

Title (en)  
SMOKE DETECTOR ACCORDING TO THE RADIATION EXTINCTION PRINCIPLE

Publication  
**EP 0054680 B1 19870107 (DE)**

Application  
**EP 81108849 A 19811024**

Priority  
CH 934280 A 19801218

Abstract (en)  
[origin: ES8303773A1] A smoke detector contains two radiation transmitters and two radiation receivers. Each of the radiation transmitters emits in a different spectral region, for instance, one emits above and the other one below 600 nm. One part of the radiation of both radiation transmitters is conducted via a measuring path, which is accessible to smoke, to one of the receivers constituting a measuring radiation receiver, and another part of such radiation is conducted via a comparison path, which is not accessible to smoke, to the other of the receivers constituting a comparison radiation receiver. Connected to both radiation receivers is an evaluation circuit which forms from the measuring radiation intensities prevailing in the two spectral regions and from the comparison radiation intensities prevailing in the same spectral regions a function of the type: < IMAGE > By suitably adjusting or selecting the components of the evaluation circuit, the coefficients a and b are selected such that in the absence of smoke in the measuring path, A becomes zero and in the presence of smoke such is proportional to the smoke density.

IPC 1-7  
**G08B 17/10**

IPC 8 full level  
**G01N 21/59** (2006.01); **G08B 17/10** (2006.01); **G08B 17/103** (2006.01)

CPC (source: EP US)  
**G08B 17/103** (2013.01 - EP US); **G08B 29/24** (2013.01 - EP US)

Cited by  
DE102014009642B4; US4903894A; FR2666163A1; EP0813178A1; EA007944B1; EP0580110A1; US5473314A; EP0631263A1;  
DE102014009642A1; WO8805517A1; WO2005004075A1; EP3992638A1; EP3992637A1; EP3992639A1; EP4220189A1; EP4220190A2

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DK 543181 A 19811208; ES 508644 A 19811218; JP 20383681 A 19811218; NO 814089 A 19811130; US 32840381 A 19811207