



# Anarya Alarm®

RFID object protection system for guarding materials, automobiles, construction machinery, etc.  
Automatic control of PTZ cameras, very easy installation

## About the system

The Varya perimeter system can also be used to guard objects and objects in open space. This item protection system mode is branded as **Anarya Alarm**. The Anarya Alarm system uses the same FLU central unit, the same FLM monitoring units and the same FLA or FLG detectors as the Varya Perimeter system, but in a different configuration. If the detectors of the Anarya Alarm system are in "Guarded" mode, any movement or manipulation of the FLA detector will trigger an alarm.



fig. 1 - FLA-07 detector

The detectors communicate by radio (868 MHz) with the receiving unit (FLU or FLM) with a standard period of 3 seconds in a "star" topology. Installation of the system is very easy and fast, the system does not require maintenance if regular revisions are observed. The batteries in the detectors are replaceable and their capacity is about 8 years. The ANARYA Alarm system enables communication with EMS systems and with rotating PTZ cameras or drones, which it precisely guides to the location of the breach. The outputs of the Anarya system can be integrated into additional monitoring systems, e.g. using the SNMP-2 protocol.



**FLA-07 detector**

The detector is suitable for installation in an industrial environment. Installation is carried out using two screws or screws, with which the detector is fixed vertically to the guarded object. Installation can also be done by gluing or using the NEO FLA-07 magnetic pad. The NEO pad is suitable for installation in an industrial environment on metal objects. Battery life is approx. 8 years. Operating temperatures: -25°C / +70°C. The detector and FLA are waterproof, with IP67 protection. Dimensions: 163\*52\*42 mm.

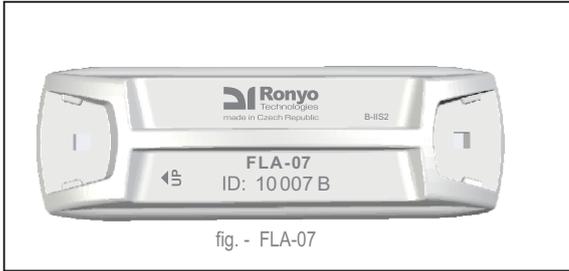
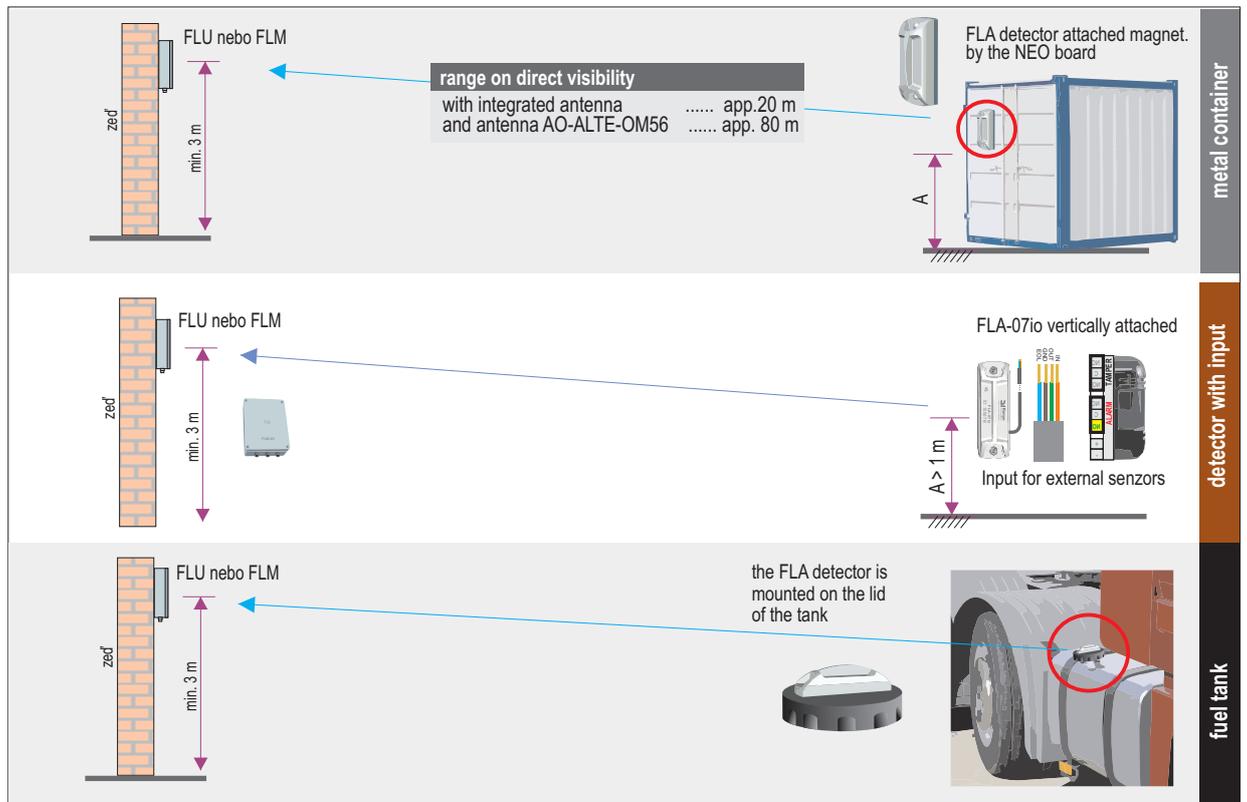


