

niagara access™

PRODUCT DEFINITION

Niagara Access™ is a powerful access control solution supporting the latest innovations in physical and access security and enabling access control interoperability within Niagara Framework®. The Niagara Access solution encompasses the door control modules supported in the previous Niagara Enterprise Security solution (R2R and RIO) as well as select hardware from popular brands.

Niagara Access leverages Z9Flex—an open framework by Z9 Security—to support multiple third-party brands such as Armatura Global Solutions and Azure Access Technology. The supported access control hardware platforms are OSDP-verified, which means they have been tested to the popular Security Industry Association (SIA) Open Supervised Device Protocol standard for interoperability. This makes them a great choice for access control installations that require advanced security or will be used in government and other high-security settings. The supported third-party hardware are TCP/IP smart controllers with field-upgradeable firmware, allowing your system to stay current with the latest features and security enhancements.

With Niagara Access, you can achieve a unified platform that integrates access control into a Niagara Framework®-based building management system (BMS).

key features

▶ Advanced Access Control:

- Role-based user management
- Threat-level advanced zone and Intrusion zone management
- Custom graphics and map creation
- Alarm escalation
- Custom reports
- Web client user interface
- Elevator floor control and more.

▶ Choice of Hardware: Select from multiple OSDP-verified access control brands

▶ OSDP and Wiegand Protocols:

Ensures communication and compatibility with multi-class card readers with most low-frequency (125 KHz) and high-frequency (13.56 MHz) card formats

▶ Native Badge Design & Printing:

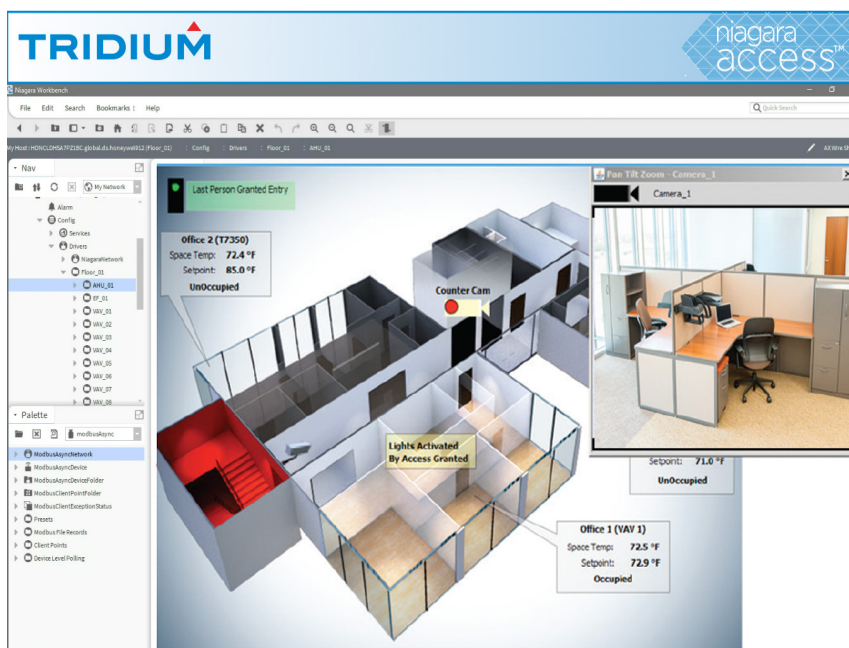
Create and design of card templates and badges including import of photos—all via web browser.

