Nexus online readers – secure thinking

prima

100% ACCESS CONTROL
100%
SIMPLE · SECURE · ECONOMICAL

Elegant and efficient, flexible and future-proof

The heart of the FlexAir® access control system

Nexus readers lie at the very heart of the Prima® FlexAir® access control system. Online readers communicate constantly with the centrals, making them 'central' to the FlexAir® concept.

Encrypted communication to and from readers adds another level of security. Readers can identify cards held up to 3-10 cm away. All models feature EST® (Energy Saving Technology).

A quick update…

Being in constant communication with the centrals means that Nexus online readers are immediately being updated with the latest permissions. They are therefore best placed by doors, areas of high traffic, or rooms and corridors where you want to maintain a high level of security.

There are four types of Nexus online readers: with keypad, without keypad, Prox and MIFARE. Readers with keypad are more secure but no less flexible, offering the additional options of operation via PIN, card, or PIN and card. For high security areas we support MIFARE DESFire EV1 which includes 128-bit AES encryption.

ADVANTAGES OF USING NEXUS ONLINE READERS

• Instant and continuous access permission updates

• Secure your office or building 24/7, 365 days a year

• Dramatically reduced power consumption with EST®

• Encrypted connection via RS485 BUS to Alpha central

• Lock and unlock via the central/software interface

• Automated timed locking and unlocking

• In-out movement counters to help traffic management

• MIFARE readers equipped with NFC (Smartphone communication)

• The firmware of the readers can be upgraded via centrals post-installation

• Anti pass-back.

Nexus readers' narrow design allow them to also fit in on narrow door frames.

Energy saving technology

Energy Saving Technology, or EST®, is a standard feature on all readers that allows them to go into hibernation mode at off-peak times – saving energy. By only being active every few seconds power consumption is reduced by up to 50%.

Designed to fit right in

Nexus readers are not only all that you need them to be, but all that you'd want them to be too. Their modern, elegant design is carved out of vandal-proof, impact- and fire resistant polycarbonate, with integrated tamper sensor, red-green diode and buzzer. Robust and durable, they're more than a match for any environment.

Diode

Clear and simple diode shows tag-holders whether or not they have permission to enter. Green indicates that permission is granted, red that access is denied (due to use of an unauthorised tag or card).

Keypad

Keypad uses touch keys with no mechanical contacts and moving parts. The numbers are integrated in the housing, meaning that they never wear off.

Back lighting

All keypad readers feature backlighting, making it easy for staff to use them at night.

Completely sealed

All units are sealed and has IP65.

Vandal-proof additional security

For areas where there's a high risk of damage or wilful tampering, a vandalism shield offers an additional level of protection.

You can choose between two solutions. One solution offers protection of the reader by mounting a vandalism shield on top of the reader. The shield has a polycarbonate lexan plate which covers the front of the reader, protecting it from damages. This solution is suitable for MIFARE readers, and for protection of already installed Prox and MIFARE readers. The second solution offers positioning an reader safely on the inside of the door, and linking this to an antenna fixed behind a sturdy stainless steel shield (for Prox only).

Both vandalism shields have a simple yet exclusive design.
Both solutions have been thoroughly tested and can resist wilful tampering

Anti-vandal shield adds an extra protection.

NEXUS READERS

Specifications	Cortex M3 CPU
Supply voltage	Min 9V DC - Max 24V DC
Typical supply current	72mA at 14V DC, 1W, with keypad 180 mA at 14V DC, 2.5W
Peak current	150mA at 14V DC, 2.1W, with keypad 200 mA at 14V DC, 2.8W
Operating temperature	−20 °C to 70 °C
Storage temperature	−45 °C to 85 °C
Communications	RS485 port, using MODBUS protocol with encrypted data[1]
LED indicator	Two color: red for locked door and green for open door
Buzzer	Short beep if access is granted and longer error beep for otherwise. For each key pressed, you will hear short click sound and see blink of green LED
Transmit frequency	13.56 Mhz (Nexus M or MK – MIFARE Classic/ DESfire EV1) or 125 kHZ (Nexus P or PK)
Reading distance	Nexus Prox - ISO card: typical 40mm Nexus Prox - Tag: typical 30 mm Nexus MIFARE - ISO card: typical 40mm Nexus MIFARE - Tag: typical 20 mm
Recommended mounting height	130-160 cm
Cable length	3m
Max cable distance from central	50m, check cable specifications for details.
Wiring	Orange + 9-24V DC input Orange/White - Ground Green RA RS-485 BUS Green/White RB RS-485 BUS
Anti-sabotage protection (tamper switch)	Optical, integrated
Dimensions	Width:54mm x length:149mm x height: 15mm
Weight	165g
Standards and certifications	CE
IP protection	IP 65
Color	Black
Material	Self-extinguishing material PC-ABS (V0)
Warranty	2 years

Note 1 Some features will be available with firmware upgrade

Ready for all that the future holds

Because all readers are fitted with separate processors firmware can easily be upgraded via the central following installation. It's just one of many features aimed at making our system as future-proof as possible. MIFARE readers, for example, are fitted with Near Field Communication (NFC) technology, which opens up the potential for them to interact with smartphones and similar devices in years to come.

Able to grow with you

Should your business grow or your requirements change, you'll find that the FlexAir® door access system is ready to grow with you. Expanding it is easy – there's no limit to the number and combination of on- and offline readers you can use. There are two types of offline readers: EvoLock® electronic door handles and SensoLock® lock cylinders. Both are battery powered and don't require mains wiring.

Prima Systems - experts in the field of access control

Prima Systems was founded by engineers with years of experience in the field of access control. With their specialist expertise and through solid first-hand experience, they have developed an access control system based on what clients want and need, while having high security in mind. We provide 100 % access control systems, and we co-operate with experts in the field to continuously develop inno-vative and secure, yet user-friendly products for customers. Our production and development are internationally based, and our experienced sales force and experienced technicians are always ready to help you.

If you need guidance, solution-suggestions, price estimates, samples and such please feel free to contact us. Together we will find the best solution to secure your building.

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