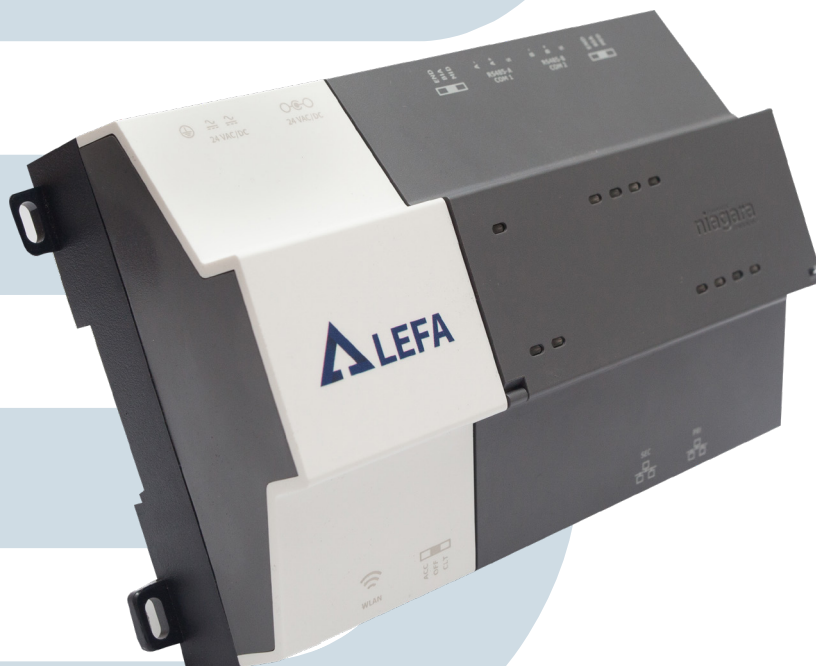


SCORPION - 8000

PRODUCT DEFINITION

The SCORPION 8000 is a compact, embedded IoT (Internet of Things) controller and server platform for connecting multiple and diverse devices and sub-systems. With internet connectivity and web-serving capability, the Scorpion-8000 controller provides integrated control, supervision, data logging, alarming, scheduling and network management. It streams data and rich graphical displays to a standard web browser via an Ethernet or wireless LAN, or remotely over the internet. Niagara Enterprise Security is a Niagara AX-based application that runs on the SCORPION 8000. Niagara Analytics 2.0 is a data analytics extension to the Niagara Framework® available on S-8000 controllers.

The licensing model for the S-8000 controller is simplified and features standard drivers, along with optional IO and field bus expansion modules for ultimate flexibility and expandability. The S-8000 controller operates with Niagara 4, the latest version of the Niagara Framework, for optimum performance. In larger facilities, multi-building applications and large-scale control system integrations, Niagara 4 Supervisors can be used with S-8000 controllers to aggregate information, including alarms, and historical and real-time data, to create a single, unified application.



HARDWARE SPECIFICATIONS

TI AM3352: 1000MHz ARM® CortexTM-A8
1GB DDR3 SDRAM
Removable micro-SD card with 4GB flash total storage/2GB user storage
<i>*Wi-Fi (Client or WAP) IEEE802.11a/b/g/n IEEE802.11n HT20 @ 2.4GHz IEEE802.11n HT20/HT40 @ 5GHz Configurable radio (Off, WAP, or Client) WPAPSK/ WPA2PSK supported</i>
<i>*USB type A connector Back-up and restore support</i>
(2) isolated RS-485 with selectable bias and termination
(2) 10/100MB Ethernet ports
Secure boot
<i>**Supply requirements: 24VAC rated at 24VA minimum, or 24VDC rated at 1A (24W) minimum</i>
Runs Niagara AX: 3.8u1 and later
Runs Niagara 4: 4.1 and later
Niagara Analytics 1.1 requires Niagara AX 3.8u1 or later update builds
Niagara Analytics 2.0 requires Niagara 4.2 and later
Real-time clock
Batteryless

