

Title (en)

EVALUATION OF SCATTERED LIGHT SIGNALS IN AN OPTICAL ALARM SYSTEM AND EVALUATING BOTH A WEIGHTED SMOKE DENSITY SIGNAL AND A WEIGHTED DUST/STEAM DENSITY SIGNAL

Title (de)

AUSWERTEN VON STREULICHTSIGNALEN BEI EINEM OPTISCHEN GEFAHRENMELDER UND AUSGEBEN SOWOHL EINES GEWICHTETEN RAUCHDICHTESIGNALS ALS AUCH EINES GEWICHTETEN STAUB-/DAMPFDICHTE-SIGNALS

Title (fr)

ÉVALUATION DE SIGNAUX DE LUMIÈRE DIFFUSÉE DANS UN AVERTISSEUR OPTIQUE DE DANGER ET ÉMISSION TANT D'UN SIGNAL PONDÉRÉ DE DENSITÉ DE FUMÉE QUE D'UN SIGNAL PONDÉRÉ DE DENSITÉ DE POUSSIÈRE/VAPEUR

Publication

EP 2601644 A1 20130612 (DE)

Application

EP 12775645 A 20120925

Priority

- DE 102011083939 A 20110930
- EP 2012068875 W 20120925

Abstract (en)

[origin: WO2013045446A1] The invention relates to a method for evaluating two scattered light signals (IR, BL) in an optical alarm system (1) operating according to the scattered light principle. The particles with light, which are to be detected, are irradiated in a first and second wavelength range. The light scattered by the particles is converted into a first and a second non-standardized scattered light signal (IR', BL'). The two scattered light signals (IR', BL') are standardized with respect to one another in such a way that their amplitude profile for relatively large particles such as dust and steam approximately corresponds. Furthermore, the two standardized scattered light signals (IR, BL) are transformed into, in each case, a polar angle and in each case a distance as a polar coordinate of a polar coordinate system. Finally, in each case a smoke density signal (R) and a dust/steam density signal (SD) are formed from a current distance value (L), wherein for this purpose the respective current distance value (L) is weighted as a function of a current polar angle value (alpha), in opposite directions to one another. Finally, the weighted smoke density signal (R) and the weighted dust/steam density signal (SD) are output for a possible further evaluation with respect to fire detection variables. The invention also relates to a corresponding optical alarm system.

IPC 8 full level

G08B 17/107 (2006.01)

CPC (source: EP US)

G08B 17/107 (2013.01 - EP US)

Citation (search report)

See references of WO 2013045446A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2013045446 A1 20130404; AU 2012314586 A1 20130502; AU 2012314586 B2 20140123; CN 103140882 A 20130605; CN 103140882 B 20150204; DE 102011083939 A1 20130404; DE 102011083939 B4 20141204; EP 2601644 A1 20130612; EP 2601644 B1 20150304; ES 2535129 T3 20150505; HK 1181909 A1 20131115; RU 2013113969 A 20141010; RU 2536383 C2 20141220; US 2014197957 A1 20140717; US 9098989 B2 20150804

DOCDB simple family (application)

EP 2012068875 W 20120925; AU 2012314586 A 20120925; CN 201280003130 A 20120925; DE 102011083939 A 20110930; EP 12775645 A 20120925; ES 12775645 T 20120925; HK 13108902 A 20130730; RU 2013113969 A 20120925; US 201213876686 A 20120925