▶ LDAP Database Integration:

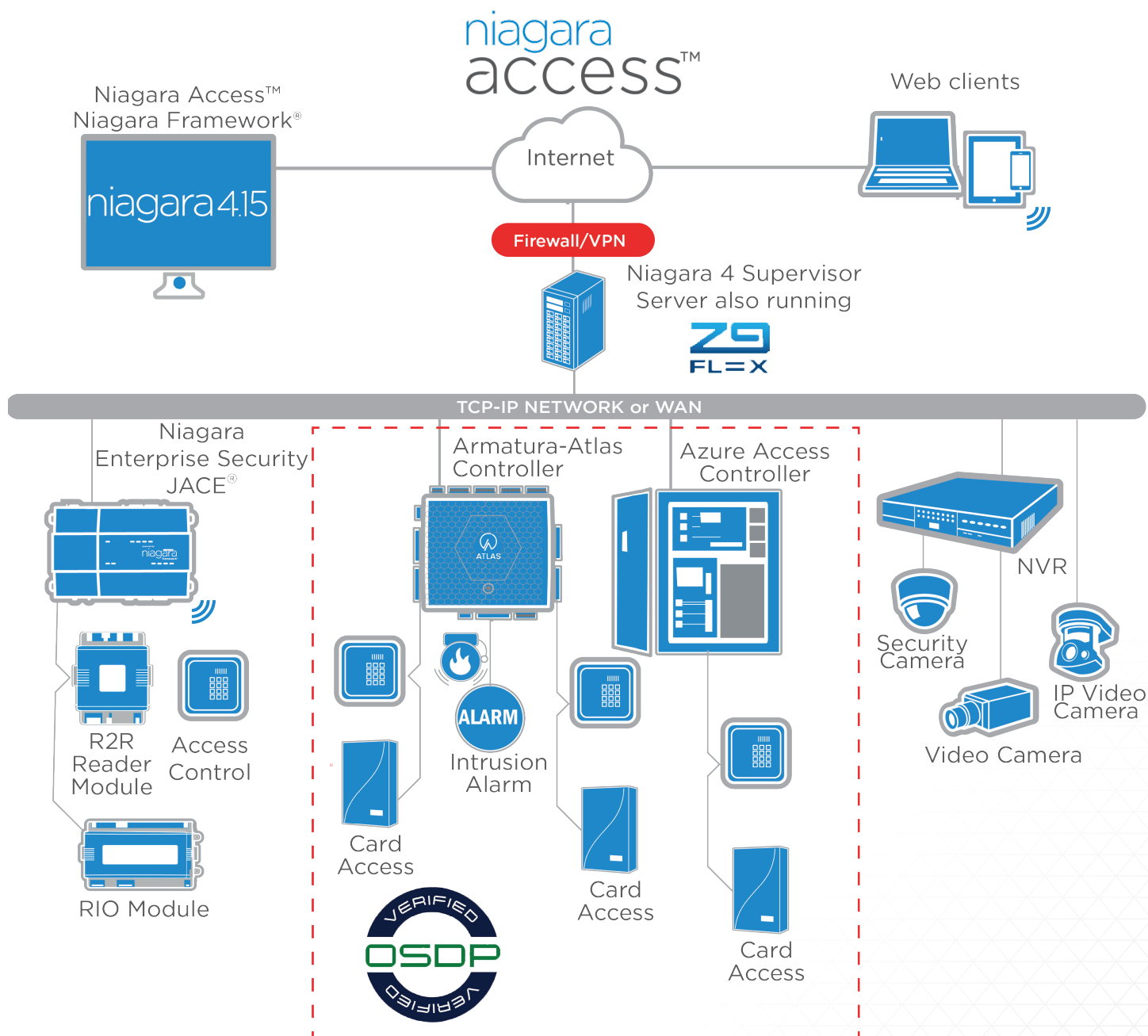
Synchronize physical and logical access and manage from a single point of entry.

▶ Video System Integration: View and control cameras from the same console as other building functions. Select associated video from the alarm console, or pop-up video when alarms occur.

▶ Scalability: Scalable from 1 to 1000 doors.



SUPPORTED HARDWARE PLATFORMS & DEPLOYMENT ARCHITECTURE



Niagara Access supports* the Remote Reader (R2R) and Remote IO (RIO) modules introduced with Tridium's previous access control application, Niagara Enterprise Security. These modules are compatible with most standard Wiegand readers

* End of Hardware Support date for these modules is July 2028.

