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(54) **Smoke detector and sampling air supplying method for smoke detector**

(57) In order to enable supply of a sampling air to a smoke detection portion at a stable flow velocity, the present invention provides a smoke detector including: a black box (21) including a smoke detection portion (25) having an inflow port and an outflow port; a sampling pipe (30) laid in a monitor space; a gas flow pipe (P) connected to the sampling pipe and which houses a fan (3) therein; a flow path branching portion (33) provided to the gas flow pipe on a secondary side of the fan and connected

to the inflow port of the smoke detection portion; and a flow path merging portion (32) which is provided to the gas flow pipe on the secondary side of the fan and connected to the outflow port of the smoke detection portion, and at which a pressure of a fluid flowing through the gas flow pipe is lower than a fluid flowing through the gas flow pipe at the flow path branching portion. Such pressure difference ensures that a constant flow rate is maintained in the smoke detection portion, thereby enabling a reliable smoke detection.

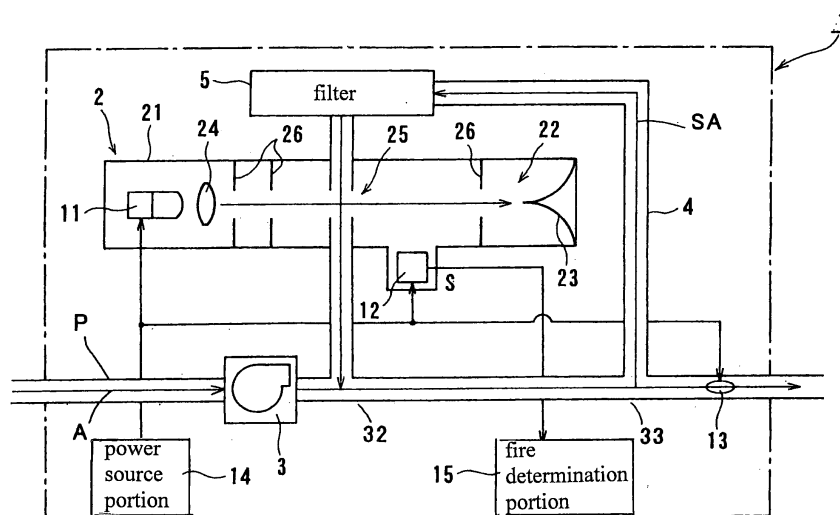


FIG. 1



EUROPEAN SEARCH REPORT

Application Number
EP 08 25 1196

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			G08B
Place of search		Date of completion of the search	Examiner
Munich		13 January 2009	Russo, Michela
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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