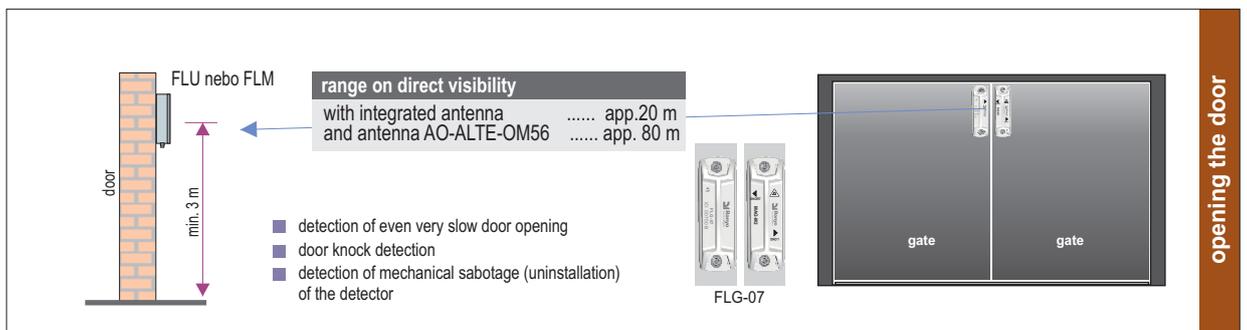
Fig. - standard FLA-07 detector in SW GUARD mode



Fig. - FLA detector with SMA connector for an external antenna



**FLG-07 detector**



## Limits of Anarya system

- Max number of all modules (tags, etc..) is **250**
- Max range of interval of ID detectors in object protection (GUARD) = **200**
- Max number of tags in the radio range of one FLM unit: **50** \* pcs (when tag transmission period = 3 s)
- Max number of tags in the radio range of one FLM unit: **100** \* pcs (when tag transmission period = 6 s)
- The maximum number of FLM units is **10**.
- The maximum number of FLQ units is **4**. (from FW FLU: v4.7.27)
- The maximum number of FLE units is **6**. (from FW FLU: v4.7.38) new
- The maximum number of areas is **200**. (from FW FLU: v4.7.13)
- The maximum number of declarations for SNMP communication is **80**.
- The maximum number of SNMP clients is **3**.
- The maximum number of Ronyo-Server clients is **3**.
- The maximum number of PTZ cameras is **64**.
- The maximum number of presets for PTZ cameras (total) is **80**
- The minimum time between two alarms in one sector is **45 s**.
- The min battery voltage of FLA-06 - **2.6 V**.
- The min battery voltage of FLA-07 - **2.2 V**.
- The min battery voltage of FLG-07 - **2.6 V**. (from FW FLU: v4.7.05)
- Tag types for ANARYA system: **FLA-07, FLG-07, FLA-07io, FLA-07s, FLA-07b, FLA-06, FLG-06**