Niagara Access also supports Z9Flex by Z9 Security, as well as OSDP-Verified hardware from Armatura and Azure Access Technology. These TCP/IP smart controllers provide multiple options, PoE, Onboard-IO, connectivity via Ethernet and WiFi, and support for multi-class card readers that are compatible with OSDP and Wiegand communication protocols.

Niagara Video enables the viewing of live and recorded video footage directly from the Niagara Alarm Console. Built-in drivers ease integration with digital video recorders, IP cameras, network video recorders and other devices. Bring video surveillance and access security data into your BMS, along with lighting, energy management, and HVAC-R data for a unified user experience.

REMOTE READER (R2R) AND REMOTE IO (RIO) MODULES

R2R modules provide an interface for two typical access controlled doors and support two Wiegand reader ports compatible with most standard Wiegand proximity readers. This hardware from the Niagara Enterprise Security line also provides four supervised inputs for monitoring the status of doors and requests to exit, as well as two form-C relay outputs for controlling door locks. Two additional non-supervised inputs are provided for monitoring the status of the enclosure door or power supply.

RIO modules provide eight supervised inputs for monitoring dry contacts from security devices, such as motion sensors, glass break detectors, door and window status switches, and other critical building alarms. Eight form-C relay outputs may be used for controlling alarm-indicating devices, elevator-floor control devices, alarm dialers, door locks and other building equipment. Two additional non-supervised inputs are provided for monitoring enclosure door status or power supply status.

The R2R and RIO modules are connected to a JACE® embedded controller platform to remotely control and monitor security and access control devices. Using a standard RS-485 multi-drop communication bus. The modules can be located up to 4,000 feet from the JACE.

Note: These modules are supported on JACE-9000 with N4.14 and later versions.

HARDWARE SPECIFICATIONS

	R2R	RIO
Supply Voltage	12-15 VDC, .07 A	12-15 VDC, .4 A
Supervised Digital Inputs	four	eight
Form-C Relay Outputs	two 3A @ 24 V	eight 3A @ 24 V
Digital Inputs	two	two
Wiegand Card Reader Ports	two	
RS-485 Communication Port	one	one
Operating Temperature Range	0° to 50°C (32°F to 122°F)	0° to 50°C (32°F to 122°F)
Storage Temperature Range	0° to 60°C (32°F to 140°F)	0° to 60°C (32°F to 140°F)
Relative Humidity Range (Noncondensing DIN rail or surface mount)	5% to 95%	5% to 95%

key advantages

- ▶ User interface for access control is unified with other building systems under Niagara Framework supervisory control —HVAC-R, power, lighting and more
- ▶ BACnet® server for integration with almost any building automation system
- ▶ Same JACE hardware platform can be used for both building automation and security
- ▶ Centralized data management
- ▶ Integrated video surveillance



Remote Reader (R2R)



Remote IO Module

AGENCY CERTIFICATIONS

- FCC Part 15 Class A
- CE
- UL 294
- RoHS

3RD-PARTY OSDP-VERIFIED HARDWARE

Niagara Access™ supports integration with multiple OSDP-verified access control hardware from Altura Global Solutions and Azure Access Technology. The supported hardware selection are all TCP/IP smart controllers that provide multiple options including:

- ▶ Power over Ethernet (PoE)
- ▶ Onboard-IO
- ▶ Connectivity via Ethernet and WiFi
- ▶ Support for multi class card readers that are compatible with OSDP and Wiegand communication protocols.
- ▶ Scalability is managed by adding controllers to the network. Each brand of controller has capacity to scale from 1 to 1000 doors.

