

# 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.




With both mobile-ready and mobile-enabled versions available within the BlueDiamond multi-tech reader portfolio, organizations can achieve enhanced security at their own pace. For organizations that are not ready for mobile credentialing, but want to have the flexibility to add it in the future, the BlueDiamond mobile-ready readers provide flexibility without the need to replace or add hardware. Mobile credentialing can be enabled within these readers through the purchase of a license. The BlueDiamond mobile-enabled readers are ready out of the box to support mobile credentials.

## Features & Functionality

- Support for BlueDiamond mobile credentials via Bluetooth
- 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 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

|  |        |         |                   |
|--|---|--|--|
| <b>Mobile-ready Readers</b>                          | Multi-technology Mini-mullion Reader<br><b>LNL-R10330-05TB</b><br><b>S2-R10330-05TB</b> | Multi-technology Standard-size Reader<br><b>LNL-R10320-05TB</b><br><b>S2-R10320-05TB</b> | Multi-technology Standard-size Reader with PINpad<br><b>LNL-R10325-05TB</b><br><b>S2-R10325-05TB</b> |
| <b>Mobile-enabled Readers</b>                        | Multi-technology Mini-mullion Reader<br><b>LNL-R11330-05TB</b><br><b>S2-R11330-05TB</b> | Multi-technology Standard-size Reader<br><b>LNL-R11320-05TB</b><br><b>S2-R11320-05TB</b> | Multi-technology Standard-size Reader with PINpad<br><b>LNL-R11325-05TB</b><br><b>S2-R11325-05TB</b> |
| <b>Mechanical</b>                                    |   |  |  |
| Dimensions   | 3.8 x 2.1 x 0.8 in<br>96 x 52 x 21mm  | 4.2 x 3.0 x 0.8 in<br>120 x 76 x 21mm  |  |
| Housing  | Molded polycarbonate/ABS  |  |  |
| Finish   | Black, textured, fingerprint resistant  |  |  |
| Mounting   | Wall surface or standard US, UK, or EU switchbox  |  |  |
| <b>Environmental</b>                                 |   |  |  |
| Operating Temperature                                | -31° - 149°F (-35° - 65°C)  |  |  |
| Humidity   | 0 - 100% RHNC   |  |  |
| Ingress Protection Rating                            | IP65  |  |  |
| <b>Electrical</b>                                    |   |  |  |
| 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                      |  |  |
| <b>Warranty</b>                                      |   |  |  |
| Warranty   | 5-year limited warranty   |  |  |
| <b>Certifications</b>                                |   |  |  |
| 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         | S2-R10330-05TB | Multi-technology Mini-mullion Reader  |
| LNL-R10320-05TB         | S2-R10320-05TB | Multi-technology Standard-size Reader   |
| LNL-R10325-05TB         | S2-R10325-05TB | Multi-technology Standard-size Reader with PINpad   |
| Mobile-enabled Readers  |                |   |
| LNL-R11330-05TB         | S2-R11330-05TB | Multi-technology Mini-mullion Reader  |
| LNL-R11320-05TB         | S2-R11320-05TB | Multi-technology Standard-size Reader   |
| LNL-R11325-05TB         | S2-R11325-05TB | Multi-technology Standard-size Reader with PINpad   |
| Pre-Encoded Credentials |                |   |
| LNL-EV22KPP             | S2-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          | S2-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             | S2-EV28KPP     | DESFire EV2 ISO Composite 8K 13.56MHz   |
| LNL-EV28KPXPP           | S2-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   |



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