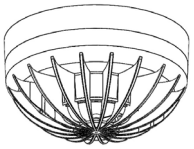
ADDRESSABLE THERMAL FIRE DETECTOR «IPT-A»



Installation Guide

1 General information

1.1 The addressable thermal maximum-differential fire detector «IPT-A» (hereinafter referred to as the Detector) allows to detect fires by the value of the ambient temperature or by the rate of its increase with subsequent transmission of an alarm notification via an addressable loop (ADL) to the Control panel (hereinafter referred to as CP) in accordance with the protocol «Rielta-Kontakt-ADR».

1.2 The Detector is powered from the ADL

1.3 The Detector status is indicated by red and green indicators.

1.4 The Detector class is programmable and is set by the corresponding command from the control panel (by default A1R).

1.5 The Detector generates and transmits the following notifications:

- **«Normal»** – in the absence of exceeding the temperature or rate of increase and receiving a command to allow the reset of the «Fire» notification from the control panel;
- **«Fire»** – when an excess of temperature or the rate of its increase is detected;
- **«Power failure»** – when the supply voltage in the AS is low;
- **«Fault»** – if the temperature control circuit is damaged.

1.7 The detector is designed for continuous 24-hour operation.

2 Technical specifications

Table 1

Parameter	Value
Supply voltage (in the absence of ADL exchange)	6,5...14 V
Current consumption in the absence of ADL exchange and indication	0,85 mA
Detector class	PR
Protection class	IP20
Overall dimensions	∅125x70 mm
Weight	0,2 kg
Mean time between failures	60 000 hours
Average service life	10 years
Operational conditions	
Operating temperature range	-40...+75 °C
Permissible relative humidity at a temperature of +40°C	up to 93 %
Type of climatic modification	UHL4

2.1 Response temperature

Table 2

Detector class	Response temperature,°C	
	min.	max.
A1R	54	65
A2R	54	70
A3R	64	76
BR	69	85

2.2 Response time

Table 3

Rate of temperature rise, °C/min.	Response time, sec	
	min.	max.
5	120	500
10	60	242
20	30	130
30	20	100

2.3 The Detector remains operational when exposed to: vibrations with an acceleration of 0.5g in the frequency range from 10 to 150 Hz; direct mechanical impact with an energy of 1.9J.

2.4 The Detector is resistant to electromagnetic interference.

3 Contents of the set

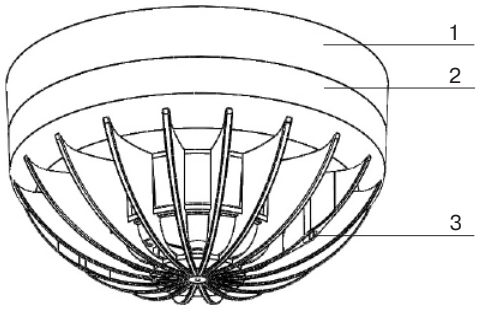
The detector delivery set is shown in Table 4.

Table 4

Item	Qty
The addressable thermal maximum-differential fire detector «IPT-A»	1 ps
Screw 3-3x40.016	2 pcs
Dowel NAT 5x25 SORMAT	2 pcs
he addressable thermal maximum-differential fire detector «IPT-A». Installation Guide	1 copy

4 Design

The appearance of the detector is shown in Figure 1. The detector is enclosed in a plastic housing, consisting of a base base (hereinafter referred to as the base) (1) and a housing cover (2). There are indicators on the housing cover (3).



Picture 1 – Design of IPT-A

5 Indication

The modes for turning on the indicator lights are presented in Table 5.

Table 5

Detector status	Indication	Notes
Successful registration/ deletion	Frequent short flashings of the red indicator for 2 s	
«Fire»	short turning on of the red indicator with a period of 2 s	«Fire» notification was delivered to CP
«Normal»	short turn on of the green indicator with a period of 8 s	if there is a connection with CP
No connection with CP	off	
«Identification» indication	short turn on of the green indicator, and then the red indicator with a period of 6 s	

The «Identification» indication turns on for 15 minutes upon receipt of the corresponding command from CP, provided there is no «Fire» notification in the same time.