CONTROL PANELS FROM ARMATURA GLOBAL SOLUTIONS

ATLAS BIO SERIES

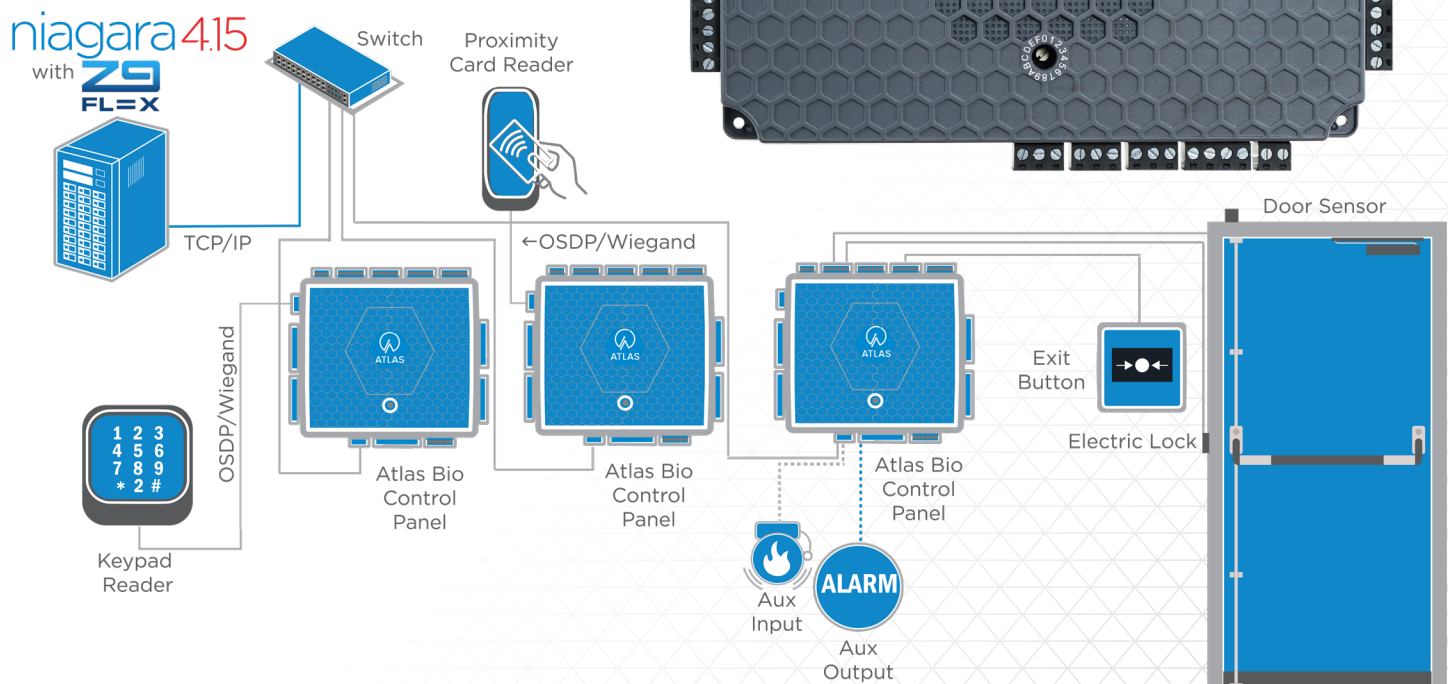
The Niagara Access™ line of control hardware includes the Atlas Bio controller from Armatura Global Solutions. These control panels can be ordered with options for one-door, two-door, or four-door configuration. Every Atlas Bio control panel provides user-programmable auxiliary relays to support the control of lights, alarms, annunciators, intrusion detection panels, additional locking devices, or any other external electrical device which can be controlled via switch.

