

# RFID Access Control Terminal for IP-based Networks

## ID MAX50.10-xE (13.56 MHz)



### FEATURES

- Offline management of up to 9.000 users (Stand-alone operation)
- Optional Power over Ethernet (PoE) or external power supply
- AES-encrypted Ethernet-Data transfer
- Operates with ISO14443-A/-B and ISO15693 transponders
- Identification via serial number (UID, CSN) or freely configurable data area
- Real time clock & time zones
- Configurable event memory
- External relay optional



## System description

ID MAX50.10-xE is a cost effective alternative to traditional access control solutions. The fast Ethernet interface (10BASE-T / 100BASE-TX) allows an easy integration into IP-based network infrastructures with CAT-5 cables. The AES-encrypted data ensures a high system security and protects the access control infrastructure effectively against attacks by intercepting or tampering.

ID MAX50.10-xE is a complete and independently-working access control terminal for up to 9000 users. It combines the functions of an intelligent controller with Ethernet interface and a RFID smart card reader in one compact device. The dimensions are the same as those of a conventional RFID smart card reader. The ID MAX50.10-xE checks access permissions offline, without a live connection to a host system. The integrated real time clock allows the management of temporal restrictions with up to 16 time slots.

Events can be stored locally at the ID MAX50.10-xE in a configurable event memory. Alternatively, events can be immediately reported to a host system via Access notification mode. The event memory can be adapted to different data protection laws, but it can be also completely disabled.

Power is supplied via Power over Ethernet (PoE) according to IEEE802.3af or via an external DC power supply.

ID MAX50.10-xE supports passive transponder according to ISO / IEC 14443 type A and type B, ISO / IEC 15693 and communicates with NFC devices (ISO / IEC 18092). As an identifier, ID MAX50.10-xE can examine either the serial number (UID / CSN) or user-selectable memory areas of the transponder.

Because of the open software architecture and compatibility with other OBID<sup>®</sup> RFID readers, the device can be easily incorporated into various applications. That for, software development kits (SDK) for current operating systems and programming environments are available.

Typical applications for the ID MAX50.10-xE are in industrial and commercial installations. Each unit can be a part of a complex access control system with widely distributed access points. Furthermore it can also be used for single doors in small and medium-sized installations.

ID MAX50.10-xE is available in two versions:

1. **ID MAX50.10-RE**

This version has an internal relay and is suitable for the control of doors with medium security requirements.

2. **ID MAX50.10-E**

In this version the external I/O Extension Board **ID CPR.I/O-A** with 2 digital inputs and one relay can be connected. The external relay ensures maximum security, as it can be placed inside the area to be secured.

**Delivery:**

- ID MAX50.10-E resp. ID MAX50.10-RE
- Surface mount adapter for surface mounting or mounting on metallic surfaces
- Mounting instruction

**Accessories:**

**ID CPR.I/O-A:** I/O-Extension Board with one relay and two digital inputs (only for ID MAX50.10-E)

## TECHNICAL DATA

Dimensions	
Reader	84 mm x 84 mm x 22 mm
Surface spacer	78 mm x 78 mm x 18 mm
Housing	Corpus: Plastic ASA / Front panel: acrylic glass
Color	Corpus: white / Front panel: black
Weight	approx. 150 g
Protection class	IP 54
Operating frequency	13.56 MHz
RF Transmitting power	250 mW ± 2 dB
Supply voltage	Power over Ethernet (PoE), IEEE802.3af; alternative: ext. power supply 24V up to 48 V DC ± 10%
Current consumption	maximum 2.6 W (IEEE802.3af Powered Devices Class: 1)
Supported transponders	ISO 14443-A <sup>1)</sup> , ISO 14443-B <sup>2)</sup> , ISO 15693 <sup>3)</sup> , NFC <sup>4)</sup>
Antenna	integrated, approx. 70 mm x 70 mm
Interface	Ethernet 10BASE-T/100BASE-TX, Automatic MDI/MDI-X Crossover correction, TCP/IP protocol, IPv4
Cable specification	maximum 100 m CAT-5 cable
LED's	3 x (blue, green and red) with configurable function
Buzzer	integrated
Real time clock	24 h power reserve; Accuracy: ± 2 sec/day
Inputs / Outputs	<b>ID MAX50.10-RE:</b> 1 x Relay (normally open contact); contact rating: 24 V AC/DC 1,5 A <b>ID MAX50.10-E (with I/O-Extension Board ID CPR.I/O-A):</b> 1 x Relay (change-over contact); contact rating: 24 V AC/DC 1,5 A 2 x digital Inputs
Memory	FRAM for user data, 10 <sup>14</sup> write cycles EEPROM for configuration data, 1 Million write cycles
Reading / Writing distance	typical 3 up to 10 cm <sup>5)</sup>
Temperature range	
Operation	-20 °C up to +55 °C
Storage	-40 °C up to +85 °C
Relative air humidity	95 % (non condensing)

<sup>1)</sup> z.B. mifare® classic (mini,1k,4k), mifare® UltraLight, mifare® DESfire, Smart MX, my-d™ proximity, my-d™ move, SLE44R35S, etc.

<sup>2)</sup> z.B. SLE66CL, ST19XR34, RF360, etc.

<sup>3)</sup> z.B. I-CODE SLI, my-d™ vicinity, STM LRI512, Tag-it HFI, etc.

<sup>4)</sup> NFC Type 1, 2 and 4 in NFC Card Emulation Mode

<sup>5)</sup> Reading distances depend on the used transponders; here made statements relate on an inlet size of 76 x 45 mm (3.00 x 1.78 in)

## STANDARD CONFORMITY

Radio license	
Europe	EN 300 330
USA	FCC 47 CFR Part 15
Canada	IC RSS-GEN, RSS-210, RSS-212
EMC	EN 300 489
Safety	
Low voltage	EN 60950
Human Exposure	EN 50364
Environment	RoHS-2002/95/EC WEEE-2002/96/EC

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