6 Safety measures

6.1 The Detector belongs to protection class III in terms of protection from electric shock.

6.2 When installing and operating the Detector, one should be guided by the provisions of the «Safety Rules for the Operation of Consumer Electrical Installations».

6.3 All installation work must be carried out only with the external power turned off.

7 Installation and registration

7.1 Choosing the place of installation

7.1.1 When designing the location of the Detector, it is necessary to be guided by the relevant regulatory documents.

7.1.2 With all other things being equal, it is necessary to choose an optimal installation location for placing the detector considering the following:

- eliminate the possibility of liquids getting onto the housing and leaking from the mounting surface;
- find a place with minimal vibrations of building structures;
- find a place with maximum distance from sources of electromagnetic interference and infrared radiation (thermal devices);
- find a place with maximum convenience for servicing and checking the detector.

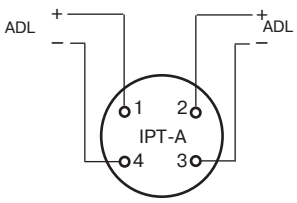
7.2 Mounting

7.2.1 Break out the openings for inserting wires in the special places of the housing where the walls of the base are weak.

7.2.2 Route the wires into the base.

7.2.3 Install the base in a horizontal position and secure with screws.

7.2.4 Install the ADL wires to the terminals of the base contacts according to the connection diagram (Picture 2). Maximum cross-sectional area of conductors – 0.75 mm^2.



Picture 2 – Connection scheme

7.2.5 Install the detector into the base and secure it by turning it clockwise until it stops.

7.2.6 Prepare CP for the Detector registration in accordance with the instructions on CP.

7.2.7 Register the Detector in CP and set the required operation class (default A1R).

8 Functionality check

8.1 To check the functionality of the Detector, bring the magnet to the area between the second and third ribs from the built-in indicator on the label side for at least 5 s.

8.2 The Detector will generate the «Fire» alarm, accompanied by a corresponding light indication.

8.3 Returning the Detector to standby mode is possible only after the alarm has ceased and a command has been received from CP to allow resetting the «Fire» notification in accordance with the «Rielta-Contact-ADR» protocol.

Attention! Regularly, at least once every six months, blow the detector from all sides with air at a pressure of 0.5–2 kg/cm^2. After purging, check the operation of the Detector according to paragraphs 8.1–8.3.

9 Disposal

9.1 The Detector is disposed of in accordance with STATE STANDARDS, taking into account the absence of toxic components in it.

9.2 Contents of precious materials: the Detector does not require accounting during storage, write-off and disposal.

9.3 Content of non-ferrous metals: the Detector does not require accounting for write-off and further disposal of the product.

10 Storage and transportation

10.1 The Detector in the manufacturer's transport container can be transported by any type of transport in covered vehicles (in railway cars, closed cars, sealed heated compartments of aircraft, holds, etc.) over any distance.

When transporting the Detector, one must be guided by the rules and regulations in force for the relevant modes of transport.

10.2 The conditions for transporting of the Detector must comply.

10.3 The storage conditions for detectors in transport containers must comply.

The storage room should be free of conductive dust, acid and alkali vapors, as well as gases that cause corrosion and destroy insulation.

11 Manufacturer's Guarantees

11.1 The manufacturer guarantees conformity of the Detector to the Technical Specifications requirements provided the transportation, storage, installation and operation conditions are observed.

Guaranteed storage period is 40 months from the date of manufacture of the detector.

11.2 Warranty period of operation is 36 months from the date of commissioning within the warranty period of storage.

11.3 Detectors that, during the warranty period, were found not to be compliant with the operating and installation rules, are repaired by the manufacturer.

12 Packing Certificate

The addressable thermal fire maximum-differential detector «IPT-A» has been manufactured in compliance with the active technical documentation, classified as fit for operation and packed by «Development and Production Enterprise RIELTA» LLC.

Packing date _____
month, year

Made in Russia

v1.2

«Development and Production Enterprise RIELTA» LLC
Petrogradskaya nab., 34, letter B, Saint Petersburg, Russia, 197046
www.rielta.com, rielta@rielta.com
Tel./fax: +7 (812) 233-0302, 703-1360, support@rielta.com
Technical support, tel.: +7 (812) 233-29-53, 703-13-57, support@rielta.com