AGENCY CERTIFICATIONS

- FCC Part 15 Class A
- CE
- ETL
- RoHS



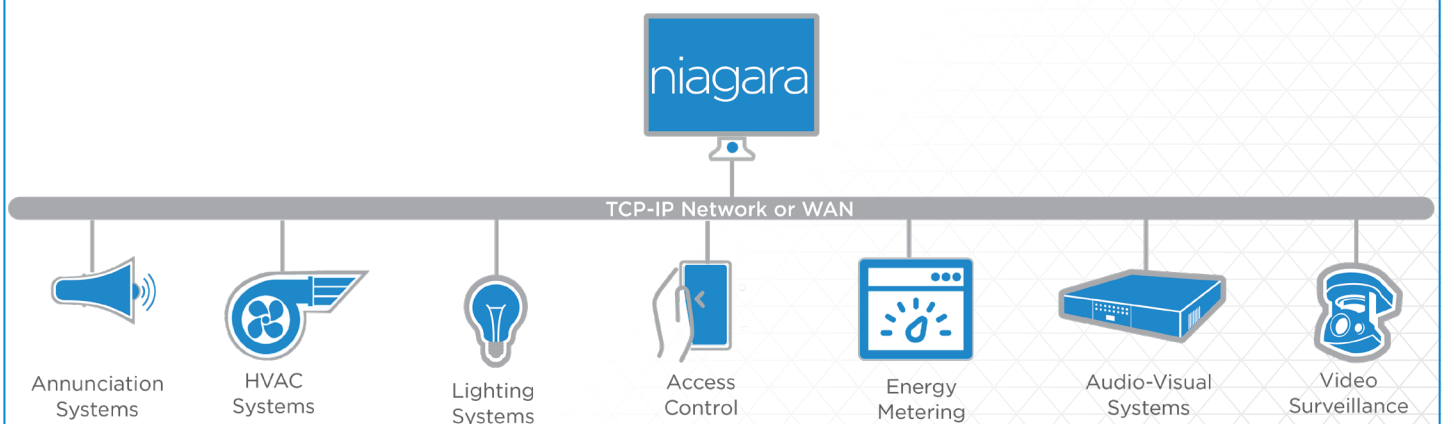
Armatura
Global Solutions



ARMATURA HARDWARE SPECIFICATIONS

	Atlas-160	Atlas-260	Atlas-460
DOORS CONTROLLED	ONE DOOR	TWO DOORS	FOUR DOORS
Number of Readers Supported	2 (Wiegand or OSDP) Readers	4 (Wiegand or OSDP) Readers	8 (Wiegand or OSDP) Readers
Reader Types Supported	125 kHz and 13.5MHz Wiegand and OSDP Readers	125 kHz and 13.5MHz Wiegand and OSDP Readers	125 kHz and 13.5MHz Wiegand and OSDP Readers
Number of Inputs	4 (Exit Device, Door Contact and 2 Aux)	6 (2 Exit Devices, 2 Door Contacts and 2 Aux)	10 (4 Exit Devices, 4 Door Contacts and 2 Aux)
Number of Outputs	2 (1 Form-C Relay for lock and 1 Form-C Relay for Aux Output)	3 (2 Form-C Relays for locks and 1 Form-C Relay for Aux Output)	5 (4 Form-C Relays for locks and 1 Form-C Relay for Aux Output)
Communication	TCP/IP, Wi-Fi, Wiegand, OSDP	TCP/IP, Wi-Fi, Wiegand, OSDP	TCP/IP, Wi-Fi, Wiegand, OSDP
Recommended Power Supply	12V DC, 3A (PoE)	12V DC, 3A (PoE)	12V DC, 3A (PoE)
Mounting	Wall Mount	Wall Mount	Wall Mount
Weight	9 lbs (3.8 kg)	10 lbs (4.2 kg)	10 lbs (4.2 kg)
Dimensions (Board Only)	6.3 in. X 4.17 in. (160 mm X 106 mm)	7.75in. X 6.73in. (197mm X 171mm)	7.75in. X 6.73in. (197mm X 171mm)
Operating Temperature	32-113 °F (0-45 °C)	32-113 °F (0-45 °C)	32-113 °F (0-45 °C)
Operating Humidity	20% to 80%	20% to 80%	20% to 80%

BUILDING SYSTEMS INTEGRATION



The full potential of open-protocol integration with Niagara Framework® includes bringing access control, HVAC and refrigeration, lighting and video surveillance into one central console, making a full spectrum of new comfort and energy efficiency measures possible.