**Not supported with Niagara AX
**Niagara Enterprise Security requires four hours of standby power*

SCORPION - 8000

SCORPION - 8000 ORDERING INFORMATION : NIAGARA ANALYTICS 2.0

SCORPION 8000 SERIES ORDERING INFORMATION

Part number *	Description
LF03NA-EC-N4-100	Niagara Analytics Framework (on Niagara 4) license for 100 analytic points for an Embedded Controller (SCORPION 8000)
LF03NA-EC-N4-250	Niagara Analytics Framework (on Niagara 4) license for 250 analytic points for an Embedded Controller (SCORPION 8000)
LF03NA-EC-N4-500	Niagara Analytics Framework (on Niagara 4) license for 500 analytic points for an Embedded Controller (SCORPION 8000)
LF03NA-EC-N4-1000	Niagara Analytics Framework (on Niagara 4) license for 1,000 analytic points for an Embedded Controller (SCORPION 8000)

INCLUSION OF ANALYTIC POINTS AS A BASE

Part number	Description
LF03NA-N4-BASE-25	Niagara Analytics Framework (on Niagara 4) license for 25 analytic points for an Embedded Controller (SCORPION 8000) or Supervisor. Requires NO additional purchase of SMA (included as part of core Niagara 4 SMA)

*Effective September 9, 2016

Niagara Analytics 2.0 licenses are conveniently and cost-effectively based on the number of analytical points and do not expire. Niagara 4 includes a Software Maintenance Agreement (SMA) that covers all Niagara Analytics enhancements, adding to the value of the SMA when you invest in Niagara 4.

KEY ADVANTAGES

- Data analysis at the onsite SCORPION controller level.
- Real-time on -premise analytic control

SCORPION - 8000

EXPANSION MODULE AND IO CONFIGURATIONS

MAXIMUM EXPANSION (MODULES SUPPORTED)

- NPB-8000-LON (4)
- NPB-8000-232 (4)
- NPB-8000-2X-485 (2)

MAXIMUM IO (MODULES SUPPORTED)*

- T-IO-16-485 (16)*
- IO-R-16 (16)*
- IO-R-34 (8)*

*See SCORPION IO R data sheet for configuration details

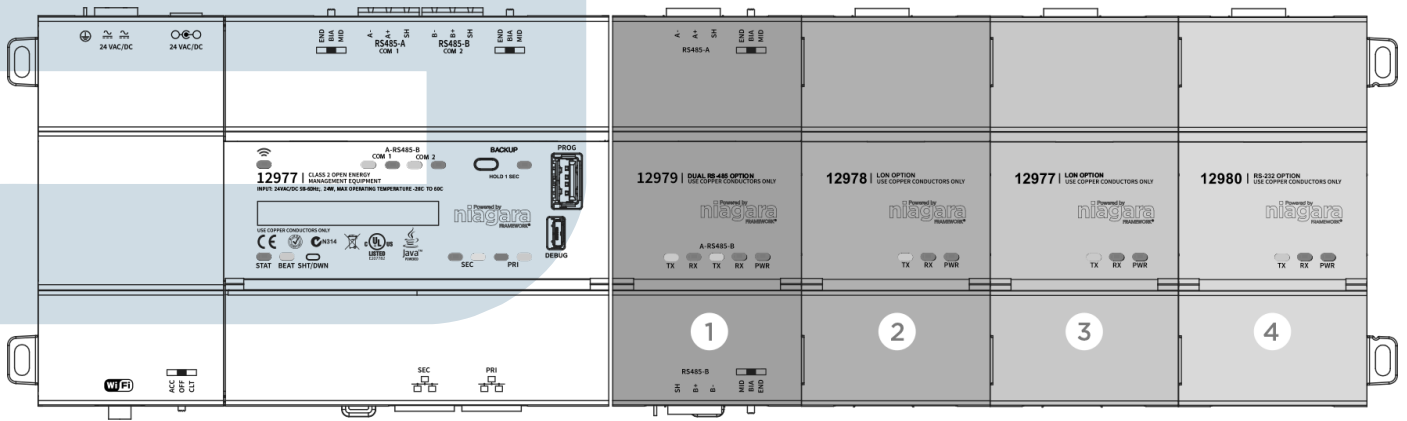
MAXIMUM NIAGARA ENTERPRISE SECURITY (MODULES SUPPORTED)*

- T-SEC-R2R*
- T-SEC-RIO*

*16 total each or combined

MAXIMUM NIAGARA ENTERPRISE SECURITY INTRUSION KEYPADS

SEC-INT-KP (6)