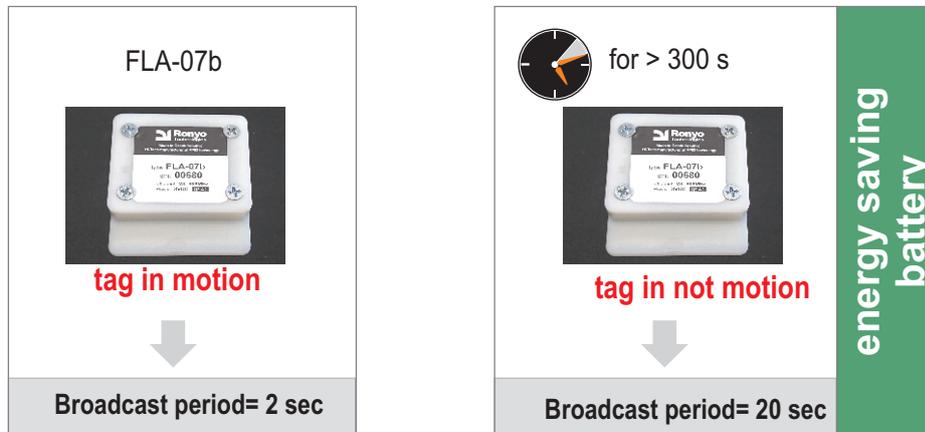
\* .... Note:

Tags broadcast randomly. Their transmission can be completely interrupted by the transmission of another tag. Therefore, one can only statistically calculate the probability of how many successive transmissions will be interrupted by the transmission of other tags. The system operator must consider how long a blackout in receiving messages (due to these disturbances) can be tolerated.

## Savings period for broadcasting FLA tags

FLA type tags support two broadcast periods.

- Standard transmission period "**PER**" (Default = 2 s. This parameter can be changed by the user)
- Energy-saving transmission period "**LEP**" (Default = 15 s. This parameter can be changed by the user in the range of 2-60 s).



If tags are mostly in not motion and have a Energy-saving transmission period "LEP" set, this setting affects:

- Their battery life. The service life will be significantly extended.
- Max number of tags within range of one FLM unit (see \*). This max quantity limit will increase significantly.

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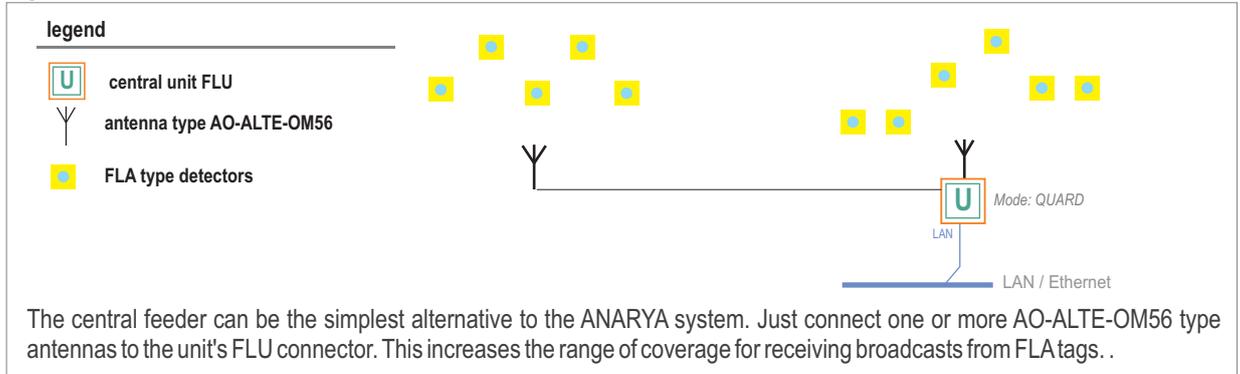