CONTROL PANELS FROM AZURE ACCESS TECHNOLOGY

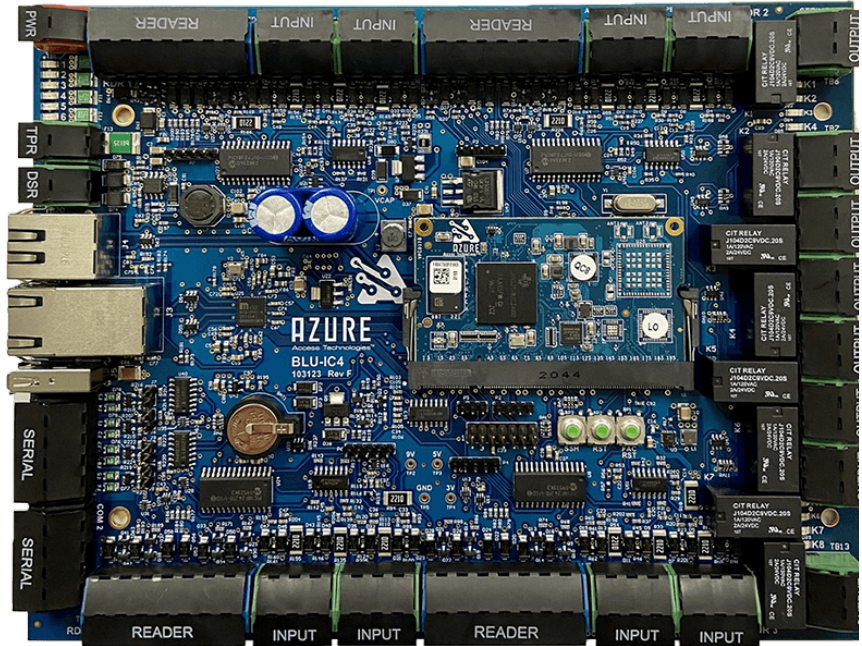


BLU-IC SERIES

The Niagara Access™ line of control hardware includes BLU-IC controllers from Azure Access Technology. This series includes two-door and four-door controllers. These high-speed network controllers provide onboard connectivity for two and four access points using Wiegand or OSDP readers. Each controller model communicates securely over dedicated 10/100 Ethernet ports via a TLS 1.3 connection. They can be ordered with a Power over Ethernet (PoE+) option.

AGENCY CERTIFICATIONS

- FCC
- CE
- OSDP
- Z9 OPEN



AZURE ACCESS HARDWARE SPECIFICATIONS

	Azure BLU-IC2	Azure BLU-IC4
DOORS CONTROLLED	TWO DOORS	FOUR DOORS
Number of Readers Supported	2 (Wiegand or OSDP) Readers	4 (Wiegand or OSDP) Readers
Reader Types Supported	125 kHz and 13.5MHz Wiegand and OSDP Readers	125 kHz and 13.5MHz Wiegand and OSDP Readers
Number of Inputs	8 Supervised or Unsupervised Inputs plus 2 Unsupervised Inputs (for Cabinet Tamper and Power Failure)	16 Supervised or Unsupervised Inputs plus 1 Unsupervised Input (for Cabinet Tamper and Power Failure)
Number of Outputs	4 Form-C Relay Outputs	8 Form-C Relay Outputs
Communication	TCP/IP, Wiegand, OSDP	TCP/IP, Wiegand, OSDP
Recommended Power Supply	12-24V DC, 350mA, PoE+	12-24V DC, 350mA, PoE+
Weight	0.6 lbs (272g)	0.8 lbs (363g)
Dimensions (Board Only)	8 in (203.2mm) x 5.5 in (139.7mm) x 0.88in (22.35mm)	8 in (203.2mm) x 6 in (152.4mm) x 1in (25.4mm)
Operating Temperature	-40 °C to +85°C	-40 °C to +85°C

NIAGARA VIDEO

Tridium's Niagara Video is an open video framework that enhances safety and security through unified, facility-wide video management. It is designed to make it easy to integrate video data streams into Niagara Framework® including output from digital video recorders, IP cameras, network video recorders and other devices that come from diverse manufacturers and that communicate via a mix of standard protocols. With this Niagara-integrated solution, you can take any of the following actions:

- ▶ View live and recorded video of an event directly from the Niagara Alarm Console
- ▶ Overlay data on video feeds to provide a live view of operating systems
- ▶ Deploy video pop-ups to alert system operators when abnormal activity occurs
- ▶ Set up video display schemes
- ▶ Use the Photo ID Viewer to compare archived photos with live video feeds to provide visual verification for high security areas.

