

User manual



Pyralis

**FIRE DETECTION-, ACTIVATION- AND
COMMUNICATION MODULE**



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1 FORWARD

The information set forth herein is furnished free of charge and is based on technical data that N2KB BV believes to be reliable, and it is intended for use by people having technical skills, at their own discretion and risk. Installation in accordance with this manual, applicable codes, and/or the instructions of the authority having jurisdiction is mandatory from every aspect to ensure acceptable result.

The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of involvement present no risk of health or safety hazards.

The contents of this document are presented for informational purposes and are intended to be only a reference for the installation, operation and maintenance of the designated component, system or device and shall be used only by trained service technicians who are authorized to work with the product. The first-time installer and/or users should thoroughly read and understand and follow the instructions contained within this document before handling the product in order to avoid damage to the product and/or equipment itself or adverse operating conditions caused by improper handling or installation. Any questions and comments concerning the information presented in this document should be addressed to the manufacturer

2 INTRODUCTION

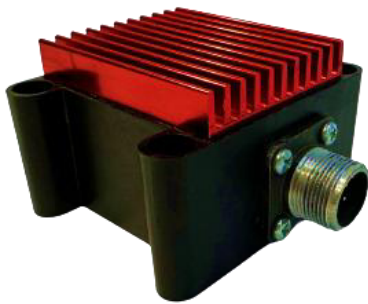
The Pyralis thermal activation module is a unique thermal fire detection and electrical activation device designed to activate aerosol suppression units. Independently of a power source, it realizes fire detection and activation of a fire suppression system. This module is developed for placement on an object or inside/outside the protected area where there is no room for or provision for a fire alarm/extinguishing system.

This automatically thermodynamically energy-harvesting activation module is unique in its kind. The Pyralis is a patented detection, activation, and communication module. The functionality of Pyralis is based on thermodynamic technology and detects temperature rise in a room and converts this temperature change into electrical energy.

The thermally generated energy is stored in the module for the activation of, for example, aerosol suppression units. Besides activation output, the module also has a potential-free relay contact that sends a pre-alarm signal at the preset temperature. All of this without external power sources or batteries. Pyralis is a fully independent and maintenance-free device and does not require an external power supply to function, while it is 100% immune to unwanted fire alarms.

3 MODELS

There are two versions of this module available.



Version AF (air flow), as depicted on the left side, is intended for heat absorption through the ambient air/temperature.

Version SP (sensor plate) as depicted on the right side, is a module with a contact plate that is placed directly on the object to be protected or against the outer side of the volume to be protected.



The detector comes standard with a 4 pin female connector.



The temperature setting of our thermal fire detection and activation module should not be confused with the response time. The response time is based on several factors, including the time it takes the module to absorb and transfer heat during the fire to the point where the module emits the extinguishing release pulse.

4 SPECIFICATION

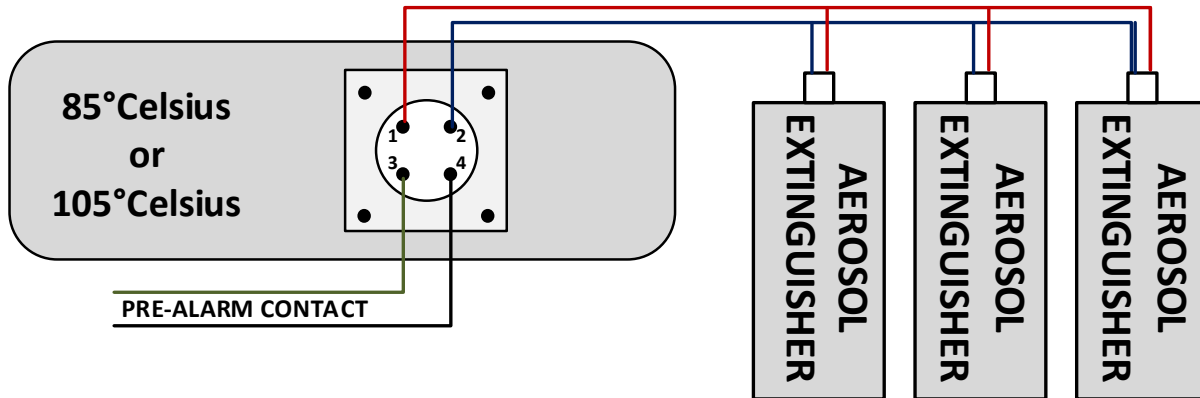
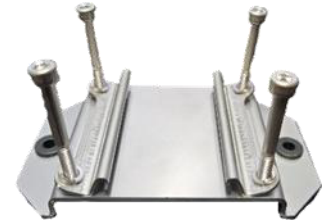
| Article code | Description | Pre-alarm temperature | Activation temperature |
|--------------|---|-----------------------|------------------------|
| N2KB/1001/AF | Thermal detection and actuation module (air flow) | 65°C | 85°C |
| N2KB/1002/AF | Thermal detection and actuation module (air flow) | 85°C | 105°C |
| N2KB/1003/AF | Thermal detection and actuation module (air flow) | 85°C | 130°C |
| N2KB/1004/SP | Thermal detection and actuation module (sensor plate) | 65°C | 85°C |
| N2KB/1005/SP | Thermal detection and actuation module (sensor plate) | 85°C | 105°C |
| N2KB/1006/SP | Thermal detection and actuation module (sensor plate) | 85°C | 130°C |
| N2KB/2001 | Cable set for connecting the detector | | |
| N2KB/2002 | Additional assembly plate | | |



