

Title (en)

ACOUSTIC ALARM HAVING A PIEZO-ELECTRIC ELEMENT DRIVEN AT MULTIPLE FREQUENCIES

Title (de)

AKUSTISCHER ALARM, DER EIN MIT MEHREREN FREQUENZEN ANGETRIEBENES PIEZOELEKTRISCHES ELEMENT AUFWEIST

Title (fr)

ALARME ACOUSTIQUE DOTE E D'UN ELEMENT PIEZO-ELECTRIQUE ACTIONNE A PLUSIEURS FREQUENCES

Publication

**EP 1507603 A1 20050223 (EN)**

Application

**EP 03730331 A 20030523**

Priority

- GB 0302268 W 20030523
- GB 0211987 A 20020523

Abstract (en)

[origin: GB2388995A] A sounder for an alarm having a piezo-electric element (1) and an electronic drive circuit (100) to drive the piezo-electric element to produce an audible sound perceived as a first tone at a first tonal frequency, the piezo-electric element having a dominant resonant frequency; the dominant resonant frequency is above the first tonal frequency and the electronic drive circuit is arranged to drive the piezoelectric element to produce the first tone sound; the piezo-electric element is also excited at the dominant resonant frequency while the first tone sound is produced.

IPC 1-7

**B06B 1/02**

IPC 8 full level

**B06B 1/02** (2006.01)

CPC (source: EP)

**B06B 1/0276** (2013.01)

Citation (search report)

See references of WO 03099468A1

Citation (third parties)

Third party :

- GB 2101452 A 19830112 - RICOH KK [JP]
- EP 1174835 A2 20020123 - RAFIKI PROT LTD [GB]

Cited by

EP3415243A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

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DOCDB simple family (publication)

**GB 0211987 D0 20020703; GB 2388995 A 20031126; GB 2388995 B 20040630;** AU 2003241013 A1 20031212; EP 1507603 A1 20050223; EP 1507603 B1 20141203; ES 2527050 T3 20150120; WO 03099468 A1 20031204

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