

# NVITE

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## quick reference guide

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# 1 Installation

## Safety instructions

The following safety precautions should be observed during normal use, service and repair:

- The NVITE reader may only be installed and serviced by qualified service personnel.
- Disconnect the power supply before (dis)connecting any wires, the reader is NOT hot-swappable, so when making or changing connections, power must be switched OFF.
- The cable shield shall be connected with safety ground and the metal case of the external device(s).
- To be sure of safety, do not modify or add anything to the reader other than mentioned in this installation guide or indicated by Nedap.

## Mounting instructions

The NVITE reader can be mounted to any surface, including directly to metal. See the picture below for details about the dimensions.

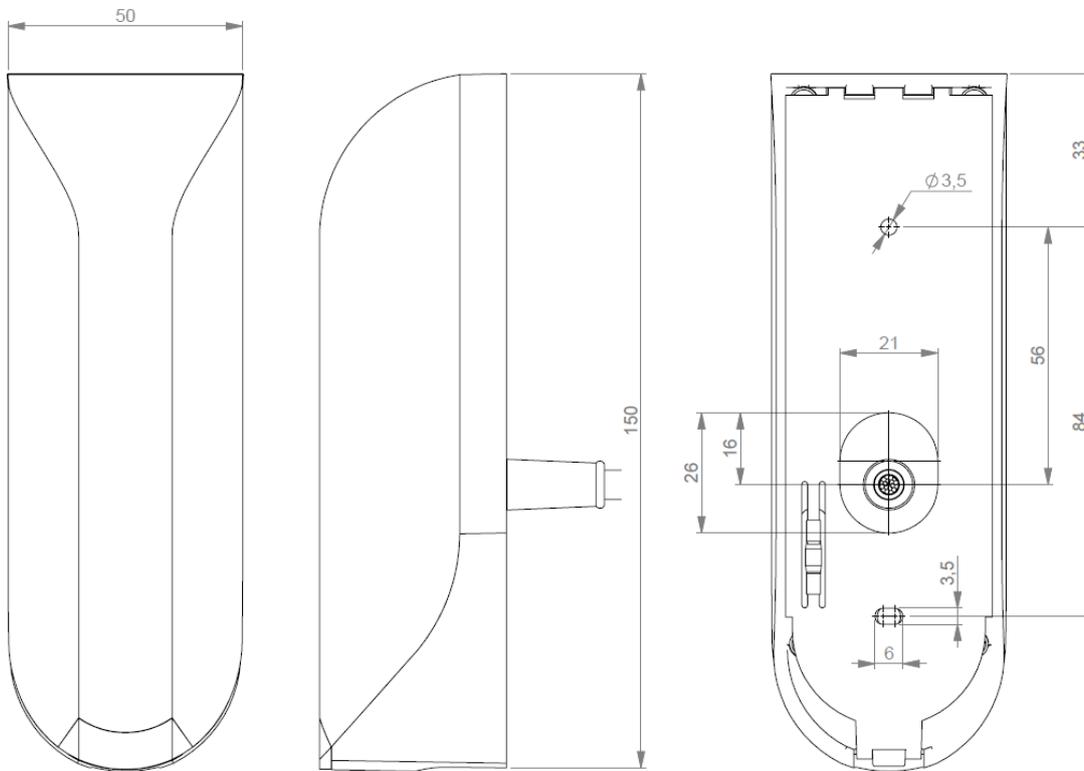


Figure 1: NVITE reader dimensions (mm)

Mount the base-plate on the required location.

1. Ensure that it is placed correctly covering the cable entry hole. The cable entry hole must be at least 11mm.
2. Properly fix the base-plate into its position using the 2 screws. When mounting on a stone or concrete wall drill 5mm holes for the plugs. When mounting on wood, drill with 2.5mm. Screws and plugs are included.

Install the NVITE reader onto the base-plate:

3. Feed the cable through the cable entry hole. Minimum cable bending radius 30mm.
4. Attach the top of the reader onto the base-plate.
5. Fix the assembly using the screw on the bottom.

## 2 Connections

The NVITE reader is supplied with a 5 meter (15 feet) shielded cable pigtail with 12 colored wires.