## Anarya Alarm system architecture

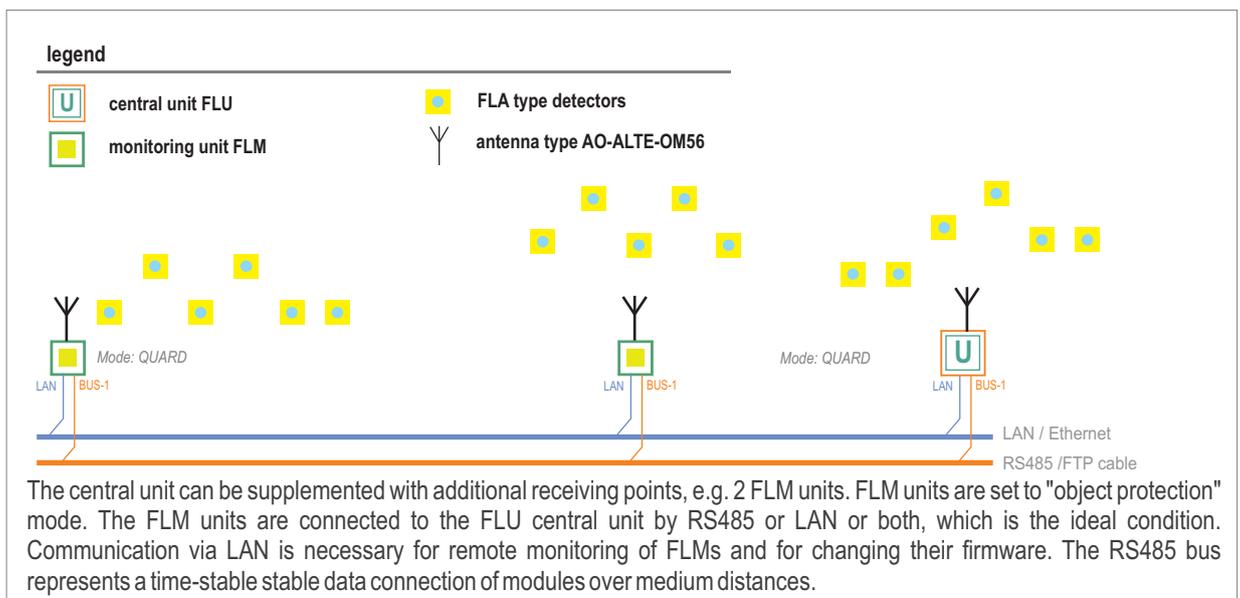
The basis of the Anarya Alarm system is optionally one of the variants listed below.

- only the central FLU unit supplemented with the AO-ALTE-OM56 antenna
- only central FLU unit supplemented by 2 antennas connected via SMA-splitter (2 reception points)
- central FLU unit supplemented by an antenna with an additional FLM unit (2 reception points)
- central FLU unit supplemented by an antenna with several FLM units (several reception points)

### System architecture: FLU + 2 antennas



### Architektura systému: FLU + 2x FLM



#### Antenna GSM-TG09



##### Internal omnidirectional default antenna

- 868 MHz, gain = +2 dBi,
- dim: 72 mm,
- SMA-connector

#### Antenna AO-ALTE-OM56



##### External omnidirectional gain antenna-

- 868 MHz, gain = +7 dBi,
- dim: 756 mm,
- N-connector (f)

We recommend using this external antenna for the ANARYA system.

For the antenna, it is necessary to order a cable of the following type: AO-KANS-03

manufacturer:



Ronyo Technologies s.r.o.  
Česká 3195/47  
700 30 Ostrava Zábřeh  
Czech Republic  
www.ronyo.eu



### FLA-07b detector for guarding paintings

The FLA-07b detector is used to guard paintings. The installation is done easily by inserting the detector into the back of the painting's frame. The installation is completely non-invasive and the artwork cannot be damaged in any way. The detector's sensitivity can be adjusted by software so that the detector detects not only manipulation with the painting but also finger touches on the canvas. The detector's dimensions are 57\*(49+15)\*14 mm. This detector allows you to turn on the transmission saving mode (when the detector is motionless), which ensures a much longer battery life.



