



PROXIMITY CARD READER

CZ-EMM2

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The CZ-EMM2 proximity card reader - also referred to as the "SATEL reading head" - is a device used in access control systems. It is designed for reading the proximity card code. The reader interfaces with the CA-64 SR expander of proximity card readers.

1. READER DESCRIPTION

The head transmits data (i.e. the read-out card code) in the **EM-MARIN** format. It has a built-in two-color LED indicator (emitting red and green light) and a buzzer, which serve the signaling purpose. The signaling mode as well as situations when the signaling is triggered depend on the control device the reader is connected to. Electronic circuits of the head are coated with epoxy resin to protect them against moisture. A multicore cable for connecting the reader to the control device is led out from the head housing (see HEAD CONNECTION).

2. SUPPORTED CARDS

The reader supports EMCARD type cards, available from the head manufacturer, which are designated by the KT-STD-1 symbol in SATEL's business offer.

3. CARD READING

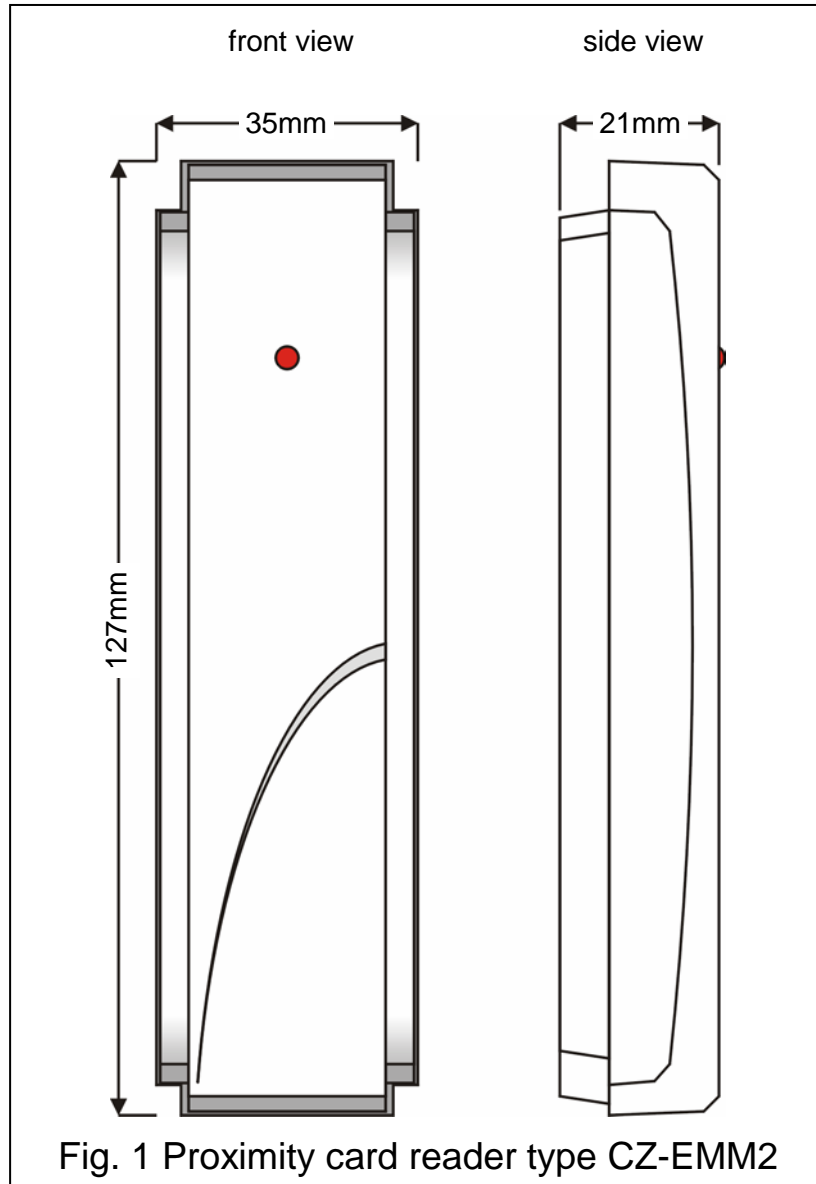
For the head to read out the coded number of a card, the card must be brought near to the reader within a distance of approx. 10cm for at least 0.5s. When read out, the card number is sent to a control device (e.g. CA-64 SR expander) which signals that the card code has been read out (with the head LED / buzzer) and initiates appropriate actions. A next card code can be read immediately after moving the previous card away from the reader. In case of a failure to remove the card away from the reading zone, the card code will be repeatedly read and sent to the control device. The control device can take different actions, depending on whether the card has only been brought closer for 0.5s, or held still for approx. 3s.

4. INSTALLATION

The CZ-EMM2 proximity card reader is designed for indoor installation. The head should be mounted straight on the wall, vertical installation being recommended. The reader should not be exposed to a direct contact with water.

Where several heads are used in the system, the distance between them should be at least 50cm.

Note: *If the head is mounted on metal surface, the reading range will be reduced.*



5. READER CONNECTION

The reader hookup is to be made with the use of a typical cable (e.g. DY 8x0,5) according to the table below. The length of the cable connecting the head with the control device is not to exceed 30 meters.

Cable color	Function	Designation of control device terminals	
		Head A	Head B
red	head power supply	+GA	+GB
blue	ground	COM	COM
green	data	SIGA	SIGB
brown	head operation blocking (where the heads operate in close vicinity to each other, to eliminate mutual interference)	DISA	DISB
gray	red LED control	LD2A	LD2B
pink	green LED control	LD1A	LD1B
yellow	buzzer control	BPA	BPB
white	presence control (tamper)	TMPA	TMPB

Table 1. Connection of CZ-EMM2 reader cables to control device terminals.

Note: The CA-64 SR expander terminals designated TMPA and TMPB will appear on laminate boards in version 1.6.

When connecting the head to an earlier version of expander (1,5 or earlier), you can leave the white cable disconnected or short it to the common ground. Option READER PRESENCE CONTROL in the settings of expander should be disabled.

To control the presence of the reader, if necessary, you can use the white cable of the reader and panel control zone "24H TAMPER" type. This cable is connected to the reader common ground via 1,1k Ω resistor and it can be used to make a tamper circuit, which is to carry out reader presence control. It is necessary to program the proper type of the zone and make sure that the resistance value is as require. For the EOL type zone connect in series 1,1k Ω resistor with the white cable so as to make it possible for the control panel to recognize 2,2k Ω resistance.

6. TECHNICAL DATA

Data transmission standard	EM-MARIN
Supply voltage	10.5...14V DC
Maximum current consumption	55mA
Head operating frequency.....	125kHz
Head operating temperature range	+5...+40°C
Head operating humidity range	0...95%
Head dimensions	127x35x21 mm

The latest EC declaration of conformity and certificates are available for downloading on website www.satel.pl



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