The video model supports a bi-directional alarming interface allowing event-driven communication between video devices and Niagara-based applications. The integrated alarm monitoring and video recall console allows system administrators to immediately review and assess video associated with alarm conditions. Niagara video integration provides a “single pane of glass” view, enhancing situational awareness of activities in facilities.

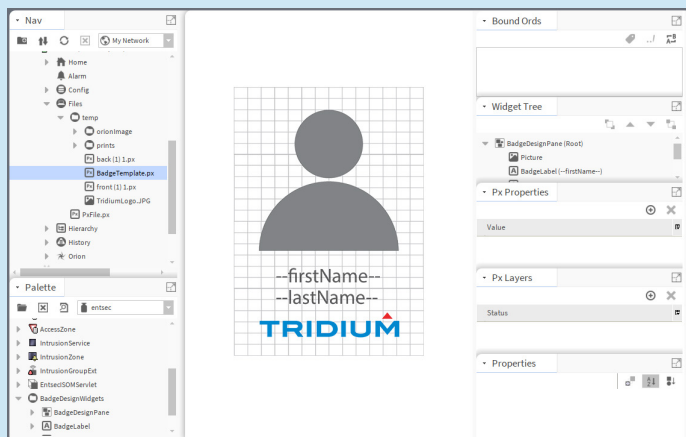
Milestone Xprotect® Video, Axis® Camera and Maxpro® VMS drivers are available.. See ORDERING INFORMATION section for more.

key features

- Bi-directional alarming interface between Niagara stations and video products
- Niagara alarms can initiate events in video subsystem
 - Automatically redirect camera and start video recording
 - Create video system alarm record and associate recorded video change resolution and frame rate
- Video system events such as video motion detection and camera loss alarms processed as standard Niagara alarms
 - Video alarms available in Niagara alarm console with available hyperlink to event video
 - Initiate control logic sequences such as lighting control, building lockdown, etc.
- Ability to view live video through Niagara UI
- Supports pan, tilt, zoom, iris, and focus camera control
- Query video subsystem for stored video and playback by time and date
- Integrated video playback and live view with Niagara alarm console
- Customizable user experience through extensive video widget library (PX pages)
- Video alarm pop-up directs attention to situations in your facility immediately.

NATIVE BADGE DESIGN & PRINT

As of Niagara Framework version 4.15, users can create and design card templates in Niagara Workbench for user badges compatible with Niagara Access™ card readers. This Niagara-native Badge Design feature supports the import of photos and the printing of customized badges from Niagara Access™ Supervisor and via web browser.



ORDERING INFORMATION

TRIDIUM HARDWARE ORDERING

Remote Reader	
SEC-R2R	Security module for 2 Readers/Access doors and 2 digital inputs
Remote IO Module	
SEC-RIO	Security module with 8 supervised inputs, 8 relay outputs and 2 digital inputs

Enclosure	
SEC-ENC-LNP	Enclosure with DIN rail, tamper switch, key lock, and capacity for user provided SLA batteries. Enclosure includes 2 DIN rails for additional module expansion. Configurable options include Security JACE®, 4 reader modules or 2 remote I/O modules. Note: Power Supply is not included. Dimensions: 17" W x 22" H x 4" D. Manufactured in the USA.
SEC-ENC-SML	Small enclosure with DIN rail, tamper switch and key lock. Single 2 reader module only option available for this enclosure. Dimensions: 6" W x 9" H x 4" D. Manufactured in the USA.

ARMATURA-ATLAS HARDWARE ORDERING

Atlas Bio One-Door Controller	
TR-ATLAS-160	1-Door IP Controller with Atlas-Pro License*
Atlas Bio Two-Door Controller	
TR-ATLAS-260	2-Door IP Controller with Atlas-Pro License*
Atlas Bio Four-Door Controller	
TR-ATLAS-460	4-Door IP Controller with Atlas-Pro License*

* Please note all the ATLAS controllers require "Atlas-Pro License" to be compatible with Niagara Access and Z9/op=n. The "Atlas-Pro License" must be requested/purchased with the hardware controller.