fig. 17a - FLA-07b detector installed on the exhibit

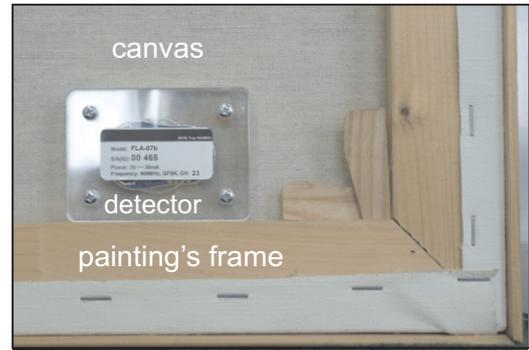


fig. 17b - FLA-07b detector in the painting's frame



fig. 17c - FLA-07b detector

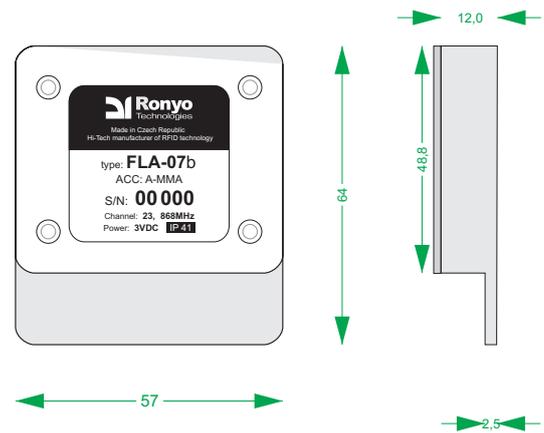
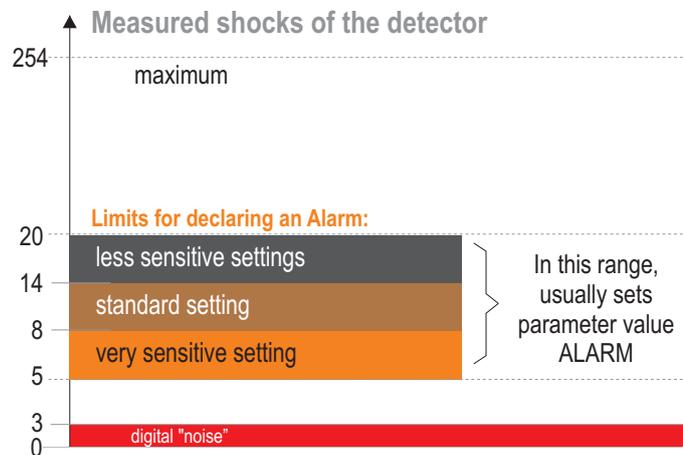


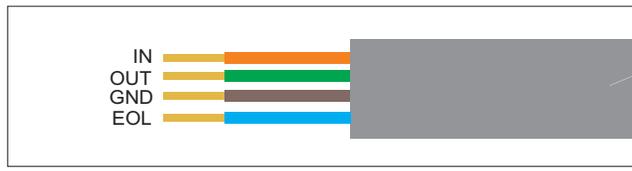
fig. 17d - dimensions FLA-07b

### The importance of measuring ACC values of the FLA-07b detector



## FLA-07io Description of interface

The FLA-07io detector can be used in the Varya Perimeter system (in synchronized token mode) or in the Anarya Alarm system (in unsynchronized beacon - GUARD mode).



cable conductors of FLA-07io



FLA-07io

### Description of conductors

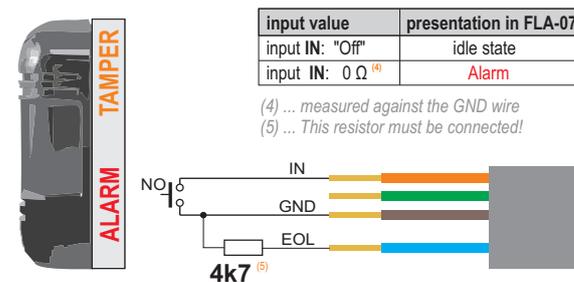
IN	orange	input binary	input inactive = idle state	input active <sup>(1)</sup> = Alarm
EOL	blue	input of double balance	input 4k7 = idle state, input 14k7 = Alarm	see table no. 4a for more details
OUT	green	output of open collector	output inactive = open collector	output active <sup>(2)</sup> = grounded <sup>(3)</sup>
GND	braun	ground	common ground for both inputs and output	

(1) ... Input activation is done by connecting to GND.

