Heat Detector

Type: KPS 79

EGON HARIG flamtron®
Electronic systems Fire alarm systems

1. The heat detector consists of

1. Temperature feeler
   which is screwed into a feeler sleeve which is filled with a heat-conducting paste.
2. Capillary Tube
   which is flexibly mounted and connects the feeler with the controller unit.
3. Controller unit

   On the controller unit there can be adjusted
   a) the temperature alarm set-point (°C) on the left scale
   b) the temperature alarm switch-off point (diff. °C) on the right scale.

   The adjusting screws will be locked by a special lock washer.

The cable from the heat detector to the panel will be monitored via the 4.7 kOhm resistor which is mounted inside the controller unit.

In normal operation (adjusted temperature switch point is not reached) the contact between terminal 1 and 2 is closed.

In case of alarm the contact between terminal 1 and 4 will be closed.

When mounting the capillary tube take care that:
a) the radius is not less than 60 mm
b) in case of suspended mounting the distance between the clamps is not more than 200 mm.

The heat detector is maintenance-free.

2. Operating Principle

The feeler is filled with a liquid which will expand when heated. This expansion will be led through the flexible capillary tube to the diaphragm pressure switch which is installed within the controller unit. The diaphragm pressure switch is set by an adjustable pressure spring (setting of the temperature alarm switch point).

If the feeler temperature reaches the set point the expanded liquid operates the diaphragm pressure switch and the signal contact is actuated.

3. Test of the Heat Detector

The Heat Detector can be checked by means of an hot-air blower (e.g. for use of shrink hoses) or by oil or water which has an constant temperature. Due to the fact that a test with oil or water cannot be carried out easily, because the feeler tube has to be dismounted, we recommend the use of a hot-air blower with temperature control.

Test procedure:
Adjust hot-air flow to the feeler tube until an alarm will be indicated. Take care that the feeler tube temperature does not rise above +180°C.

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