

HI720-CN Heat detector Product Manual

Overview

The heat detector HI720-CN has a straightforward design featuring a thermal sensor.

The following table indicates the most important differences between the two heat detectors.

Parameter	HI720-CN
Alarm activation by:	<ul style="list-style-type: none">• Temperature increase• Reaching the maximum temperature
Number of parameter sets	<ul style="list-style-type: none">• 2

Characteristics

- Fulfill Chinese standard GB4716-2005 "Point type heat fire detectors"
- Measures the ambient temperature, so that an temperature increase can be detected immediately
- The detection behavior of the detectors is influenced by the parameter sets, so that it can be specifically adjusted to the fire phenomena and environmental conditions to be expected in the environment to be monitored
- Resistant to environment and interference factors such as dust, fibers, insects, humidity, extreme temperatures, electro-magnetic interference, corrosive vapors, vibration, synthetic aerosols and atypical fire phenomena
- Integrated short-circuit isolator
- Communication via C-NET
- Adopt environmental protected material and production process to fulfill RoHS standard

Application

The heat detector HI720-CN responds when the temperature exceeds a preset threshold value. These detectors are suitable for use in, for example, boiler rooms or small kitchens, where the ambient temperature can change rapidly.

Heat detectors are used in environments where misleading sources of false alarms are present and where, if smoke detectors were to be used, an unacceptable number of false alarms would be triggered.

If parameterized appropriately, the heat detector HI720-CN can recognize sharp increases in temperature and is suitable for areas with a stable ambient temperature.

The heat detectors HI720-CN have the two parameters:

- A2S (1)
- A2R (2)



Explanation of parameters refers to Chinese standard GB4716-2005.

Internal alarm indicator

The detectors are provided with an internal alarm indicator. The internal alarm indicator shows the operating condition of the detector (see table).

Operating condition	Flashing mode of the AI
Normal	Off
Test	AI lights up every second
Alarm	Continuous light on AI
Locate	AI lights up every second

Installation

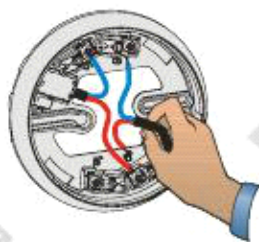


Fig. 1
- Alarm indicator (AI) centered in the detector; no alignment required

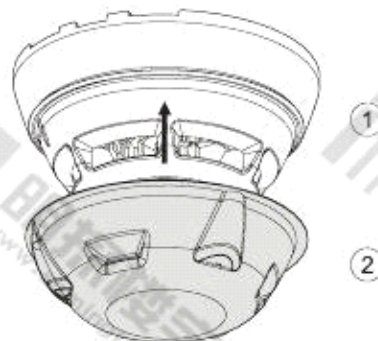
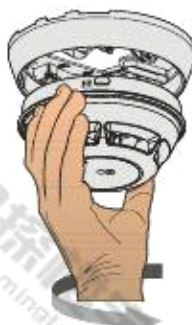


Fig. 2
1 - Detector
2 - Detector dust cap

• Easy, time-saving and high-quality mounting (Fig. 1)

To install a point detector, a detector base DB720-CN is always required. After installing the detector base, simply insert the point detector in the base and turn it, either manually or using the detector exchanger, until you hear and feel it snap in.

