

BlueDiamond Multi-technology Readers



Overview

The BlueDiamond™ platform offers a complete, next-generation access control experience. With multi-technology readers, a feature-rich mobile app and the ability to support mobile and physical credentials, organizations can upgrade to the BlueDiamond experience at their own pace.

BlueDiamond multi-technology readers are among the most versatile access control readers on the market, work seamlessly with existing infrastructures and leverage open credentialing standards. The readers are non-proprietary, access control platform agnostic and support standard output protocols including Supervised F/2F (SF/2F), Wiegand, OSDP™ and OSDP V2. When utilizing LenelS2 OnGuard®, NetBox™, and Elements™ access control systems, users can conveniently manage mobile credentials through a single system.

Simultaneous support for a wide range of smart cards – including HID® iCLASS®, MIFARE® and DESFire® EV1, EV2 and EV3 – in addition to support for standard proximity cards means BlueDiamond multi-tech readers provide a seamless migration path from less secure card technologies to a more secure, open standard with DESFire EV1, EV2 and EV3 card technology and BlueDiamond mobile credentials.

The latest update to the BlueDiamond reader portfolio is the ability to support NFC Wallet-based credentials. With a cybersecurity mindset and privacy by design development strategy, LenelS2 is providing one of the most customer-centric NFC solutions on the market. Please reach out to your local Regional Sales Manager for more information on how to get started.

Features & Functionality

- Support for LenelS2 BlueDiamond Bluetooth and NFC credentials
- Multi-tech readers offer simultaneous support for:
 - **125kHz proximity cards**
 - HID Proximity
 - AWID® Proximity
 - CASI/GE Security ProxLite
 - **13.56MHz smart cards**
 - MIFARE DESFire EV1/EV2/EV3
 - Support for key diversification based on NXP standard
 - Support for NFC wallet-based credentials
 - MIFARE Classic - ISO 14443, or secure sector data
 - Vicinity Card Serial Number - ISO 15693
 - HID iCLASS**
- Mobile-ready readers can be upgraded to read BlueDiamond Bluetooth mobile credentials through the purchase of a license without the need to add or replace hardware
- Mobile-ready readers come with the Bluetooth radio disabled and requires the BDC-UNLOCK and BDC-BLUETOOTH configuration cards to enable (sold separately)
- Mobile-enabled readers support mobile credentials out of the box
- Wiegand, SF/2F or OSDP with or without secure channel encryption, auto-configuring with LenelS2™ access panels
- Firmware updates, custom key loading and configuration changes via OSDP file transfer when BlueDiamond multi-tech readers are paired with the OnGuard access control system version 7.5 or greater, Mercury xSeries Controllers and Mercury Series 3 i/o boards
- Slim profile
- Fingerprint-resistant black textured finish
- Optical tamper switch

BlueDiamond Multi-technology Readers

Specifications

			
Mobile-ready Readers	Multi-technology Mini-mullion Reader LNL-R10330-05TB	Multi-technology Standard-size Reader LNL-R10320-05TB	Multi-technology Standard-size Reader with PINpad LNL-R10325-05TB
Mobile-enabled Readers	Multi-technology Mini-mullion Reader LNL-R11330-05TB	Multi-technology Standard-size Reader LNL-R11320-05TB	Multi-technology Standard-size Reader with PINpad LNL-R11325-05TB
Mechanical			
Dimensions	3.8 x 2.1 x 0.8 in 96 x 52 x 21mm	4.2 x 3.0 x 0.8 in 120 x 76 x 21mm	
Housing	Molded polycarbonate/ABS		
Finish	Black, textured, fingerprint resistant		
Mounting	Wall surface or standard US, UK, or EU switchbox		
Environmental			
Operating Temperature	-31° - 149°F (-35° - 65°C)		
Humidity	0 - 100% RHNC		
Ingress Protection Rating	IP65		
Electrical			
Voltage	10Vdc to 16Vdc		
Average Current draw at 12 VDC	35mA	35mA	67mA
Peak Current draw at 12 VDC	67mA	73mA	105mA
Data Voltage	Rest >4Vdc / Active <1Vdc		
Reader Interface	Supervised F/2F***, OSDP, Weigand		
Indication	1 RGB LED		1 RGB LED + illuminated keypad
Sounder	Integral speaker		
Read Range	Up to 4 in. (10cm) for RFID cards, up to 30 ft. (9m) for Bluetooth		
Warranty			
Warranty	5-year limited warranty		
Certifications			
FCC Part 15 UL294 CE Marked RoHS WEEE IP65			

* The BlueDiamond mobile app is available for iOS® and Android® devices, as well as the Apple Watch®.