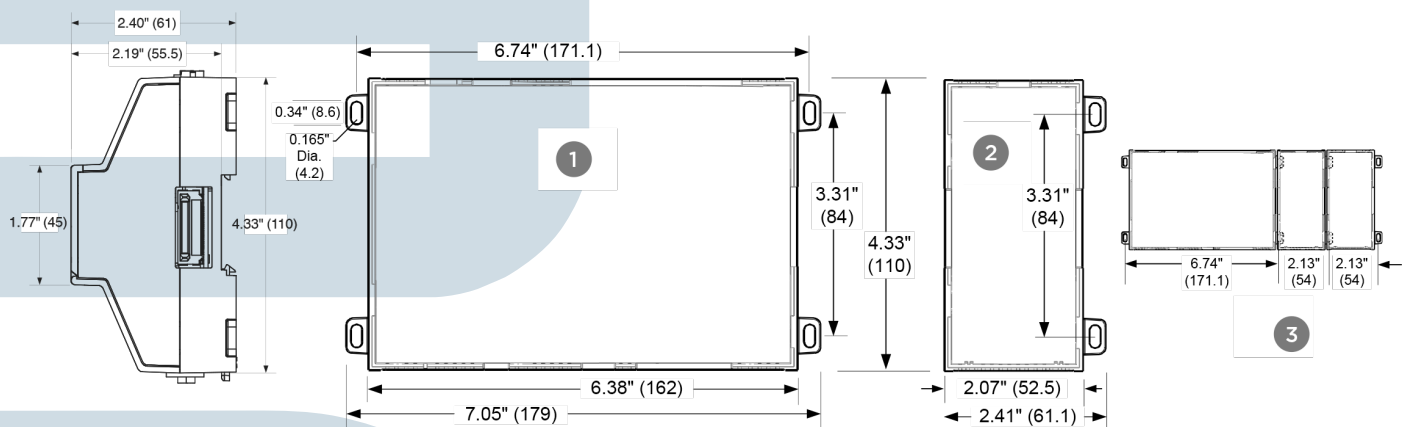
EXPANSION 1	EXPANSION 2	EXPANSION 3	EXPANSION 4
232 or LON	232 or LON	232 or LON	232 or LON
485 485	232 or LON	232 or LON	232 or LON
485 485	485 485	232 or LON	
485 485	485 485		



SCORPION - 8000

SCORPION - 8000 CONTROLLER MOUNTING & DIMENSIONS

- 1 SCORPION 8000 Controller. Allow at least 1.5" (38mm) clearance around all sides and minimum 3" (76mm) at bottom for Wi-fi antenna
- 2 Expansion module. Up to four (4) may be used. See "Expansion Module and IO Configurations"
- 3 Distances between center of tabs from one unit to another unit



Compatible with (DIN43880) enclosures
Suitable for mounting to a panel or to an EN50022 standard 35mm rail

Vizio stencils available upon request

AGENCY CERTIFICATIONS

- UL 916
- CE EN 61326-1
- RCM
- FCC Part 15 Subpart B, Class B
- FCC Part 15 Subpart C
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- 1999/5/EC R&TTE Directive
- CCC
- SRRC
- RSS
- RoHS

ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -20 - 60°C
- Storage temperature : -40 - 85°C
- Humidity : 5%-95% - Non condensing
- Shipping & vibration : ASTM D4169, Assurance Level II
- MTTF : 10 years +

