

**Abstract**

- The video smoke detection system includes at least one device for taking video images (A), and a signal processing stage, in which the brightness of individual pixels or groups of pixels of the video images (A) is determined. The brightness of the pixels is determined by a process in which a value which represents the brightness is obtained. Changes to this value over time are investigated for a change which is characteristic of the occurrence of smoke. The brightness of the pixels is determined by an edge extraction process (5), in which an edge value is assigned to each pixel.
- 10 In addition to the edge extraction process (5), an investigation of the video images (A) for movements, called movement detection (7) below, takes place. The edge values are determined and movement is detected (7) on the basis of counter images (6, 8), which are continuously updated using a hysteresis algorithm.