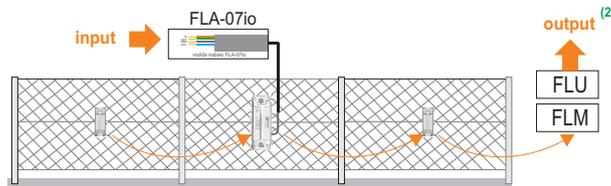
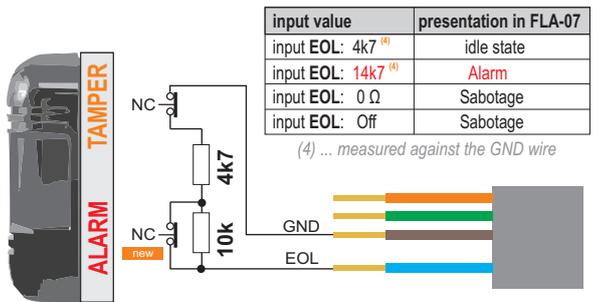
(2) ... When activated, the output is "grounded" via the output transistor. This output is used for switching external resistive loads, small currents..

(3) ... This output is implicitly set to the "Disturbance" event - if this detector is the cause of the alarm and the other detectors in the section do not detect the "wind" event,

### Connecting the IN input



### Connecting the EOL input



tab. 4a - table of tolerances <sup>(1)</sup>

input value of EOL (Ohm)	FLA detector status
0 - 2.700	Sabotage
3.500 - 6.400	idle state
7.300 - 21.300	Alarm
23.500 - nekonečno	Sabotage

### Status description FLA-07io

interface	Description	Activation description	Events in Ronyo Server Agenda Detectors/Movement	Events in Ronyo Server configuration of FLU/FLE outputs <sup>(2)</sup>	Event in Perimon <sup>(1)</sup> mode: tokens
IN	binary input	input IN: Off	quiet		-
IN	binary input	input IN: 0 Ω <sup>(3)</sup>	violation	Alarm - violation	Alarm
EOL	Balance input	input EOL: 4k7	quiet		-
EOL	Balance input	input EOL: 4k7 -> 14k7	external alarm <sup>(1)</sup>	Alarm - detector ESS activated	FLG [opening] <sup>(6)</sup>
EOL	Balance input	input EOL: 14k7	external alarm	Alarm - detector ESS activated	FLG [opened] <sup>(8)</sup>
EOL	Balance input	input EOL: 14k7 -> 4k7	quiet		FLG [closing] <sup>(7)</sup>
EOL	Balance input	input EOL: 4k7 -> 0 Ω/Off	external tamper <sup>(1)</sup>	Alarm - tamper ESS activated	FLG [sab begin] <sup>(6)</sup>
EOL	Balance input	input EOL: 0 Ω/Off	external tamper	Alarm - tamper ESS activated	FLG [sabotage] <sup>(8)</sup>
EOL	Balance input	input EOL: 0 Ω/Off -> 4k7	external tamper	Alarm - tamper ESS activated	FLG [sab end] <sup>(7)</sup>

(1) ... Applies to FW version = 0x62 or younger in FLA-07io detector

(2) ... The event can be configured for Varya Perimeter or Anarya Alarm system

(3) ... Input activation is performed by connecting to GND for more than 3 s.

(6) ... The FLA-07io detector sends this message 4 times at the beginning of this event

(7) ... The FLA-07io detector sends this message 4 times at the end of this event

(8) ... The FLA-07io detector sends this message once every minute and only for the duration of this event



## Anarya Alarm surveillance software

ID	Type	Sector	Area	Object type	Channel	Levels	Inclination sens.	Arm status	Wind	Movement	Sabotage	Failure	Mag. sensor bypass
12 501	FLA-07	sector 07	area B	Object protection	23	15-30	medium (cca 60°)	armed	-	quiet	ok	ok	no
12 502	FLA-07	sector 07	area B	Object protection	23	15-30	medium (cca 60°)	armed	-	violation	ok	ok	no
12 503	FLA-07	sector 07	area B	Object protection	23	15-30	medium (cca 60°)	armed	-	quiet	ok	ok	no
12 504	FLA-07	sector 07	area B	Object protection	23	15-30	medium (cca 60°)	armed	-	quiet	ok	ok	no
12 505	FLA-07	sector 07	area B	Object protection	23	15-30	medium (cca 60°)	armed	-	quiet	ok	ok	no
12 506	FLA-07	sector 07	area C	Object protection	23	15-30	medium (cca 60°)	off	wind	quiet	ok	ok	no
12 507	FLA-07	sector 07	area C	Object protection	23	15-30	medium (cca 60°)	off	wind	quiet	ok	tag jumps >70%	no
12 508	FLG-07	sector 07	area C	Object protection	23	15-30	medium (cca 60°)	off	wind	door open	ok	ok	no
12 509	FLA-07	sector 07	area C	Object protection	23	15-30	medium (cca 60°)	off	wind	quiet	ok	ok	no

