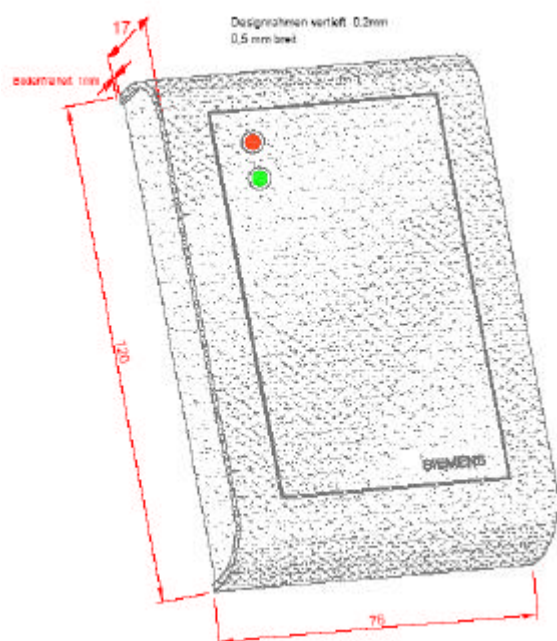


# SIEMENS



## Card reader AR6111-MX

## Installation

Clock/Data Interface Omron and Wiegand

# Safety regulations and warnings

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- The unit must only be used for the purpose intended by the manufacturer.
- The installation instructions must be kept to hand and made available to every user.
- Unauthorized changes and the use of spare parts and accessories which are not sold or recommended by the manufacturer of the unit could cause fire, electric shock or injury. Therefore, such measures will result in a renunciation of liability and the manufacturer will not accept any guarantee claims.
- The manufacturer's guarantee terms in the version valid at the time of the sale are applicable to the unit. No liability will be accepted for unsuitably or incorrectly set parameters – whether automatic or manual – or for inappropriate use of the unit.
- All repairs must be carried out by the manufacturer.
- The user is responsible for ensuring that the unit is set up and connected in accordance with the recognized technical regulations in the country of installation and any other guidelines valid in the relevant region.
- Before opening the unit, always switch off the power supply and take measurements to ensure that there is no power to the unit.
- If an operating display goes out, this does not necessarily mean that the unit is disconnected from the mains and has no power. If you are working on an open device, remember that live components may be exposed.

## Introduction

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Thank you for deciding to purchase the **AR6111-MX**. The ID card reader **AR6111-MX** in a wall switch housing is part of the new Access reader range.

The reader reads proximity ID cards of 13.56 MHz technologies:

**ISO14443 Type A** - like Mifare® 1k, 4k or UltraLight, my-D proximity (SLE55Rxx),

**ISO14443 Type B** - like my-C (SLE66CL160S) and

**ISO15693** - like my-D vicinity, I-Code SLI, TagIT-HFI.

The card number will be transmitted to the Access control system for processing.

# Approval

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If used according to the instructions, this radio system meets the basic requirements of article 3 and the remaining applicable conditions of the R&TTE directive (1999/5/EG) of March 1999.