AZURE ACCESS TECHNOLOGY HARDWARE ORDERING

BLU-IC Two-Door Controller	
BLU-IC2	2-Door IP Controller with Z9 SDK License*
BLU-IC Four-Door Controller	
BLU-IC4	4-Door IP Controller with Z9 SDK License*

* Please note all BLU-IC controllers require "Z9 SDK License" to be compatible with Niagara Access and Z9/op=n. The "Z9 SDK License" must be requested/purchased with the hardware controller.

SOFTWARE LICENSE ORDERING TO SUPPORT NIAGARA ACCESS WITH 3RD-PARTY HARDWARE

Niagara Access Supervisor Application	
NAC-SUP-16	Niagara Access Application for Supervisor-16 Readers. Compatible with N4.15 and later. Niagara Supervisor License must be ordered separately.
NAC-SUP-32	Niagara Access Application for Supervisor-32 readers, Compatible with N4.15 and later. Niagara Supervisor license must be ordered separately.
Niagara Access - Additional Reader Packs	
NAC-R-16	16 Reader Pack
NAC-R-64	64 Reader Pack
Niagara Access - Supervisor Badge Design and Printing	
NAC-PHOTOID	Native badge design and printing application for Niagara Access Supervisor. Compatible with N4.15 and later
Niagara Access - Supervisor Database Integration	
DR-S-LDAP	Provides interface to integrate the Niagara Enterprise Security Supervisor card holder database to Active Directory/LDAP. Custom configuration of LDAP/Active Directory Database may be required.

ORDERING INFORMATION

SOFTWARE LICENSE ORDERING TO SUPPORT NIAGARA ACCESS WITH VIDEO

Niagara Access Video Options	
DR-S-AXIS-16	Axis® 16 camera driver
DR-S-AXIS-32	Axis® 32 camera driver
DR-S-AXIS-64	Axis® camera driver
DR-S-AXIS-128	Axis® 128 camera driver
DR-S-MAXP-16	Maxpro® 16 camera driver
DR-S-MAXP-32	Maxpro® 32 camera driver
DR-S-MAXP-64	Maxpro® 64 camera driver
DR-S-MAXP-128	Maxpro® 128 camera driver
DR-S-MLS-16	Milestone Xprotect® Professional/+ or Corporate 16 camera driver
DR-S-MLS-32	Milestone Xprotect® Professional/+ or Corporate 32 camera driver
DR-S-MLS-64	Milestone Xprotect® Professional/+ or Corporate 64 camera driver
DR-S-MLS-128	Milestone Xprotect® Professional/+ or Corporate 128 camera driver

SOFTWARE LICENSE ORDERING TO SUPPORT NIAGARA ENTERPRISE SECURITY WITH TRIDIUM HARDWARE

Niagara Enterprise Security - Supervisor Application	
SEC-SUP-32	Enterprise Security Application for Supervisor - 32 Readers. Compatible with N4.6 and later. Niagara Supervisor license must be ordered separately
Niagara Enterprise Security - Supervisor Additional Reader Packs	
SEC-R-16	16 Reader Pack
SEC-R-64	64 Reader Pack
SEC-R-256	256 Reader Pack
SEC-R-1024	1024 Reader Pack
Niagara Enterprise Security - JACE Application	
SEC-J8-32	Enterprise Security Application on JACE 8000 Model - 32 Readers. Compatible with N4.6 and later. (Not included in capacity). Does not include JACE controller.
SEC-J9-32	Enterprise Security Application on JACE 9000 Model - 32 Readers. Compatible with N4.14 and later. (Not included in capacity). Does not include JACE controller.
Niagara Enterprise Security - JACE video drivers	
DR-MAXP-8	Maxpro® 8 camera driver. Max 16 cameras per JACE.
DR-AXIS-8	Axis® 8 camera driver. Max 16 cameras per JACE.



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