



## FDT181 Heat Detector Product Manual

### Overview

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The heat detector FDT181 is an intelligent detector. It is used for early fire detection inside a building.

### Characteristics

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- With built-in CPU, signals received are processed by intelligent algorithm
- Two operation modes: A2S/A2R
- Automatically address setting without encoder setting or DIP switch
- All-around visible alarm indicator
- Resistant to environment and interference factors such as humidity, corrosive and vibration, with immunity against electro-magnetic interference.
- Communication via FD18-BUS, polarity free connection
- “Sticker Method” easy for commissioning

### Functions

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- The detection behavior of the detectors is influenced by the operation mode, so that it can be specifically adjusted according to the environment to be monitored
- Unique ID of each detector, controller can identify the detector type according to the ID and assign address

## Application

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- Suitable for use in places where the ambient temperature can change rapidly, or smoke detector are not suitable
- Dust cap protects the detector from being contaminated by construction work

## Indicator

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The detector is provided with an internal alarm indicator to show its operating status.

Status	Indicator
Normal	Off
	Flashing when connected with FC1840-A3 (for Russian).
Locate/Test	Flashing
Alarm	Steady on

## Installation

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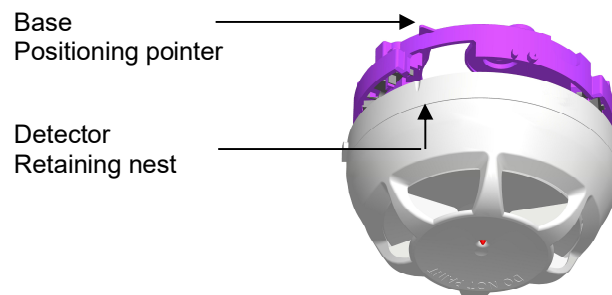
### • Easy and time-saving mounting

Install the base and finish the wiring during the construction phase.

1. Point the retaining nest to the positioning pointer and insert it into the base.
2. Turn it clock wisely until it stops.

### Uninstallation:

1. Turn it counterclockwisely until it stops.
2. Pull the detector out.



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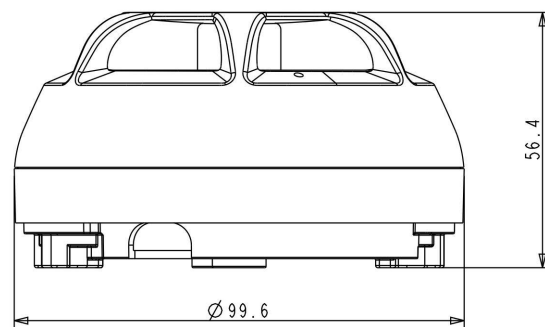
After all the construction is finished, the dust cap must be taken away!

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## Dimensions

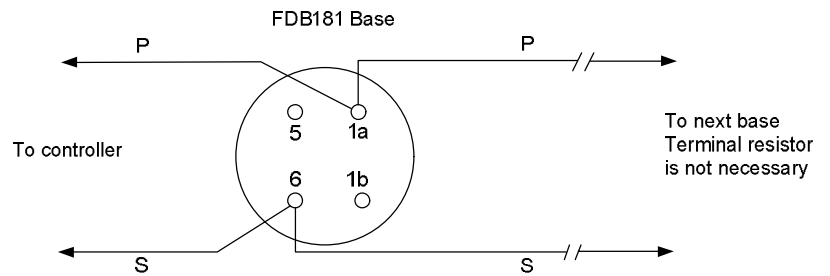
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In: mm (with base)



## Connection diagram

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## Maintenance

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### ● Performance test

Recommendation:

- Submit all detectors to an annual visual check. Detectors that are strongly soiled or mechanically damaged must be replaced.
- Any detectors should be replaced after 7 to 10 years of service, independent from the environmental conditions.
- Long term auxiliary detectors should be stored with plastic bag.
- Carry out heat test each year.

## Technical data

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Operating voltage	12...32 VDC
Operating current (quiescent)	0.26 mA
Activation current	1.2 mA
Operating temperature	-10...+50 °C
Storage temperature	-20...+75 °C
Humidity	≤96% (40±2 °C)
Communication protocol	FD18-BUS
Load factor	1
Color	White, RAL 9010
Protection category EN60529 / IEC529/GB4208-93	IP44
Approval (for Russian)	TR RF N123-FZ

## Specifications

No.	Name	Operating temperature typ. / max.	Static activation temperature <sup>1</sup>	Differential activation temperature <sup>2</sup>
		[°C]	[°C]	$\Delta T$ [K]
1	A2S 60 °C maximum	25 / 50	60	-
2	A2R 60 °C rate of rise	25 / 50	60	25 <sup>3</sup>

<sup>1</sup> Applicable with slow temperature increases <1 K/min.

<sup>2</sup> Applicable with fast temperature increases >10 K/min.

<sup>3</sup> Between 1 K/min and 10 K/min, this value increases by a few degrees.

## Details for ordering

Type	Material No.	Part No.	Designation	Weight
FDT181	S54320-F3-A1	100856212	Heat detector	0.064 kg
FDB181	S54320-F1-A1	100856213	Detector base	0.027 kg
	A5Q00022001	100566011	FDT181 dust cap	

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