

# PROXIMITY CARD READER CZ-PRD



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The CZ-PRD proximity card reader (manufacturer's designation PR-A03) - also referred to as the „reading head” - is a device used in access control systems which is designed for reading the code of proximity cards. It works together with the CA-64 SR proximity card reader for the CA-64 alarm control panel and is capable of working with the DALLAS type interface.

## READER DESCRIPTION

The CZ-PRD head is fitted with a LED control flashing in two colors : red and green, and with a built-in buzzer - which serves for signaling purposes. In fact, the diode emits three colors of light, as the simultaneous flashing in red and green produces a yellow-orange color. The head has the option to disable the mechanism of simultaneous flashing in two colors - when two colors are set, the LED color will be green. The electronic parts of the head are covered with epoxy resin, which acts as moisture repellent. Connection between the head and the control device is provided by means of a multi-core cable led out from the head housing. The functions of leads as well as the control method are described in the section „HEAD CONNECTION”. The way of signaling and the situations which cause activation of the signaling depend on the control device to which the reader will be connected. The data transferred by the head (i.e. the card code readout) are in the „**TOUCH MEMORY**” format (transmission type DS1910A). The head may be used in control systems instead of the, so-called, „DALLAS chips”.

## USING THE CARD READER

In order to use the reader bring the card for about half a second to within a distance of 12 cm from the reading head. The head will recognize presence of a proximity card within the electromagnetic field generated by itself and will make an attempt to read out the coded number of the card. If the coding scheme is known to the head, the card number will be read out and sent to the control device (e.g. the CA-64 DR expander). The way of further operation of the head (signaling) depends on the software of the system, in which the head is functioning. The next card code can be read out as soon as the previous card is withdrawn from the reader. If the card is not removed from the reading zone, its code will be repeatedly read out and sent to the control device.

## CARD TYPE

The reader can work together with the EMCARD type cards, available from the head manufacturer, which are designated in the SATEL quotation with the symbol KT-STD-1.

## INSTALLATION

The proximity card reading head of the CZ-EMM type is designed to be mounted directly on the wall. If there are a few heads in the system, the distance between them should be at least 50cm.

**NOTE:** Do not mount the CZ-EMM reading head on a metal surface.

## READER CONNECTION

The reader hookup is to be made with 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.

CZ-PRD type head cable designation	Cable color	Function	CA-64 DR expander designations	
			Head A	Head B
+V	red	head power supply	+GA	+GB
GND	black	ground	COM	COM
D0/Sig	green	data 0	SIGA	SIGB
D1	white	data 1	not used	not used
Led-G	orange	LED green color control	LD1A	LD1B
Led-R	brown	LED red color control	LD2A	LD2B
BEEP	yellow	buzzer control	BPA	BPB
Hold	blue	head operation blocking	not used	not used

## CONTROL DESCRIPTION

**+V** - supply voltage input; permissible voltage range: 6...15V DC

**GND** - ground

**D0/SIG** - data signal output; data format DALLAS (Touch Memory - DS1990A); output signal parameters are as for standard TTL signal.

**D1** - not used

**Led-G** - input controlling the **green color** LED; input energized with +5V voltage causes the LED to come on; input 0V - the LED is off

**Led-R** - input controlling the **red color** LED; input energized with +5V voltage causes the LED to come on; input 0V - the LED is off

**BEEP** - input controlling operation of the buzzer; input energized with +5V voltage generates a sound signal; 0V - no sound signal.

**HOLD** - not used

### Notes:

- *No cable connection is treated as energization of the given input with +5V voltage (TTL logic-1 level).*
- *Three electrical cable loops are provided at the rear of the head housing (red, green and yellow) which serve to control the operation of external signaling - in case of joint work with the CA-64 DR expander, these loops must be cut and insulated (the manufacturer does not recommend cables to be cut at the very base of the housing).*

## TECHNICAL DATA

Supply voltage.....	DC 6...14V
Maximum current consumption .....	30mA
PR-A03 head dimensions.....	150x46x22 mm
Head operating temperature range .....	-20...+55 °C
Head operating humidity range .....	0...95%
Head operating frequency .....	125kHz
Data transmission standard (DALLAS).....	DS1990A