SCORPION - 8000

EXPANSION MODULE AND IO CONFIGURATIONS

Part number	Description
LF03-S-8000	Base unit includes two isolated RS485 ports, two 10/100MB Ethernet ports, USB Backup & Restore and Wi-Fi connectivity
LF03-S-8000-DEMO	Base unit includes two isolated RS485 ports, two 10/100MB Ethernet ports, USB Backup & Restore, Wi-Fi connectivity, all available Tridium drivers and a 500 device license. Hardware Accessories purchased separately. Available with Niagara Analytics 2.0 (non- production only).
LF03-NC-8XXX-DEMO	SCORPION 8000 Demo with 500 Device Core. Includes all available Tridium drivers. Requires Niagara 4.1 or higher. Available with Niagara Analytics 2.0 (non-production only). License will renew annually with the receipt of the annual support fee.
LF03-NC-8005	Up to 5 devices/250 point core
LF03-NC-8010	Up to 10 devices/500 point core
LF03-NC-8025	Up to 25 devices/1,250 point core
LF03-NC-8100	Up to 100 devices/5,000 point core
LF03-NC-8200	Up to 200 devices/10,000 point core
LF03-DEVICE-10	Up to 10 devices/500 point upgrade (can be purchased during initial licensing)
LF03-DEVICE-25	Up to 25 devices/1,250 point upgrade (can be purchased during initial licensing)
LF03-DEVICE-50	Up to 50 devices/2,500 point upgrade (can be purchased during initial licensing)
LF03-DEVICE-UP-10	Up to 10 devices/500 point upgrade (can be purchased post initial licensing)
LF03-DEVICE-UP-25	Up to 25 devices/1,250 point upgrade (can be purchased post initial licensing)
LF03-DEVICE-UP-50	Up to 50 devices/2,500 point upgrade (can be purchased post initial licensing)
LF03-S-8000-AX	Enables SCORPION 8000 controller to run Niagara AX 3.8u1 or later
LF03-NPB-8000-2X-485	SCORPION 8000 controller — add on dual port RS-485 module
LF03-NPB-8000-LON	SCORPION 8000 controller — add on single port LON FTT10A module
LF03-NPB-8000-232	SCORPION 8000 controller — add on single port RS-232 module
LF03-WPM-8000	Universal power supply for SCORPION 8000 controller
LF03-T-IO-16-485	Remote IO module, compatible with the SCORPION 8000 controller. Communication using RS 485, maximum IO supported T-IO-16-485 modules: 16
LF03-T-NPB-PWR	24V power supply for T-IO-16-485
LF03-T-NPB-PWR-UN	Universal power supply for T-IO-16-485
LF03-IO-R-16	Optional 16 point IO RS485 module designed for use with the SCORPION 8000 — Includes 8 Universal Inputs, 4 Form A Relay Outputs and 4 0-10 VDC Analog Outputs.
LF03-IO-R-34	Optional 34 point IO RS485 module designed for use with the SCORPION 8000 — Includes 16 Universal Inputs, 10 Form A Relay Outputs and 8 0-10 VDC Analog Outputs.

SCORPION - 8000

SCORPION - 8000 CONTROLLER MOUNTING & DIMENSIONS

HARDWARE SPECIFICATIONS

Part number	Description
LF03-SEC-J8-AX	Niagara Enterprise Security license for SCORPION 8000 controller. Includes licensing for 32 readers (not included in capacity). Also includes SCORPION 8000 Niagara AX license option (JACE-8000-AX). Does not include the S-8000 controller.

HARDWARE SPECIFICATIONS

Part number	Description
LF03-T-SEC-R2R	Security module for 2 readers/access doors and 2 digital inputs
LF03-T-SEC-RIO	Security module with 8 supervised inputs, 8 relay outputs and 2 digital inputs
LF03-SEC-INT-KP	Intrusion keypad with LCD display for arming/disarming security zones
LF03-T-SEC-ENC-LNP	Large enclosure with keyed lock, door status switch, and 2 din rails for mounting JACE 8000 controller and up to 4 remote reader modules or 2 remote IO modules. Several other combinations of devices may be mounted in this panel. Dimensions: 17"W x 22"H x 4"D.