5 INSTALLATION GUIDELINE

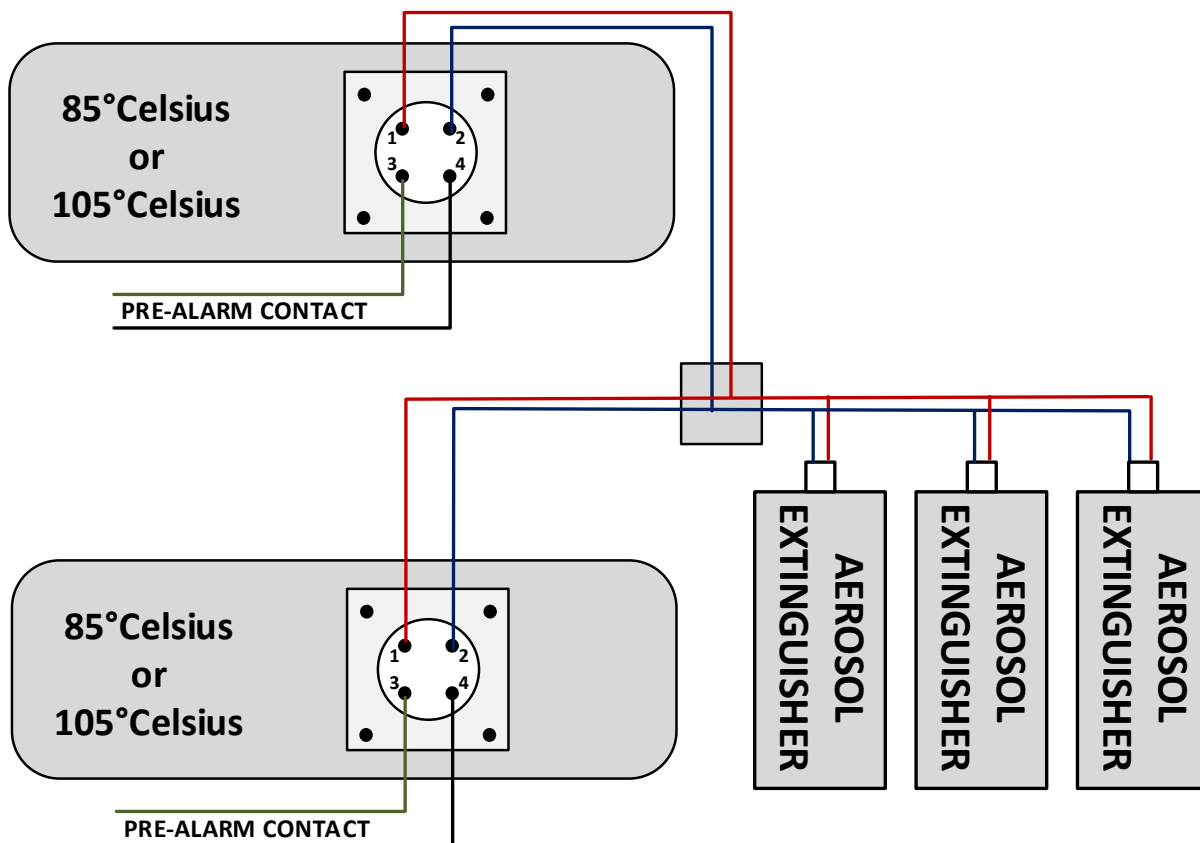
The device should be installed to the ceiling, middle of the protected perimeter/area (general rule) if possible. The device must be mounted by using applicable 6mm screws, and the heat sensitive aluminum part (red part in this manual) downwards. A special mounting plate is also available for mounting in the event of vibrations.

