

PROTECTION SYSTEM SAMBA CIR

Application of protection system SAMBA CIR:

System SAMBA CIR is intended for purposes of circular security of selected objects or for similar applications - see below. Mentioned system serves for detection of especially moving persons within distance minimally 10 m from the SAMBA CIR device. This system SAMBA CIR is intended for observation of circular area with minimal diameter 20m around cars, smaller constructions, techniques etc. After detection of person (after alarm activation), the system transmits information into receiving module - standardly into receiver SAMBA R or generally into alarm system equipped with technical device, which is able to receive and evaluate information from the system SAMBA CIR.



Main Technical Parameters

Supply voltage:	9,6V
Battery capacity:	3600mA/hod
Current consumption:	Initialization after switching-on: Nominal 0.028A, max. 0.035A
Transmission:	Nominal 0.120A, max. 0.135A
Standby and observation mode:	Nominal 0.008A, max. 0.010A
Initialization time after switching-on:	50s (it is possible software adjustment)
Time delay after alarm:	8s. (it is possible software adjustment)
Transmitting frequency:	from 405 MHz to 470 MHz (it is possible software adjustment of 128 transmitting frequencies).

Max. power:	0,1W - 4W
Max. range (transmitter):	11 km
Number of detecting PIR sensors:	6
Observation field:	circular, 360°
Battery charging:	Standardly SAMBA N8
Operating temperature:	from -30°C to 55°C
Storage temperature:	from -40°C to 70°C
Dimensions:	160 x 160 mm (without connected antenna)
Weight:	1,8Kg
Environmental protection:	IP67

Content of transmitted information:

Transmitted information about the system includes:

- parameter ID - which represents identification of device, which is connected to transmitter (it is possible to use more systems for guarding e.g. SAMBA T). In the case of PIR sensors using, it is signature of using of PIR sensor.
- parameter about the alarm activation
- parameter of PIR detector position in SAMBA CIR device,
- parameter about manipulation with the unit e.g. in the case of theft,
- parameter about battery state - it indicates low battery state, respectively voltage drop to 8.2 V. In this case the battery charging is required.

SAMBA CIR unit includes six PIR sensors for total coverage of defined area. Sensor positions are numbered. PIR No.1 is situated near the connector for charging and numbering continues forwardly anticlockwise (at top view on the device).

Description of Receiving unit SAMBA R

Receiver SAMBA R (below only receiver) displays received data from detectors SAMBA T (below only detectors) on two-line or four-line display (from below illuminated). The receiver displays number of activated detector and activation reason. The receiver was designed for simply and minimal control. After switching-on of the power, the receiver is immediately ready for use and it isn't necessary to perform another operations. Two buttons on the front panel allow to highlight the activation of acoustic tone or to activate the display. The receiver delivers all reports automatically, otherwise the display is disconnected. The receiver can be linked with PC and obtained results can be recorded by means of SW SAMBA into alarm databases and to transfer into PCO etc.

Disturbance can be identified directly in maps. Universal 14-pin connector serves for interconnection with PC as terminal, for upgrade SW in processor, for external feeding and battery charging. It's supplied version with 9-pin connector CANON too.

SAMBA R evaluates these alarms:

PIR1 - PIR6 while using of system SAMBA CIR - circular protection, can be recognized disturbance direction **1 - 6**

SAMBA R evaluates these technical parameters:

Tilt change **N**

Detector was turned **N**

Detector operates OK "detector is technically in order" **K**

Low battery. **B**

Detector is unavailable **?** (from the last signal elapsed time interval longer than 15 minutes)

Main Technical Parameters:

Frequency range: 405 - 470 MHz - 112 programmatic selectable channels
- 16 switch channels Frequency stability: +/- 2ppm
Power can be selected in accordance with installed transmitting module, for both versions optional by 5 mW.

Frequency stability:	+/- 2ppm
Sensitivity:	-115dBm at channel distance 12.5kHz -117dBm at channel distance 25kHz
Communication interface:	standard RS 232
Number of attended sensors:	64 (in the case connection with PC this number is unlimited)
Number of indicated states:	12
Internal power supply:	9,6V with battery capacity 1800mAh
External power supply:	9V - 15V DC *
Operating time for one charging cycle:	15 - 18 hours
Operating temperature:	from -30°C to +55°C
Storage temperature:	from -40°C to + 70°C
Environmental protection:	IP65
Dimensions:	220 x 105 x 40 mm
Weight:	640g
Accessories:	Antenna, RS232 cable, charger
Additional elements:	Container, belt clip, clip for fixed mounting
Storage:	Case, protection IP55, black or camouflage

Receive of the message from detector.

