

Convexs Readers



- Stylish and timeless design
- Suitable for both AEOS and Nedap XS access control system
- Integration with third party systems through Wiegand output
- Long cabling distance between Convexs reader and AEOS controller
- Secure RS485 communication between Convexs reader and AEOS controller
- MaXS functionality to enhance security [optional] Convexs reader and AEOS controller

The Convexs reader enables smooth migration to Mifare 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 credentials. The Convexs M80 reader has been designed for Mifare technology. The output of the readers can be set to either Wiegand, XS RF modulation or encrypted RS485 protocol.

Migration of credential technology in a XS system

The Convexs enables a smooth migration to Mifare 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 credentials. The card population can exist of a mix of Nedap and Mifare 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 card and readers doesn't mean that the applied reader packs (e.g. AP1001, AP1009 and AP4x01) 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 MN80 reader allows for the usage of both Nedap as well as Mifare credentials simultaneously.

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.

Secure Mifare and long cabling

When connecting the Convexs reader to an AP1003 or AP4x03 via RS485, encrypted data can be 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.

Different Mifare reading options

The Convexs reader provides for various ways of handling Mifare. Default, the Card Serial Number (CSN) is read. Also the data from a secured sector can be read. The Convexs reader supports the Mifare Application Directory (MAD).

Enhance security

Optional available is MaXS (Multiple Authentication XS) functionality to enhance the secure air encryption between the Convexs reader and Nedap MaXS cards. MaXS comprises of triple DES (Data Encryption Standard) which enables a challenge response cycle between the presented card and the reader. MaXS 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 configuration card a special windows program is used: AEreco.

The Convex Reader is available in two different versions: the standard Surface mount and the Flush mount. The Flush mount version has especially been developed to fit in a junction box.

Article numbers	Convexs M80 9856250	Convexs M80F 9856420	Convexs MN80 9856110	Convexs MN80F 9856390
Detection distance	Mifare technology up to 25 mm		Mifare technology up to 25 mm Nedap technology up to 50 mm	
Housing	ABS			
Dimensions	80 x 80 x 32 mm (LxWxH)	80 x 80 x 27 mm (LxWxH), 11 mm protruding	80 x 80 x 32 mm (LxWxH)	80 x 80 x 27 mm (LxWxH), 11 mm protruding
Interfaces	Wiegand : various formats: 26, 32, 37, 64, 128. RS485 : Encrypted protocol RF Modulator: XS readers compatible			
Weight	~80 gram			
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: ISO 14443A, CSN, Secured Sector Data, MAD		Nedap ProXS, UniXS and optionally MaXS cards. MaXS cards require the activation of MaXS functionality. Mifare: ISO 14443A, CSN, Secured Sector Data, MAD EM 4102	
Tamper	Optical switch			
Configuration	Windows Program AEreco: Card or RS485 deployment			
Temperature	Operating temperature: 0-55 °C; Storage: -30 – 65 °C			
Protection	IP54	IP65	IP54	IP65
Additional Products:				
Convexs Adapter	AX1014: (required when using reader AEpacks) AB350: (required when using XS readers)		Article Number: 7817401 Article Number: 7817010	
Convex	A vandal proof protector for the Surface and the Flush mount will be available soon.			

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