

# Invexs 190 readers

The Invexs readers combine modern design with advanced functionality. Unique multiple card reading technology makes the readers capable of simultaneously reading different card technologies, which is extremely useful during migrations or when a company uses a mix of different card technologies.

- Modern design, optionally with keys
- Suitable for all commonly used access control systems and technologies
- For outdoor use and resistant to extreme cold and heat
- Multiple output protocols



## Modern design

The modern, stylish look of the Invexs readers perfectly matches contemporary office design. The different models that are available cover a wide variety of situations and requirements. It is designed to fit to a doorframe.

## “Multiple reader” technology

Invexs readers are capable of simultaneously reading Nedap, MIFARE and DESFire EV1 cards. Among many other advantages, this functionality makes smooth migration possible. Different cards can be stored in a mixed database, meaning that there is no need to change all the data.

## Enhanced security

As standard, the Invexs 190 features an SAM (Secure Access Module) holder, which allows the

use of an SAM for key storage and execution of high-security encryption algorithms.

## Configuration and programming

Invexs readers are highly versatile in terms of their functionality and output, which can be configured to Wiegand, the RS485 protocol (AEOS-coded or 'plain') or to XS RF modulation. The Invexs 190 can be mounted to a metal surface without compromising detection range. Invexs readers are easy to configure and program. AEReco (AEOS REader COnfiguration) software, a special configuration tool for Invexs and other AEOS readers is used to generate the configuration file. This can then be deployed to the reader with a configuration card or using AEmon, a configuration program for AEOS AEPacks and software components.

## Invexs range

In addition to the Invexs 190, the Invexs 170 range is also available from Nedap.

### Technical specifications

Dimensions	L x W x H: 191 x 50 x 30 mm
Weight	Approx. 0.35 kg
Power consumption	12 VDC – 30 VDC, 160 mA @ 12 VDC, 80 mA @ 24 VDC
Environmental conditions	Temperature range: Operation: -20 - 55 °C. Storage: -30 - 65 °C Relative humidity: 10 - 93% (non-condensing)
Communication	- RS485 (encrypted AEOS or 'plain' protocol; user-definable) - Wiegand Data 0 and Data 1 (depending on configuration) - RF Modulator (120 kHz for AX1014 or AB350)
Inputs	4: open collector; buzzer and 3 LEDs
Detection range	Nedap: approx. 8 cm, MIFARE: approx. 4 cm, DESfire: approx. 2 cm
Wiring for	- RS485: 2 x 2 x 0.25 mm <sup>2</sup> shielded, max. 1000 m - Wiegand: 4 x 0.25 mm <sup>2</sup> shielded, max. 150 m - Optional: 4 x 0.25 mm <sup>2</sup> (LEDs, buzzer), 10-wire pigtail 3 m
IP rating	IP65

### Article number

	Type	Number	Keypad type	Number
MIFARE reader	M190	9945512	MK190B	9948422
MIFARE Nedap reader	MN190	9948392	MNK190B	9948449
MIFARE DESfire reader	MD190	9948406	MDK190B	9948457
MIFARE Nedap DESfire reader	MND190	9948414	MNDK190B	9948465
Spacer (cable guide)		9949887		