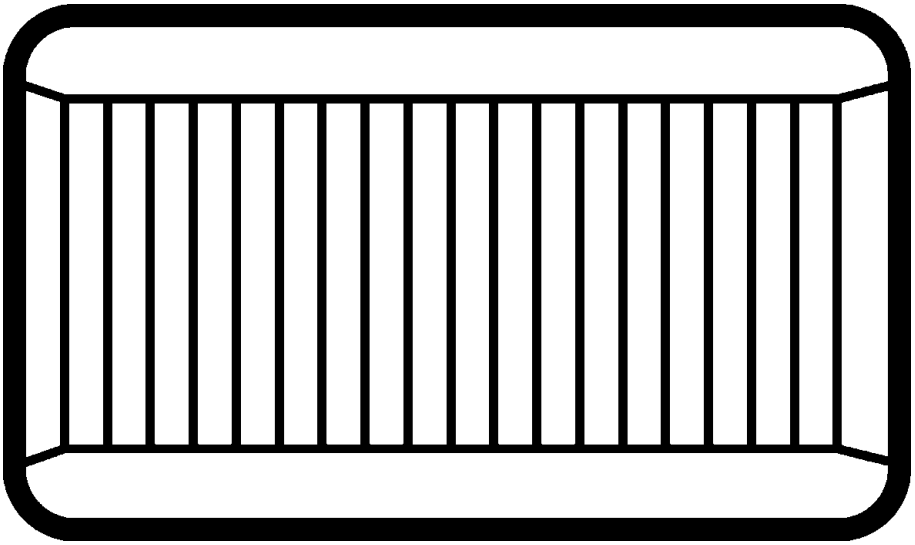
FIRE ALARM SYSTEMS

TIRAS



ADDRESSABLE SIRENS
ALARMO100/ ALARMO110

Passport AAZCh. 425542.003 PS

1O206

EN 54

DSTU ISO 9001:2015

Serial number:

Firmware version:

This passport refers to addressable sirens (further – sirens) ALARMO110 (with short circuit isolator) and ALARMO100 (without short circuit isolator) and contains information on the design and operation of sirens, which are used as part of addressable fire alarm systems, based on the fire alarm control panels Tiras PRIME A.

Sirens meets the requirements of DSTU EN54-3 and DSTU EN54-17 standards (ALARMO 110).

1 List of abbreviations

SCI – short circuit isolator;
FCP – Fire alarm control panel Tiras PRIME A;
AFAS – addressable fire alarm system;
AI – addressable interface;

2 Purpose and general

2.1 Purpose

The sirens are intended for sound and light signals in fire alarm systems.

The sirens are manufactured in a plastic enclosure.

The design of the sirens provides for their wall placement. On the enclosure base there are five holes for fastening the siren with screws (Figure 1).

