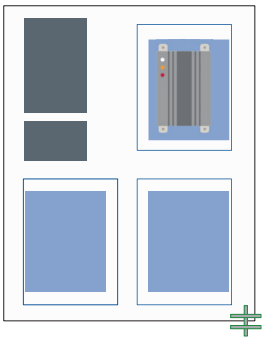
Hinged standoff mounting hardware included for that purpose.

Optional Panduit installation is available for Mercury configurations only.

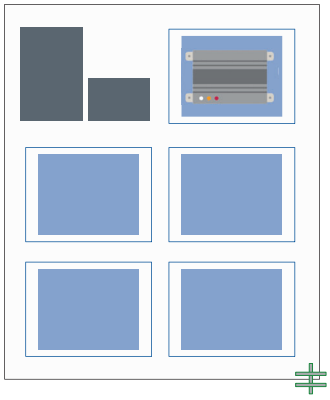
SY-DV8RD-E4M-NET-WPA

Mercury | HID single-voltage enclosures

E2VM



E4VM



4 reader

SY-SVRD-E2VM-P*

8 reader

SY-SVRD-E4VM-P*

*Because of the dual-pattern E2VM/E4VM backplate, both Mercury and HID 2RD/4RD single voltage models share the same part number.

Pre-installed Panduit is standard in both models.

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UPDATED:SEPT-16-20

Streamvault SV-1000E

Turnkey security appliance

The Streamvault™ SV-1000E appliance is a cost-effective rackmount solution designed for mid-sized security systems. It helps you move to a unified security system combining video surveillance, access control, automatic license plate recognition, communications, intrusion and analytics in a single appliance.

Guaranteed performance

- up to **300 Mbps** total throughput
- up to **2000** readers
- up to **75** ALPR cameras
- up to **60 TB** storage

Key features

- Turnkey appliance with Genetec™ Security Center pre-installed
- Video enterprise-grade SATA storage with RAID 5 configuration
- iDRAC9 Basic for local and remote server management
- Machine learning endpoint protection
- 3-year hardware warranty with Keep Your Drive and Genetec Assurance with next business day on-site service

Benefits

Get up and running faster – The SV-1000E appliance accelerates new system deployment. With Security Center pre-loaded and guaranteed performance, you can move to unified security faster.

Protect your security system – Streamvault appliances help you build a resilient security system that protects your data and operations. Our cyber security experts stay vigilant on evolving threats and help identify and address new vulnerabilities promptly.

Simplified maintenance – The SV-1000E is delivered with built-in tools to monitor system health and simplify updates. It reduces service calls and makes it easy to take full advantage of the latest Security Center capabilities.

Applications

Retail

The SV-1000E lets you unify your video surveillance with point-of-sale systems, and provides a standardized turnkey solution for repeatable deployment across locations.

Education

Combine video surveillance, access control and intercoms in a single device with the SV-1000E. And with Security Center Mobile pre-loaded, you can access your cameras from anywhere.

Corporate security

Monitor entries and exits and review video surveillance videos from the same interface. The SV-1000E is the perfect security appliance for office environments, allowing you to efficiently protect staff, visitors and assets.

Technical specifications

OS
Windows Server Standard 2019 LTSC

Processor
SV-1030E-R3:
1x Intel® Xeon® E-2334
Passmark: 13,189

Memory
16 GB DDR4 (2 × 8 GB DDR4)

Ethernet
SV-1030E-R3: 2x 1GbE RJ45

Peripherals
SV-1030E-R3: 1x USB 2.0 + 2x USB 3.0

Video output
SV-1030E-R3: 1x VGA

Integrated Dell Remote Access Controller iDRAC 9 basic

Performance
Recording throughput: 250 Mbps
Redirection throughput: 40 Mbps
Playback throughput: 10 Mbps

Mechanical and environmental

Operating temperature
50°F to 95°F (10°C to 35°C)

Operating humidity
5 - 90% (non-condensing)

Compliance standards
Regulatory IEC 60950-1, European Norm EN 60950-1, CISPR 22/CISPR 24, EN55022/55024

Cybersecurity

Endpoint protection
BlackBerry Protect machine learning antivirus

Hardened image
200+ security settings changed by default

Maintenance
Verified Windows updates
Connected services for Genetec software and device firmware updates

Storage

Drive type
Hot-swap 3.5” SATA drives

OS drive
SV-1030E-R3:
1x 480GB SSD

Available drive sizes
4TB, 8TB, 12TB, 16TB, 20TB SATA

RAID controller
SV-1030E-R3:
PERC H730P (2GB NV Cache)

Data RAID level
RAID 5; RAID 6 & 10 available as options

Maximum data storage
120 TB (raw); 90.9 TB (usable)

Warranty and support

Hardware warranty
3-year warranty with Keep Your Drive and Genetec Assurance with next business day on-site service

Security Center support
Current and two previous versions (N-2)

Models

Model	Form factor	Bays	Dimensions (W x D x H)	Max weight	Power (100-240v)
SV-1030E-R3	1U	4 (3 archive drives)	19” × 23.98” × 1.7” (482mm × 609mm × 43mm)	26.89 lb (12.2 kg)	1x 450W

*Hardware specifications are subject to change. Units provided will be equivalent or superior to what is shown in this document.

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UPDT-JAN2022