

SPECIFICATION AND USER'S MANUAL

type of the device: a 2-channel NRP-102A stationary sender
It is designed to cooperate with the receivers: OPC, IDO 04/99, IDO 500 and the VIRGO 430 monitoring station.

TECHNICAL PARAMETERS

- type: stationary
- class: C
- frequency: 433,92 MHz
- transmission: coded (the KeeLoq hopping code by Microchip Technology)
- sending power: 10 mW
- range: 1km*
- voltage supply:
nominal: 12 V DC
maximal: 10-15 V DC
- power consumption:
static: 2,5 mA
maximal: 110 mA
- capacity:
sabotage output (SAB): 50mA /12V DC
- number of channels: 2
- way of releasing: unshorting the K1 or K2 input
- number of transmissions (repetitions): 1 or 2
- temperature operating range: -20 to +40 °C
- security level: IP 67
- antenna socket: BNC 50 Ohm
- dimensions (mm): 76(110)*61*33



* The above range concerns the open space (without any obstacles, when the receiver and the remote control can "see each other"). If there are any obstacles between the receiver and the sender, one must assume that the range would be reduced: for wood and plaster it would be 5-20% lower, for bricks 20-40% lower, and for reinforced concrete 40-80% lower. If there are many obstacles we advise to use retransmitters. If there are metal obstacles, using the radio systems is not recommended.

**The device meets the requirements of the directives EMC 89/ 336/ EEC
and RTTE 1999/ 5/ EC.**



Use - the sender transmits by radio way an alarm signal from a patrolled site to a receiver.

Operating - The NRP 102A stationary sender works with the hopping code. The sender has a switch which sets the number of repetitions for each event. The voltage supply is connected permanently. The sender has two independent inputs. You can release any of them by unshorting it. It means that during normal operating the inputs should be shorted and during alarm – unshorted. Shorting the input does not send a signal. Shorting the signal to ground does not make the sender react.

Each unshorting on the given input results in sending one or two (depending on the position of the "number of transmissions" switch) packs of signals with duration time 2s with 1s interval. Duration time of the whole transmission for one channel is 2s or 5s. The position of the switch which allows for choosing the number of transmissions is checked after each supply connection. After changing the switch's position, disconnect the sender's supply and then connect it again.

There may happen a situation that during sending a signal which concerns unshorting one of the inputs from the ground, the state of the other input also changes. In such case, the information about unshorting the second input will be sent after finishing the previous transmission. To activate the next transmission, short the input to ground and then release it by unshorting it.

The inputs are checked when the supply is connected. If any of the inputs is unshorted, a signal will be sent.

The sender has a constant-voltage regulator which does not allow for diversification of the sending signal's power (and, simultaneously, the achieved range). The set is also protected from the voltage reversal. The TEST button is useful for example when entering a sender to the station's memory – when two transmissions are to be sent. The lighting D1 diode signals the transmission.

The contacts of the SAB button lead to the terminal strip. You can connect them to the local alarm central input. This way you will be able to get information about intervention inside the sender.

