

nedap®



Convexs Readers

- Stylish and timeless design
- Suitable for both AEOS and Nedap XS access control system
- Allows for simultaneous use of dual card technology
- Allows for seamless upgrading from Mifare to DESFire

Convexs Readers



The Convexs reader enables smooth migration to Mifare Classic or DESFire card technology in both existing Nedap XS systems and Nedap AEOS Enterprise systems.

The Convexs MN80 reader has been designed with dual reader technology. It can interchangeably read both Nedap XS and Mifare Classic credentials. The Convexs M80 reader has been designed for Mifare Classic technology. The output of the readers can be set to either Wiegand, XS RF modulation or encrypted RS485 protocol. The MD80 version reads both Mifare Classic & DESFire technology which provides for an enhanced security solution.

Design

That design has been a prime driver in the development is emphasized by the name of the new reader series. The name, Convexs, has been derived of the Latin word “convexus” and refers to the arched shape of the design. All Convexs readers are available in a surface mount and flush mount version. The flush mount version has especially been

developed to fit in a junction box. For both versions, vandal proof protectors are available.

Migration of credential technology in a XS system

The Convexs enables a smooth migration to Mifare or DESFire card technology, within existing Nedap XS systems. By replacing the existing antenna with the Convexs reader, the XS system’s Accessor III and SimpleXS can be “opened up” to read Mifare/DESFire credentials. The card population can exist of a mix of Nedap and Mifare/DESFire cards. This way Mifare cards can be issued, e.g. for temporary use by visitors or contractors in a XS system. The major benefits are that the existing controllers (with corresponding database) do not have to be replaced and the antenna cabling, that is already in place can be re-used.

Migration of credential technology in an AEOS system

The AEOS system allows for the simultaneous use of any type of commonly available reader and card technology in one single system. Several reader specific AEPacks are available. When Nedap card technology is being used, migrating to Mifare/DESFire card and readers means that the applied reader

packs do not have to be changed. The Convexs reader can be connected to these units, replacing the former antennas and re-using the antenna cabling already in place. Migration can be performed gradually since the Convexs reader allows for the usage of both Nedap as well as Mifare/DESFire credentials simultaneously.

Secure Mifare and long cabling

When connecting the Convexs reader to an AP1003 or AP4x03 via RS485, encrypted data is used. Furthermore, the communication cabling distance between the Convexs reader and AP1003 / AP4x03 is extended up to 1000 meters. This way, the AEOS system provides both secure Mifare and long cabling distance.

Enhance security

Optional available is NeXS (NeXS stands for Nedap enhanced XS) functionality to enhance the secure air encryption between the Convexs reader and Nedap NeXS cards. NeXS comprises of triple DES (Data Encryption Standard) which enables a challenge response cycle between the presented card and the reader. NeXS is

available without having to exchange readers.

Integration with 3rd Party systems

When applying the Wiegand output option of the Convexs reader, the reader can be connected to third party controllers using the Wiegand interface.

Configuration

When a XS system is in place, the programming is handled via so called configuration cards. Should an AEOS system be applicable, with the RS485 output option, the required downloadable firmware can be deployed to the Convexs reader. To prepare the configuration- file or card a special windows program is used: Aereco.

Convexs adapters

Integration of the Convexs reader with a XS or an AEOS reader requires the usage of the Convexs adapter. This is a little PCB (printed circuit board) that provides power and LED control from the Accessor or AEOS reader packs to the Convexs reader and extends the cable length between the reader and Accessor to 50 meters.

Convexs Specifications

	Convexs M80	Convexs M80 F	Convexs MN80	Convexs MN80 F	Convexs MD80	Convexs MD80 F
Article numbers	9856250	9856420	9856110	9856390	9856900	9857060
Detection distance	Mifare Classic technology up to 25 mm		Mifare Classic tech. up to 25 mm Nedap technology up to 50 mm		Mifare Classic tech. up to 25 mm DESFire technology up to 25 mm	
Housing	ABS					
Dimensions (LxWxH)	80 x 80 x 32 mm	80 x 80 x 27 mm, 11 mm protruding	80 x 80 x 32 mm	80 x 80 x 27 mm, 11 mm protruding	80 x 80 x 32 mm	80 x 80 x 27 mm, 11 mm protruding
Interfaces	Wiegand: various formats: 26, 32, 37, 64, 128 RS485: Encrypted protocol and serial RF Modulator: XS readers compatible					
Weight	~80 grams					
Indication	LED green, red, blue (AEOS) LED green, red (XS) Buzzer					
Power consumption	Power input 10-30VDC, 100 mA (max.) In combination with XS and AEOS readers: Convexs adapter required!					
Cabling	Wiegand: 150 m, 2x2x0,25 mm ² shielded RS485 2-wire: 1000 m, 2x0,25mm ² shielded, communication only RF Modulator via Convexs Adapter: 50m, 2x2x0,25 mm ² , shielded					
Credentials	Mifare Classic		Nedap NeXS Mifare Classic		Mifare Classic DESFire & DESFire EV1	
Tamper	Optical switch					
Configuration	Windows Program AEreco: Card o RS485 deployment					
Temperature	Operating temperature: 0-55 °C; Storage: -30 - 65 °C					
Protection	IP54	IP65	IP54	IP65	IP54	IP65
Convexs Adapter	AX1014: (required when using reader AEpacks). AB350: (required when using XS readers).			Article Number: 7817401 Article Number: 7817010		
Convexs Protector	Protector 80F: protector for the Flush mount version. Protector 80: protector for the Surface mount version.			Article number: 9892338 Article number: 9896864		

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