LNL-X2210

Intelligent Single Door Controller


Overview

The LNL-X2210 Intelligent Single Door Controller (ISDC) is an edge device that provides a solution for interfacing one or two readers to a single door within an OnGuard® system. Offering innovation at an economical price point, the LNL-X2210 controller is a high-performance, Ethernet-ready card reader panel that controls a single opening with 802.3af/802.3at compliant Power over Ethernet (PoE). Built on a proven platform, the LNL-X2210 controller seamlessly interfaces to a larger system for flexible, reliable expansion. Easy installation with PoE makes this the logical choice for single door control.

Once configured, the LNL-X2210 controller functions independently of the host and is capable of sophisticated processes while controlling access for a single opening. Without host intervention, the LNL-X2210 controller can relate selected system devices and their activity to other onboard devices, consistently allowing those activities and actions to transpire independently.

The LNL-X2210 controller is capable of interfacing with a wide array of reader technologies for single opening control. Reader ports support separate in/out readers and technologies that include Wiegand, clock and data, RS-485, OSDP™, keypads, LCD and biometrics — resulting in the flexibility, versatility and reliability needed for success.

An alternative configuration is available with OnGuard version 6.6 and higher for the LNL-X2210 controller. The first physical reader port can be configured to support RS-485 communication bus to LNL Door Interfaces (LNL-1300/LNL-1320) or IO devices (LNL-1100/LNL-1200). Up to eight RS-485 addressed devices can be supported on this communication bus. These additional devices must have a local power supply. In this configuration, the second physical reader port on the LNL-X2210 controller is still available for standard single reader interface; it is not available as an OSDP Reader.
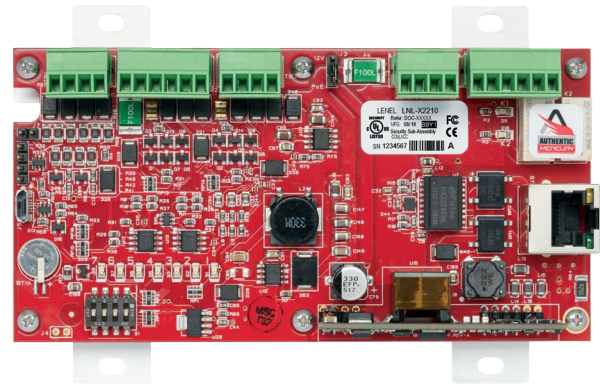
Features & Functionality

Controller Functionality

· 6 MB of available on-board, non-volatile flash memory
· Firmware stored in flash memory, background download of firmware updates supported
· Optional secondary communications available through a USB to Ethernet connection
· RNDIS support enables USB connection to display controller web configuration pages

Access Control

· 240,000 cardholders, 50,000 event transaction buffer
· Up to 128 access levels per cardholder
· Programmable card activation and deactivation times and dates
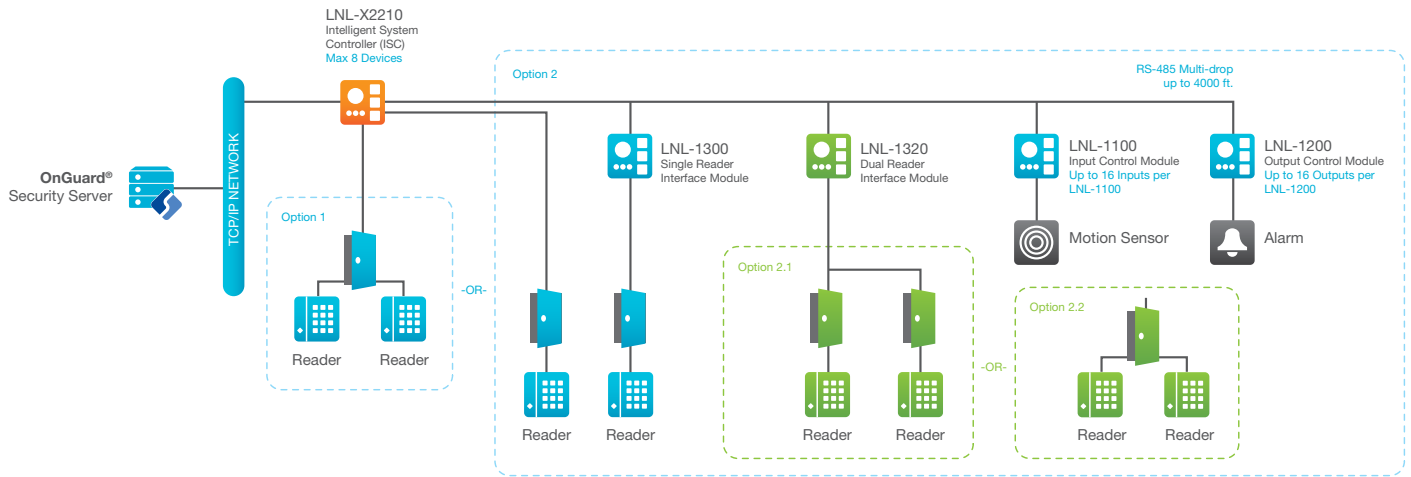· Individual extended held open and strike times (ADA required)