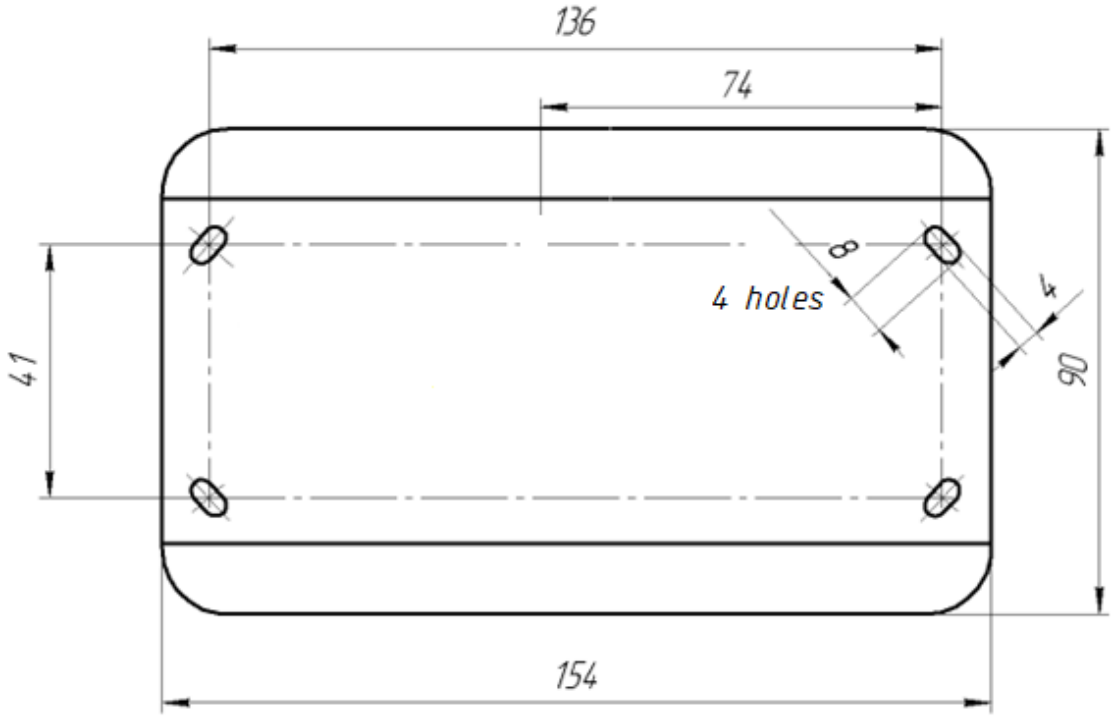


Figure 1 – Mounting dimensions of sirens enclosure base

2.2 General information

1) 3 tons of the alert.
2) Volume control (low/high).
3) LED alarm control (on/off).

3 Technical features

3.1 The list of siren terminals and their functions is given in Table 1

Table 1

Terminal name	Functional
L+	Terminal for connection AI positive wire
L-	Terminal for connection AI negative wire ALARMO110 has two terminals with such name, divided by SCI;

3.2 Technical features of sirens are listed in table 2.

Table 2

Feature name	Value	
General		
Dimensions WxHxD, mm	154 × 90 × 41	
Net weight, kg	0,22	
Enclosure protection degree	IP43C	
Meantime to failure, hours, not less	40 000	
Average lifetime, years, not less	10	
Time to detect faults, s, not more than	10	
Power supply		
Supply voltage from AI, V	20 – 25	
Maximum current consumption from AI, standby mode, mA	0.24	
Maximum current consumption from AI, alarm mode (with LED indication), mA	low	high
- Tone 1 (ISO 8201)	4	8
- Tone 2	5	14
- Tone 3	6	18
Maximum current consumption of LED indication, mA	0.5	
Average sound pressure level (low volume)		
- Tone 1 (ISO 8201)	82 dB ± 4dB	
- Tone 2	85 dB ± 4dB	
- Tone 3	89 dB ± 4dB	
Average sound pressure level (high volume)		
- Tone 1 (ISO 8201)	86 dB ± 4dB	
- Tone 2	89 dB ± 4dB	
- Tone 3	93 dB ± 4dB	
SCI		
Maximum SCI opening voltage, V	15,0	
Minimum SCI recovery voltage, V	4,2	
Maximum current through SCI in the closed state, mA	65	
Maximum SCI opening current, mA	75	
Maximum leakage current through SCI in the open state, mA	4,2	
Maximum transient resistance of SCI in the closed state, Ohm	0,09	

3.3 LED indicators located on the board are used to indicate the operating modes and status of the siren. Purpose of indicators HL1, HL2 (Fig. 1):

1) blinking of HL1 with an interval of 0.5 s (during no more than 4 s) – indication of the siren registration in the AI.