**Support for HID iCLASS Classic or Standard, not Elite Key, SE or SEOS.

***Support for Supervised F/2F protocol on a BlueDiamond reader is indicated by a label visible on the physical reader.

BlueDiamond Multi-technology Readers

Ordering Information

Mobile-ready Readers	
LNL-R10330-05TB	Multi-technology Mini-mullion Reader
LNL-R10320-05TB	Multi-technology Standard-size Reader
LNL-R10325-05TB	Multi-technology Standard-size Reader with PINpad
Mobile-enabled Readers	
LNL-R11330-05TB	Multi-technology Mini-mullion Reader
LNL-R11320-05TB	Multi-technology Standard-size Reader
LNL-R11325-05TB	Multi-technology Standard-size Reader with PINpad
Pre-Encoded Credentials	
LNL-EV22KPP	DESFire EV2 ISO PVC 2K 13.56MHz
LNL-EV22KPPD	DESFire EV2 ISO PVC 2K 13.56MHz - pre-programmed with diversified key for BlueDiamond readers (requires reader firmware dev 42 or higher)
LNL-EV22KPPDFOB	DESFire EV2 Plastic Keyfob 2K 13.56MHz - pre-programmed with diversified key for BlueDiamond readers (requires reader firmware dev 42 or higher)
LNL-EV28KPPD	DESFire EV2 ISO Composite 8K 13.56MHz - pre-programmed with diversified key for BlueDiamond readers (requires reader firmware dev 42 or higher) 9476-3m
LNL-EV22KPPFOB	DESFire EV2 2K 13.56MHz Keyfob
LNL-EV22KPPMG	DESFire EV2 ISO PVC 2K 13.56MHz with Magnetic Stripe (no encoding on stripe)
LNL-EV28KPP	DESFire EV2 ISO Composite 8K 13.56MHz
LNL-EV28KPXPP	DESFire EV2 ISO Composite 8K with Proximity Chip
LNL-EV28KPPMG	DESFire EV2 ISO PVC 8K 13.56MHz with Magnetic Stripe (no encoding on stripe)
Non-Encoded Credentials	
LNL-EV22KNP	DESFire EV2 ISO PVC 2K 13.56MHz
LNL-EV22KNPFOB	DESFire EV2 2K 13.56MHz Keyfob
LNL-EV22KNPMG	DESFire EV2 ISO PVC 2K 13.56MHz with Magnetic Stripe (no encoding on stripe)
LNL-EV28KNP	DESFire EV2 ISO Composite 8K 13.56MHz
LNL-EV28KPXNP	DESFire EV2 ISO Composite 8K with Proximity Chip
LNL-EV28KNPMG	DESFire EV2 ISO PVC 8K 13.56MHz with Magnetic Stripe (no encoding on stripe)
Licenses	
BDM-OWNERACT	Required to create a BlueDiamond owner account
BDM-MERL	BlueDiamond mobile license upgrade to convert any mobile-ready reader to a mobile-enabled reader
BDM-CRD	Per mobile credential per user fee
BDM-RDR	Per reader fee for unlimited credentials. Applies to every reader used for use with mobile credentials only
BDM-NFCBUNDLE	One-time setup fee for NFC Wallet-based credentials
BDM-NFCUSER	Billed automatically for new 'adds to wallet' or activation of NFC credential
BDR-NFCUSER	Billed automatically one year after 'add to wallet' if the credential is still active in the wallet

One NFC user has two credentials (based on PACS).
One Phone credential and one Watch credential = One pass for one NFC user.



[LenelS2.com](https://www.lenels2.com)

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