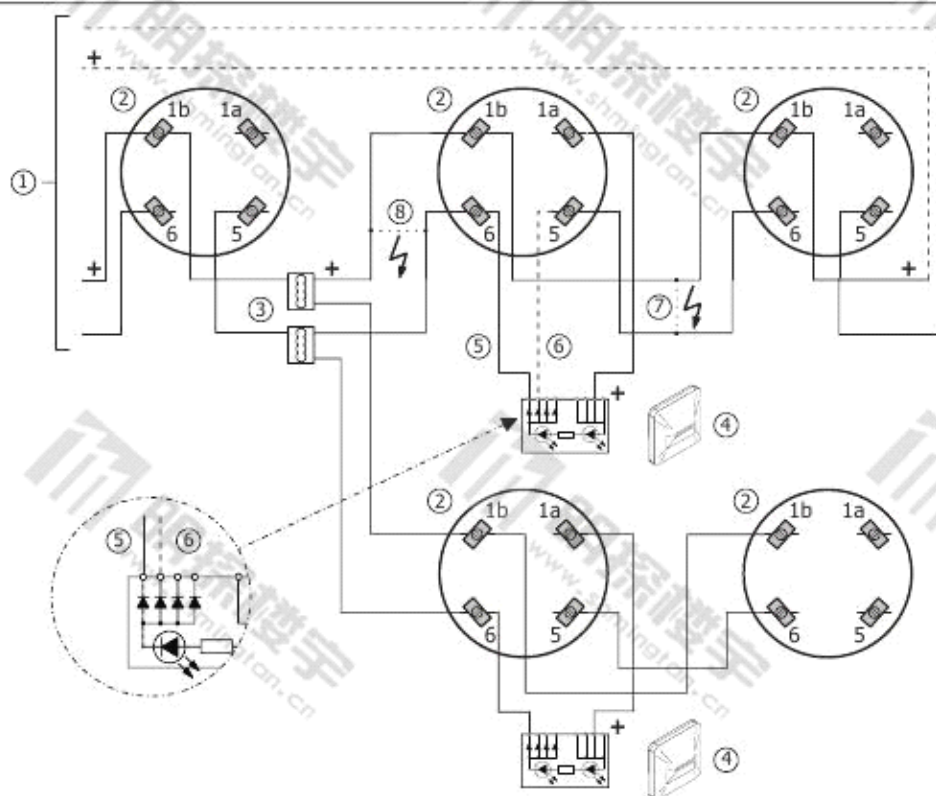
• Detector dust cap (Fig. 2)

A detector dust cap is provided as part of the scope of supply for each detector. During the construction phase, the detector may be covered with the detector dust cap to protect it from dust and dirt.



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

Connection diagram



Legend

- | | |
|---------------------------------|---------------------------|
| 1 Control panel | 5 Cable -E_AI6 |
| 2 Detector base DB720-CN | 6 Cable -E_AI5 (optional) |
| 3 Auxiliary terminal DBZ1190-XX | 7 Short circuit (error) |
| 4 Ext. alarm indicator | 8 Short circuit (error) |

Comments

- If a shielded cable is used for connecting the external alarm indicator, its shield must be connected to the shield for the detector bus.
- The alarm indicator connected will continue to function correctly in the event of a short circuit occurring at position 7 on the connection diagram. The alarm indicator is triggered by cable -E_AI6.
If the short circuit occurs at position 8 on the connection diagram, the alarm indicator will no longer be triggered.
As an option, the alarm indicator may also be connected using cable -E_AI5.
In this case, the alarm indicator will correctly indicate an alarm even if a short circuit occurs at position 8.
Therefore, this ensures that the alarm indicator will always function correctly.

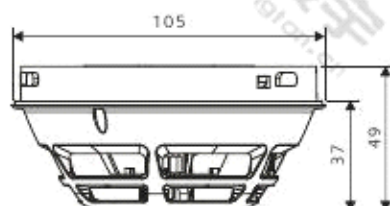


The option described is only possible in a loop line.

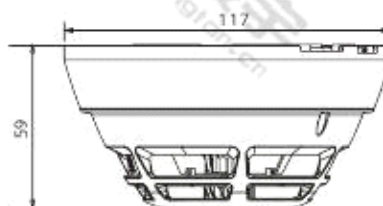
Dimensions

In: mm

Without base



With base



Maintenance/Repair

Regular performance checks of the detectors are required. These can be carried out using hot air fan.

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 6 to 8 years of service, independent from the environmental conditions.

Technical data

Operating voltage (modulated)	12 ... 33 VDC
Operating current (quiescent)	200 μ A
Connectable ext. alarm indicator	2
Current for ext. alarm indicator	10 ... 16 mA
Voltage for ext. alarm indicator	9 ... 33 VDC
Static response temperature with parameter set:	
– A2S (typ.):	60 °C
– A2R (typ.):	60 °C
Operating temperature	–10 ... +50 °C
Storage temperature	–30 ... +70 °C
Humidity (short-term moisture condensation permitted)	≤95 % rel.
Communication protocol	C-NET
Color	pure white, RAL9010
Protection category EN60529 / IEC529	
– Base DB720-CN	IP40
– Base DB720-CN with detector base seal RS720	IP42

Details for ordering

Type	Material no	Part no	Designation	Weight
HI720-CN	S54310-F4-A101	100681357	Heat detector (Static+ROR)	0.078 Kg
DB720-CN	S54319-F4-A101	100700917	Detector base, addressable	0.052 Kg

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