

FEATURES (OF OUR “SMOKE DETECTORS”)

HOCHIKI’S SMOKE DETECTORS USE A STEAM-PROOF HONEYCOMB MESH STRUCTURE!!



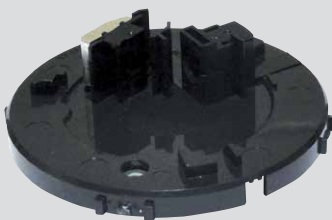
They are recommended to be used at locations where steam tends to generate, such as a hotel room! It is the “Fire Detector” that actually detects fires, regardless of how expensive the panel system is. Hochiki’s “Smoke Detector Series” is a result of unique technology achieved over many years. They are highly rated “Smoke Detectors” for being able to detect a fire early and also for being steam proofed.

FUNCTION 1: MAKING THE FLOW DIRECTION EVEN

By making the inner structure flat by making the internal smoke chamber flat, it enables an even direction of smoke flow providing greater and accurate sensitivity, compared to the conventional design which had emitter, receiver protrusions inside the detector chamber. This additional

surface area within the chamber allows for Adhesion of insects and dust, as well as steam condensation. With this new internal chamber design false alarms caused by transient steam and other foreign particles are reduced.

ORIGINAL DESIGN



Due to inner protrusions (within the smoke detection chamber), the flow and direction of smoke becomes uneven and unnecessarily accelerates the smoke flow from the optimal direction, resulting in false alarms caused by steam and other waste products.

CURRENT DESIGN



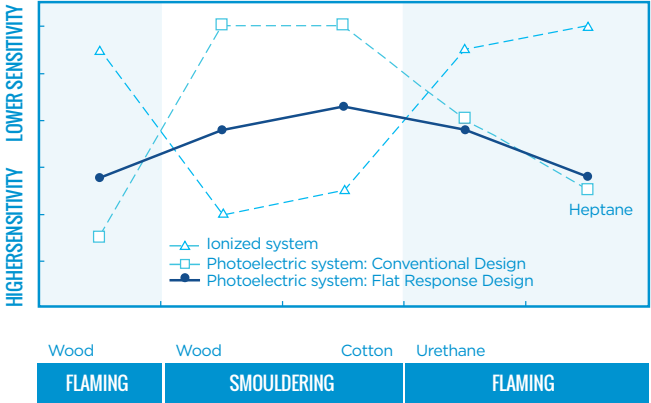
By flattening the inner structure (within the smoke detection chamber), smoke particle flow from all directions is made even; also thanks to Hochiki’s know how, false alarms caused by steam and others are prevented.

FUNCTION 2: FLAT RESPONSE FLAT SENSITIVITY AGAINST VARIOUS TYPES OF FIRE SMOKES

UNIQUE TECHNOLOGY

The structure of the detection sensor that catches scattered light is optimized by optical simulation. The sensitivity for flaming black smoke with small particles is enhanced, while the sensitivity for smouldering white smoke with large particles is reduced. This achieves almost even sensitivity to various types of fires and allows early and accurate fire detection. Further, as it has low sensitivity for steam with large particles, the chance of raising a false alarm is significantly reduced even when steam enters.

Note: Photoelectric smoke detector is based upon the principle of smoke detection using light; therefore, it is not perfect for preventing false alarms caused by steam.

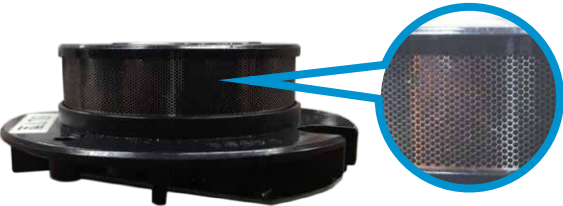


FUNCTION 3: HONEYCOMB MESH STRUCTURED INSECT MESH

UNIQUE TECHNOLOGY

DESPITE HAVING SMALLER APERTURE, A WIDE APERTURE RATIO IS MAINTAINED

By making the aperture smaller (0.4mm), narrowing the distance between apertures (0.05mm) and widening the effective aperture ratio, it maximizes the smoke flow and improves the tolerance against insects and dust.



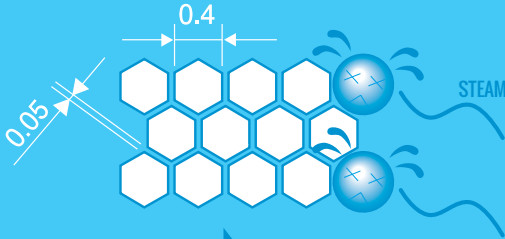
INSECT MESH IMAGE MANUFACTURED BY HOCHIKI

Manufactured by SUS:

t=0.1

Aperture: 79%

Aperture area: 0.136mm²



Due to the waste particle product of steam, steam is encouraged to diffuse through the insect mesh, which results in dissipation of steam reducing false alarms