The device has 4-pin connector, pin order can be seen picture below.



6 SURFACE GREATER THAN 30m²

A maximum monitorable surface area of 30m² applies per fire detector. In rooms to be protected with an area > 30m², two or more detectors can be installed but with a detection area of 20m² per detector. (all temperature related). The wiring diagram for use with surface areas > 30m² is shown in the figure below



7 TECHNICAL DETAILS

| | |
|--|--|
| Dimensions | : 55mm x 69mm x 42mm |
| Weight | : 275g |
| Protection class | : IP67 |
| Trigger pulse output voltage and current | : 25V, 3A |
| Contact rate NO early warning relay | : 24V, 2 A |
| Operational lifetime | : 15 years |
| Max protected area with single device | : 20m ² |
| Operating temperature | : -55..+90C |
| Material | : polycarbonate & aluminum |
| Connection cable | : Fire resistant duration 30 min. at temperature to 830 C (- 0 ÷ + 40 °C) EN 50200 |

8 MAINTENANCE GUIDELINES

The device does not need any special maintenance. However, it is recommended to carry out a visual inspection in regular intervals depending on the device operating circumstances. During the inspection check that there is no damage of the heat sensitive element and check the absence of cracks and defects on the device body and mounting. If such defects exist, the device should be replaced. The body of the device should be cleaned periodically from dust and dirt by moistened cloth if necessary. The device shall be disconnected from the activation circuit before carrying out Vany maintenance procedures.

9 PRODUCT SUPPORT AND ASSISTANCE

If you have a question or encounter a problem not covered in this manual, you should first try to contact the distributor who supplied the system or component. If you cannot locate the distributor, please contact N2KB BV customer service to locate your nearest distributor. If you are unable to contact your installation distributor or you simply do not know who installed the system, you can contact our technical support for the assistance you need. Further and detailed contact information can be found from our website.

10 STORAGE, TRANSPORTATION AND DISPOSAL

The device must be handled with due diligence in accordance with electronic products. Components shall be stored in dry and cool storage as well as covered from moisture and direct sunlight. The product is allowed to transport by any transport means under the requirements of correspondent cargo rules. Temperature during transportation is -50..+50C Manufacturing materials are recyclable and / or disposable by conventional methods.



11 MANUFACTURER'S WARRANTY

N2KB BV provides a two-year (2) limited warranty on this product. All warranty returns must be returned from an authorized N2KB BV Distributor. Contact N2KB BV for further warranty information. After finding any manufacturing defect during the warranty period the manufacturer is engaged to repair or replace the product free of charge. All returns must be approved prior to return.

12 LIMITATIONS OF LIABILITY

Because conditions of the use of the provided information and product(s) are outside of manufacturer's control, N2KB BV make no warranties or guarantees, express or implied, and assume no liability in connection with any use of this information regarding the product(s) and/or service(s) described herein or their utilization or applicability in any means and cannot be held liable for any possible incidental or consequential damages arising from the loss of property or other damages including losses or damages resulting from the use or misuse of the information and/or product(s). As with any material, evaluation under the end-use conditions prior to specification is essential and neither N2KB BV nor any of their affiliated entities assumes responsibility for the selection, suitability and/or use of any product(s). Responsibility for these actions remains solely with the purchaser and end user. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents or violate any laws, rules, regulations or ordinances of any commercial and/or governmental entity.

13 DISCLAIMERS

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