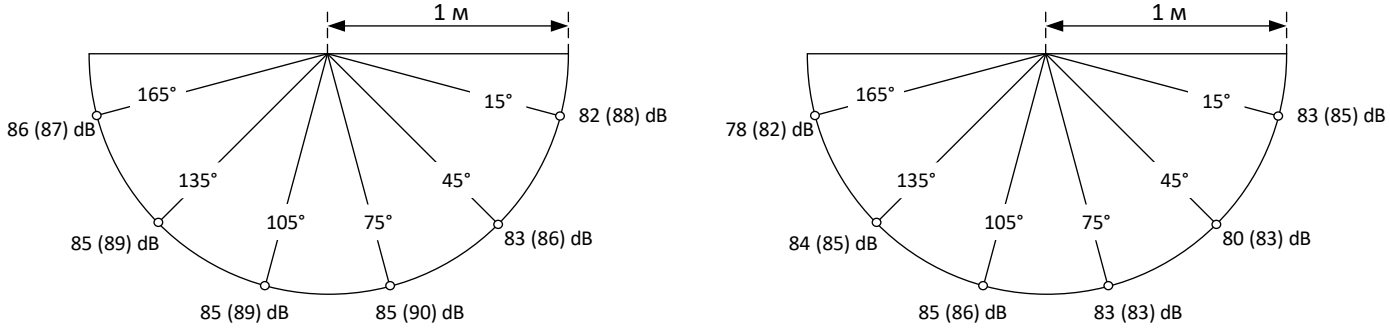
2) blinking of the HL1, HL2 indicators alternately – the siren is marked for visual search.

3) blinking of indicators HL1, HL2 with a period of 0.5 s - indication of a fire alarm;

4) double blinking of the HL2 indicator in red with a period of 4 seconds. - fault condition.

3.4 Acoustic directivity patterns

Acoustic directivity patterns of sirens at a low and high volume level for the operational and 90° clockwise positions are shown in Figure 2.

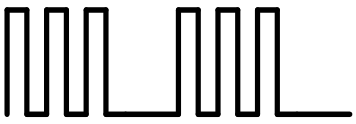
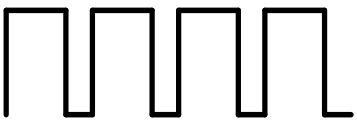


a) b)

Figure 2 – Acoustic directivity patterns of sirens Tone 1 (ISO 8201) at a low (high) volume level for the operational (a) and 90° clockwise (b) positions

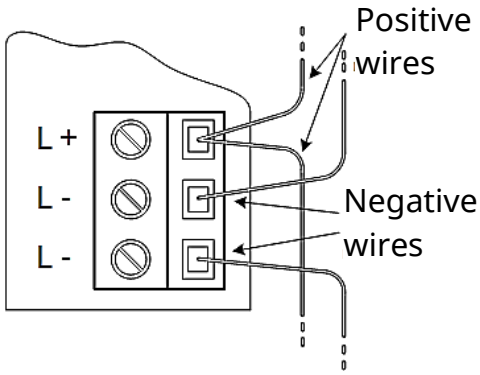
3.5 Tone types and their description are given in Table 3.

Table 3

Tone	Tone type	Description
1		ISO 8201 (main) 3x0.5 s/1.5 s
2		3200 Hz; On– 0.8 s / Off – 0.4 s
3		3200 Hz

4 Connection

4.1 It is necessary to remove the front cover and connect the wires to the terminals according to Figure 3.



- Positive wires of AI - wires connected to terminals L1-L4;

- Negative wires of AI - wires connected to terminals G1-G4.

4.2 Wires inside the case should be placed in such a way that they do not interfere with closing the cover and do not get between the indicators and the window in the cover of the case.

4.3 Wires can be connected to the siren terminals only when there is no voltage on the AI.

5 Settings

5.1. When the supply voltage appears in the AI on the connected siren, the automatic indication of registration is switched on (see item 3.3). Then siren switches to the standby mode if there are no conditions for the formation of a fault (for example, the SCI operation).

The siren is set according to the FCP operation manual.

6 Packaging

6.1 After siren unpacking it is necessary:

- visually inspect the device and make sure there is no mechanical damage;
- check the delivery set according to table 3.

