

# MACE READER MM (QR)

| people identification reader for smartphones

## KEY FEATURES:

- enables use of smartphones to identify people
- supports NFC, Bluetooth Low Energy, proximity- and smartcard technology and (optionally) QR
- operates with any access control system
- combines convenience and security
- easy set up



Nedap MACE is a platform that allows any access control system to use smartphones as access credentials. The platform consists of a cloud based service, readers and apps.

MACE apps can receive and contain multiple virtual identity credentials. These credentials are presented to MACE readers using NFC, Bluetooth Low Energy or QR. Virtual identity credentials are sent to the phone in a secured way from the MACE Server. The MACE Server accepts imports from 3rd party access control systems.

### MACE Reader MM

Multi technology reader to be used with MACE apps storing MACE identifiers. Supports Bluetooth, NFC, smart cards and proximity cards. The reader is small enough to be mullion mounted. The MACE Reader MM is configurable using a free downloadable tool that connects to the USB port. Amongst others, read range and output can be specified.

### MACE Reader MM QR

Multi technology reader to be used with MACE Apps with MACE identifiers. In addition to the MACE Reader MM, this reader includes a QR reader that enables reading QR-codes displayed on a smartphone.

### Easy integration

Like all Nedap systems, the MACE Reader MM and MACE Reader MM QR support a variety of well established industry-standard protocols, such as Wiegand, clock & data and serial connections like RS485. This enables seamless integration into any existing or new building access control system.

### OSDP

Based on RS485, the Open Supervised Device Protocol (OSDP) is an industry standard for secure communication of RFID readers. A specific firmware version is available to upgrade the MACE MM (QR) reader with OSDP.

### Applications

The MACE readers are designed to work in any access control applications where smartphones are to be used immediately or in the future. This applies to e.g. building access control applications, parking management systems and even event ticketing systems.

Technical specifications		MACE READER MM (QR)
Part number	9565523 MACE Reader MM 9565531 MACE Reader MM QR	
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	Aluminium (Zamak5) chassis with polycarbonate cover	
Operating temperature	-20...+60°C (-4...+140°F)	
Storage temperature	-20...+60°C (-4...+140°F)	
Relative humidity	10% ... 93% relative humidity, non-condensing	
Power supply	12 ... 24 VDC (from power-limited UL294 or UL603 Listed power source)	
Power consumption	0.4A@12VDC, 0.2@24VDC	
Read range	Bluetooth Low Energy: configurable up to 25 cm (proximity), 2m (short), 5m (medium) or 15m (long) NFC, proximity card and smartcards: up to 5cm	
Barcode scanner	QR-code (QR1, QR2, QR micro), as well as most mainstream 1D and 2D barcodes	
Operating frequency	Bluetooth low energy 2.402 – 2.480 GHz NFC & smartcards: 13.56 MHz Proximity cards: 120 kHz	
Air interface	120 kHz: Nedap proprietary encoding standard 13 MHz: according to ISO 14443/15693 2.45 GHz: according to bluetooth 4.0	
Communication interfaces	RS485 and USB2 service interface, additional interfacing options exist. Please consult your representative.	
Communication protocols	CR/LF, OSDP	
Relay output	No relay output	
Input	2 TTL digital inputs for LED control (RED/GREEN), 1 TTL digital input for beeper control	
Output	Wiegand, Magstripe (clock & data)	
Max. cable length	Fixed cable length of 5 meters (16.4 ft) included (pigtail) Wiegand 150 m (500 ft) 22AWG RS485 1200 m (3950 ft) when installed properly	
Cable specifications	Pigtail cable - 5 meters (16.4 feet) included Wiegand cable -150 meters (500 feet) 22AWG RS485 cable - 1200 meters (3950 feet)	
Tamper switch	Magnetic switch, normally closed	
Standards	Europe R&TTE Directive 1999/5/EC USA: FCC Title 47 Part 15B and 15C Canada: ICES ICES-003 and RSS210 Safety: EN60950-1 EMC: EN301489 Telecom: EN330 330 and EN300 328 Human Exposure assessment: ICNIRP Guidelines, EN62369 and EN50364 UL294	
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