Fig. - Operating screen for users ("Detectors on-line" agenda)

ID	Type	Sector	Area	Object type	Channel	ACC	δ ACC	Samples	RSSI-1	RSSI-2	Jumps count	Jumps /40min	Power	Ucc bat	Temp.	SW version	Verified	Synch.	Time
12 501	FLA-07	Sector 07	Area B	Object protection	23	-	19	520	-51 dBm		0	0%	10 dBm	3.55V	20°C	v.02	yes		3 s
12 502	FLA-07	Sector 07	Area B	Object protection	23	-	21	490	-52 dBm		0	0%	10 dBm	3.54V	20°C	v.02	yes		3 s
12 503	FLA-07	Sector 07	Area B	Object protection	23	+15%	18	518	-54 dBm		125	0%	10 dBm	3.55V	20°C	v.02	yes		3 s
12 504	FLA-07	Sector 07	Area B	Object protection	23	-	25	502	-49 dBm		0	0%	10 dBm	3.56V	21°C	v.02	yes		0 s
12 505	FLA-07	Sector 07	Area B	Object protection	23	-30%	22	605	-48 dBm		0	0%	10 dBm	3.56V	20°C	v.02	yes		1 s
12 506	FLA-07	Sector 07	Area C	Object protection	23		23	499	-51 dBm		3	0%	10 dBm	3.55V	20°C	v.02	yes		3 s
12 507	FLA-07	Sector 07	Area C	Object protection	23		19	558	-72 dBm		0	0%	10 dBm	3.54V	21°C	v.02	yes		0 s
12 508	FLG-07	Sector 07	Area C	Object protection	23		20	623	-50 dBm		0	0%	10 dBm	2.51V	20°C	v.02	yes		3 s
12 509	FLA-07	Sector 07	Area C	Object protection	23		21	585	-49 dBm		0	0%	10 dBm	3.55V	20°C	v.02	yes		6 s

Fig. - Operating screen for technicians (Detectors on-line agenda)

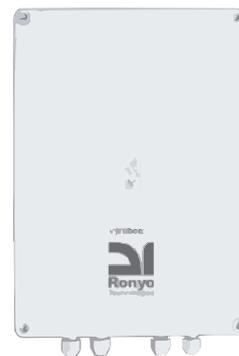
### Configuration options

All acceleration tags (detectors) of the Anarya Alarm system use a 3-axis acceleration sensor to detect the slightest movements, shocks, vibrations of the object on which they are placed. The sensitivity of all tags can be conveniently set by the user using the Ronyo Server program. Each tag can have a different sensitivity. The system can declare a fault condition in the event of a tag failure, and the consequence of the failure will be the absence of its regular transmission.

The system can declare an alarm condition if a tag moves far enough that it is no longer in the system's radio range.

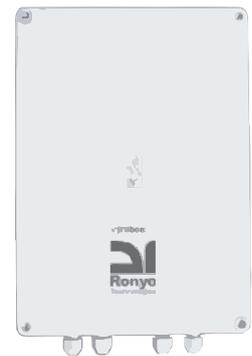
### Unit FLU-05

- dimension: 260x180x62 mm
- Polyester box
- Ucc= 8.5 - 28 V DC



### Unit FLM-05

- dimension: 260x180x62 mm
- Polycarbonate box
- Ucc= 8.5 - 28 V DC



manufacturer:



Ronyo Technologies s.r.o.  
Česká 3195/47  
700 30 Ostrava Zábřeh  
Czech Republic  
www.ronyo.eu



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