Table 3

Name	***Code***	***Quantity,pcs.***	***Note***
ALARMO 100 ALARMO 110	AAZCh.425542.003 AAZCh.425542.003-01	1	
Passport	AAZCh.425542.003 PS	1	One passport for 10 sirens

7 Operation, storage, and transportation conditions

The sirens are intended for continuous 24h operation in the premises under regulated climatic conditions. Operating temperature range: - 25°C .. 70°C, maximum humidity – 93%.

Packaged sirens are stored in warehouses under the following conditions: air temperature range: - 50˚C .. 55˚C, relative humidity must not exceed 98% at a

temperature of 35˚C. There should be no aggressive impurities in the air causing corrosion in the premise where the sirens are stored.

Packaged sirens are transported by low-tonnage shipments at any distance by road and rail in closed vehicles in accordance with the rules of transportation applicable to each type of transport. When placing and securing boxes with packed sirens during transportation, ensure a stable position of the boxes to prevent shifting and bumps between them. During loading and transportation, the requirements of handling signs on the packaging should be met.

8 Information on declarations of conformity to technical regulations and certificates

The sirens ALARMO100/110 meets the following requirements of mandatory technical regulations:

- Technical regulations on electromagnetic compatibility of equipment;
- Technical regulations restricting the use of certain hazardous substances in electrical and electronic equipment.

Certificate of compliance with the requirements of DSTU EN 54 series standards issued by the State Certification Center of the SES of Ukraine.

The Quality Management System of Tiras-12 LTD is certified in accordance with DSTU ISO 9001: 2015.

The full text of declarations of compliance with technical regulations and certificates are available on the website at www.tiras.technology.

9 Acceptance certificates

The sirens ALARMO100/110 meet the requirements of regulatory and technical documents and is suitable for operation complete with FCP Tiras PRIME A. The date of acceptance (stamp) is on the last page of the passport.

10 Warranty obligations

The manufacturer guarantees siren compliance with the requirements of regulatory and technical documents during the warranty period of operation under the conditions of transportation, storage, and the operation specified in this passport.

The warranty period is 36 months and starts at the date of sales specified in the operating documents for the siren or in other accompanying documents (sales contract, invoice, bill, etc.). If you cannot provide a document confirming the date of sale of the siren, the warranty period starts from the date when the device was produced.

_____ _____

(date of sale) *(seller's signature)* *stamp*

11 Limitation of liability

The manufacturer has the right to refuse the siren warranty service under disputed circumstances. The manufacturer also has the right to make a final decision on whether the siren is subject to warranty service or not.

These are the actions and damages that lead to loss of warranty service:

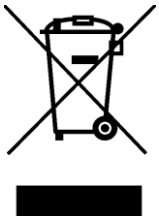
1) damage caused by natural phenomena (fire, flood, wind, earthquake, lightning, etc.);
2) damage caused by the violation of the installation rules or improper siren operating conditions, including in particular:
   - poor grounding;
   - overvoltage;
   - high humidity and vibration;
3) damage caused by other objects, liquids, insects, etc. getting inside the siren;
4) mechanical damage to the siren components (chips, dents, cracks, broken contact connectors, etc.);
5) damage caused by unauthorized repair;
6) damage caused by the violation of transportation, storage, and operation rules;
7) change, delete, erase or damage the device serial number (or stickers with serial numbers on the siren).

12 Information on repair

The siren is repaired by the manufacturer. sirens for which the warranty period has not expired and which have been operated in accordance with the operating documents for the device are repaired free of charge. If you want to repair, siren, send it to the manufacturer with a document indicating the date of the sale, and a letter describing the malfunction, the place of siren operation, and the contact phone number of the person for repair

13 Disposal

After the expiry of the service life of the siren its utilization is carried out in accordance with the current legislation, separate from household waste.



In accordance with the EU Directive 2012/19/EU on waste electrical and electronic equipment, the disposal of siren should be done separately from household waste. To dispose of the siren, it must be delivered to a point of sale or a local processing point.

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TIRAS

tiras.technology

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