RED	Power supply 12 - 24VDC
BLACK	Power supply 0VDC, DC-Ground
BROWN	RS485 A (-)
GREEN	RS485 B (+)
GRAY	Data-0 / CLK
PINK	Data-1 / DAT
YELLOW	Tamper switch (normally closed)
GRAY/PINK	Tamper switch (common)
RED/BLUE	LED_UL_IN (UL = unlock)
WHITE	LED_NA_IN (NA = not authorized)
PURPLE	Nedap antenna interface. Connect to ANT
BLUE	BEEP_IN
SHIELD	Shield

### Notes

Cable shield shall be connected to the metal case of the external device(s).

Cable extensions shall only be made by means of shielded cable(s).

All shields of the shielded cable extensions shall be connected together and to the metal case of the external device(s).

## 3 USB

The NVITE reader features an USB interface for service, installation and firmware upgrade purposes. The Mini-USB connector is located on the bottom of the device and can only be reached when the bottom screw is opened and the reader is lifted away from the base-plate. This ensures that unauthorized modifications to the reader settings can be detected using the tamper switch.

### USB Driver installation

Make sure your computer is connected with internet. Connect the NVITE reader to your computer via the USB cable. The USB drivers may be installed automatically. In case you need to install the USB drivers manually, please go to the website [www.ftdichip.com/Drivers/VCP.htm](http://www.ftdichip.com/Drivers/VCP.htm) and download the VCP (Virtual Com Port) drivers. After successful installation of the USB drivers the reader will appear in the Windows device manager in "Ports (COM & LPT)" section.

### Notes

- While the USB cable is connected, the RS485 interface is disabled!
- The maximum USB cable length shall be < 2 meter.
- A shielded USB cable shall be used.

## 4 Reader configuration

The NVITE reader can be configured easily using the NVITE configuration software. This software tool can be downloaded from our partner portal <https://portal.nedapidentification.com>.

## A Technical specifications

Version	Comment
Part number	9566945 - NVITE reader
Dimensions	150 x 50 x 40 mm (5.9 x 2 x 1.6 inch)
Color	RAL9006 cover and RAL7016 chassis
Weight	0,5 kg (1.1 lbs)
Protection class	IP65 (approx. NEMA4x)
Material	Aluminum (Zamak5) chassis with polycarbonate cover
Operating temperature	-20 to +60 °C (-4 to +140 °F)
Storage temperature	-20 to +60 °C (-4 to +140 °F)
Relative humidity	10 to 93 % relative humidity, non-condensing
Power supply	12 to 24 VDC (from power-limited UL294 or UL603 listed power source)
Power consumption	0.4A @ 12 VDC, 0.2A @ 24VDC
Read range	Bluetooth low energy: up to 15 meter (may be restricted by mobile-app) NFC, LF proximity cards and smartcards: up to 5 cm
Barcode scanner	QR-code (QR1, QR2, QR micro), as well as most mainstream 1D and 2D barcodes
Operating frequency	Bluetooth low energy: 2.402 to 2.480 GHz NFC and smartcards: 13.56 MHz Proximity cards: 120 kHz
Supported RFID cards	120 kHz: Nedap + EM4200 + HID-PROX + AWID-LF 13.56 MHz: ISO14443A, MIFARE DESFIRE (EV1/EV2), MIFARE Classic, MIFARE Ultralight (C), MIFARE Plus (SL3), ISO15693, HID iCLASS, LEGIC Advant, LEGIC Prime and Sony Felica.
Communication interfaces	RS485, USB service interface
Communication protocols	CR/LF, OSDP
Relay output	No relay output
Input	2 TTL digital inputs for LED control, 1 TTL digital input for beeper control
Output	2 open-collector outputs (OSDP) Wiegand, Magstripe ISO7811/2 (clock & data)
Max. cable length	Fixed cable length of 5 meter (16.4 ft) included pigtail Wiegand 150 meter (500 ft) 22 AWG RS485 1200 meter (4000 ft) when installed properly
Tamper switch	Magnetic switch, normally closed
Standards	Europe R&TTE Directive 1999/5/EC USA: FCC Title 47 Part 15B and 15C Canada: ISED ICES-003 and RSS210 Safety: EN60950-1 EMC: EN301489 Telecom: EN330 330 and EN300 328 Human Exposure assessment: ICNIRP Guidelines, EN62369 and EN50364 UL294

## B Disclaimer

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## C Document revision

Version	Date	Comment
1.00	2020-02-04	Created