Equipment Classification according to ETSI EN 300 330: Class 2

## **FCC ID: S4OAR6111-MX**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

# Technical specifications

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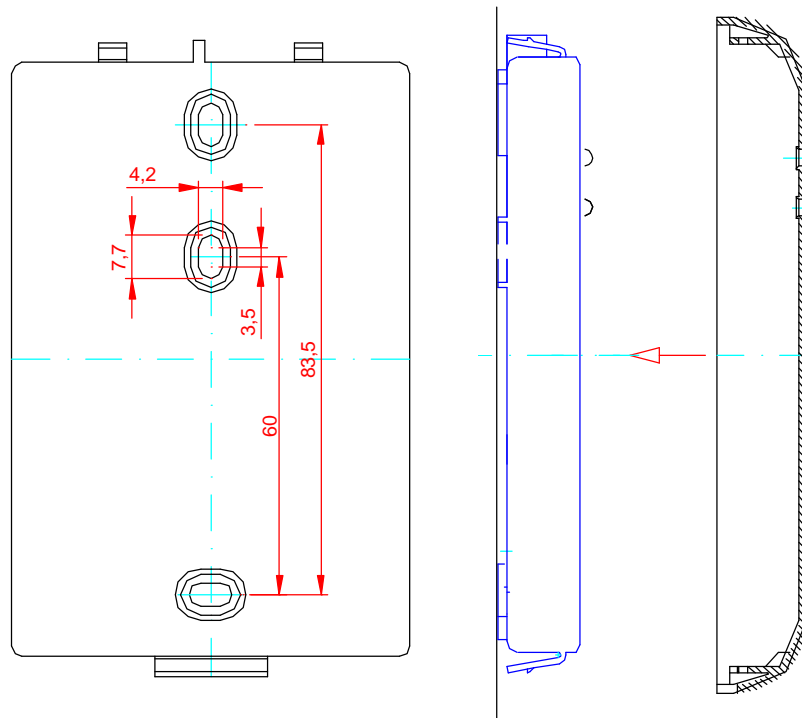
Housing	plastic (potted electronic)
Color	gray (like RAL 7004)
Degree of protection	IP 65
Power supply	9 - 15 V DC
Power consumption	max. 2,6 W
Temperature range	-25 °C to +60 °C
Relative air humidity	95% (no dew formation)
Antenna	internal
Operating frequency	13,56 MHz
transmitter power	200 mW $\pm$ 2 dB
Qualified Transponders (read serial number)	<b>ISO14443A:</b> Mifare Standard 1k and 4k (UID, S/B, MAD), Mifare UltraLight (UID, B), Mifare DESfire (UID), my-D proximity (UID, B) <b>ISO14443B:</b> my-C (SLE66CL160S) (UID) <b>ISO15683:</b> my-D vicinity, I-Code SLI, TagIT HFI, STM LRI512 (all UID)
connecting cable	50 cm (LiYY 12 * 0,2 mm <sup>2</sup> )
Transducer	1 x LED red 1 x LED green 1 x beeper
Digital Inputs	4 (maximum cable length 3 m)
Interfaces:	Clock / Data - Magnetic stripe format - Wiegand RS232-TTL (for service only)

# Installation

The reader is designed to be wall-mounted on or without flush-mounting boxes.

**Notes:**

- The reader should not be mounted directly onto conductive materials, such as metal surfaces, metal frames (reinforcement) or metal-plated surfaces, as these surfaces will reduce the reader's range. The clearance to such surfaces should be at least 30 cm.
- The distance between readers of the same design should not be less than 30 cm.
- Before final installation, the planned installation site should be checked for suitability.



# Connecting the reader

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Color	Function	Description
red	Vcc (9 - 15 V DC)	power supply
black	Ground*	
green	Data-/Clock (Data / Data0)	Data-/Clock Interface
white	Data-/Clock (Clock / Data1)	
violet	Data-/Clock (CLS / Card Present)	
grey	LED green	digital inputs **
brown	LED red	
yellow	Beeper	
blue	Hold	
orange	RS232-TTL (Rx)	Service -Interface
white / black	RS232-TTL (Tx)	
white / brown	- N.C. -	

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## Notes:



*\*) If an external power supply is used the ground signal from the power supply and the host must be connected.*

*\*\*) The digital inputs can only be connected to Ground. Any connection to external voltage might damage the unit!*

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# Function and Functional Testing

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## Digital Inputs:

LED green:	Activates the green LED while the input is switched to ground
LED red:	Activates the red LED while the input is switched to ground
Beeper:	Activates the beeper while the input is switched to ground
Hold:	While input "Hold" is switched to ground the reader doesn't accept any Transponder

## Configuration Mode:

After the power supply is switched on the reader starts his configuration mode for 8 seconds. The configuration mode is indicated by alternating blinking of the red and green LED.

While the configuration mode is active the reader could be configured with a special ConfigCard. In this mode the reader accepts only ConfigCards. Please contact your supplier to get further information's about ConfigCards.

After the configuration modes has finished the reader changed into the normal operation mode.

## Normal Operation Mode

In the normal operation mode the LED and the beeper are controlled by the digital inputs.

When the reader detects a transponder the data where send out at the clock/data interface and the beeper indicates the detection with a short single beep nonrecurring.

To repeat this a read action the transponder must leave the detection range of the reader for more than 1,5 seconds.

If the Transponder data length doesn't match to the reader configuration the beeper indicates an error by a short double beep. In the case no data's are send out at the clock/data interface.

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