Display is switched on. The numeric code of the received message is displayed on the second line after the contact with detector. This numeric code is displayed under appropriate ordinal number. Description of particulars codes:

Code Signification

K Periodic message about detector's condition.

1 Activation of PIR sensor in system SAMBA CIR no.1

2 Activation of PIR sensor in system SAMBA CIR no.1

3 Activation of PIR sensor in system SAMBA CIR no.1

4 Activation of PIR sensor in system SAMBA CIR no.1

5 Activation of PIR sensor in system SAMBA CIR no.1

6 Activation of PIR sensor in system SAMBA CIR no.1

N Alarm – Tilt change, detector was turned

B Alarm – Low battery,

? Detector is unavailable (from the last signal elapsed time interval longer than 15 minutes)

Together with roll of the code is generated also acoustic signal for run 1 s and also is transmitted message to superior computer by the line RS 232. Acoustic signal serves for operators warning. After turn on of the receiver is acoustic signalization set to "SILENT MODE". Via the button PIEZO ON/OFF is acoustic signalization switched on. With repeated pushing you can change the modes.

Displayed code stays on the display for c. 10 seconds. Sign "-" is displayed after pass of this time. When receiver do not receive message from the detector for a longer time than 15 seconds, is displayed sign "?". This will stay on the line until the receiver obtains other message from the detector.

Operation modes

Receiving unit can operate in PIEZO and SILENT MODE.

PIEZO mode – acoustic signal and light display when is message received.

SILENT mode - only light the display when is message received

Message transmitting to superior computer

Serial line RS232 serves for communication with superior computer.

For communication, use only cabling of SAMBA system supplier.

Description of Charger SAMBA N8

The charger SAMBA N8 is determined for charging of accumulator assemblies NiMH (9.6V) in capacities from 1200 to 2500mAh. In the concrete, this charger is determined for charging maximally of nine pieces of transmitter SAMBA T and receiver SAMBA R (in practice 8 x SAMBA T and 1 x SAMBA R). Further, the charger allows to supply the receiver SAMBA R in the course of operation. The charger is powered from supply network 230V/50Hz or it is possible to use independent source with voltage +15 + 36V/3A.



Summary of functions

- charging process is controlled by means of microchip for each charging channel
- test cycle at the start of charging for recognition and indication of defective assemblies recognizes short-circuited cell, electronic protection against reversing of polarity
- state of battery charge before initiation of charging isn't important
- battery state is checked by means of microchip during the whole time charging
- protection stages by measurement of differential voltage, L1U switch-off and timer are integrated, optimal indication of state by means of LED diodes
- switch-over to pulsed charging for capacity storage is automatic. Setting of charging time 1 - 4 hours (in the case of reservation at producer).

Signaling:

Main Switch – ON/OFF

- Luminous Green – line voltage is switched on, charger is working.
- Not luminous green – check the FUSE.

Red LED (1 - 8, CHARGER SAMBA R):

- Luminous LED – Receivers, transmitters (further only batteries) are not connected
- Luminous LED, batteries are connected – maintenance state
- Luminous LED, batteries are connected – failure, defective contact, defective cell, contact producer.
- Blinking LED – charging process.

Yellow LED

- ADAPTER SAMBA R – the connector is determined for charging of the receiver.
Cable is a part of SAMBA R Kit. Power supply 12V / 1A

Green LED

- CAR ADAPTER – the connector is determined for supply fro independent power supply.
Cable is a part of SAMBA N8 Kit. Input power supply + 15 ÷ + 36V/3A.

Main Technical Parameters:

Input voltage:	230V/50Hz
Independent source:	+15 + 36 V / 3A
Power:	55 VA
Output voltage:	ADAPTER SAMBA R 12V/1A
Charging time:	283minutes (the producer can set in interval from 70 - 283 minutes)
Environmental protection:	IP55
Dimensions:	120 x 220 x 80 mm
Weight:	3000g

For more information, please contact:



OMNIPOL a. s.
Nekázanka 11, 112 21 Prague 1
Czech Republic

Phone: +420 224 011 120, Fax: +420 224 012 240
E-mail: omni25b@omnipol.cz, <http://www.omnipol.cz>