Card Formats

· Up to sixteen active card formats per LNL-X2210
· PIV, CAC, and TWIC card compatible
· Magnetic stripe, proximity, iClass®, multiClass, MIFARE®, DESFIRE®, biometric template support

Advanced Functionality

· Advanced Encryption Standard (AES) 256-bit algorithm for communications to Series 3 reader and I/O modules; AES 128-bit encryption to Series 2 reader and I/O modules
· AES128 or TLS 1.2 (with AES256 support) communication to OnGuard
· Enhanced anti-passback capabilities: nested global hard or soft anti-passback, timed anti-passback, two person control, designated one or two person control, tail gate control and occupancy limit
· Configurable option for Data at Rest encryption
· Standard or custom end of line resistance

System Diagram

LNL-X2210
Intelligent System Controller (ISC)
Max 8 Devices

OnGuard® Security Server

TCP/IP NETWORK

Option 1
Reader | Reader

-OR-

Option 2

LNL-1300 Single Reader Interface Module
Reader | Reader

LNL-1320 Dual Reader Interface Module

Option 2.1
Reader | Reader

-OR-

Option 2.2
Reader | Reader

RS-485 Multi-drop up to 4000 ft.

LNL-1100 Input Control Module Up to 16 Inputs per LNL-1100
Motion Sensor

LNL-1200 Output Control Module Up to 16 Outputs per LNL-1200
Alarm

Specifications

The interface is for use in low voltage, Class 2 Circuits only.
The installation of this device must comply with all local fire and electrical codes.

Primary Power	PoE (12.95 W), compliant to IEEE 802.3af or
	PoE+ (25 W), compliant to IEEE 802.3at or
	12 VDC ± 10%, 1.8 A maximum
Power Output	PoE: 12 VDC @ 625 mA including reader and Auxiliary Power output
	PoE+ or external 12 VDC: 12 VDC @ 1.25 A including reader and Auxiliary Power output
Primary Host Communication	Ethernet: 10-BaseT/100Base-TX
Secondary Host Communication	USB port (2.0) with optional adapter: pluggable model USB2-OTGE100
Inputs	Two unsupervised / supervised, standard EOL: 1k/1k ohm, 1% 1/4 watt
	One unsupervised dedicated for cabinet tamper
Outputs	Two relays: Form-C contacts: 2 A @ 30 VDC resistive

Reader Interface

Power	12 VDC ± 10% regulated, PoE, PoE+ or local power, 300 mA maximum
Data Inputs	Reader port 1: TTL compatible, F/2F or 2-wire RS-485
	Reader Port 2: TTL compatible or F/2F
LED Output	TTL levels, high > 3 V, low < 0.5 V, 5 mA source/sink maximum
Buzzer Output	Open collector, 12 VDC open circuit maximum, 40 mA sink maximum

Cable Requirements

Power	One twisted pair, 18 AWG (when using local 12 VDC power supply)
Ethernet	CAT-5, minimum
Reader Data (TTL)	6-conductor, 18 AWG, 500 ft. (152m) maximum
Reader Data (F/2F)	4-conductor, 18 AWG, 500 ft. (152m) maximum
Reader Data (RS-485)	One twisted pair, shielded. 24 AWG, 120 ohm impedance, 2,000 ft. (610m) maximum
Alarm Input	One twisted pair, 30 ohms maximum, typically 22 AWG @ 1,000 ft. (304.8m)
Outputs	As required for the load

Mechanical

Dimensions	5.5 W x 2.75 L x 0.96 H in. (140 x 70 x 24mm) without bracket
	5.5 W x 3.63 L x 1.33 H in. (140 x 92 x 34mm) with bracket
Weight	3.6 oz. (103g) without bracket
	4.43 oz. (125.5g) with bracket

Environmental

Temperature	-55° to +85° C, storage
	0° to +70° C, operating
Humidity	5 to 95% RHNC
Heat Output (BTUs)	at 12 VDC, 13.3 BTU/hr
Approvals	FCC Part 15, CE, RoHS, UL 294, UL 2610

Parts and Spare Parts

Part No.	Description
LNL-X2210	6 MB on-board flash memory available for cardholder database; 50,000 event backed RAM for event log.
USB2-OTGE100	USB to Ethernet converter, for LNL-X Series Controllers only. Provides optional Secondary NIC connection. Second NIC should be on different subnet than primary NIC.
LNL-1300-TAMPER	Tamper cable for LNL-2210, LNL-X2210, LNL-1300, LNL-1330-S3, LNL-1300E.
LNL-RPL-MTG-3G	Replacement mounting plate for LNL-2210, LNL-X2210, LNL-1300E with 4-40 screws.

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Specifications subject to change without notice.