



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
09.04.2003 Bulletin 2003/15

(51) Int Cl.7: **G08B 21/00, G01N 33/00**

(43) Date of publication A2:
20.09.2000 Bulletin 2000/38

(21) Application number: **00650013.6**

(22) Date of filing: **02.03.2000**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
 Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **05.03.1999 IE 990186**
06.05.1999 IE 990368

(71) Applicant: **E.I. Technology Limited**
Shannon, County Clare (IE)

(72) Inventors:
 • **Byrne, Michael**
Limerick (IE)

• **Duignan, James**
Clonmacken, Limerick (IE)
 • **Flynn, Fergus**
Newmarket-on-Fergus, County Clare (IE)
 • **Guinee, Michael**
Limerick (IE)

(74) Representative: **Weldon, Michael James et al**
c/o John A. O'Brien & Associates,
Third Floor,
Duncairn House,
14 Carysfort Avenue
Blackrock, Co. Dublin (IE)

(54) **A gas sensing alarm device**

(57) An alarm device (1) has a circuit (10) with a microcontroller (11) which activates a green LED (4) to indicate normal operation, a yellow LED (6) to indicate if there is a fault, and a red LED (5) to indicate an alert arising from carbon monoxide concentration exceeding a volt. If the user presses a test/hush button (3) the microcontroller indicates the peak concentration since a memory was last reset. Continuing to press the button causes the memory to be reset. This provides peace of mind to the user.

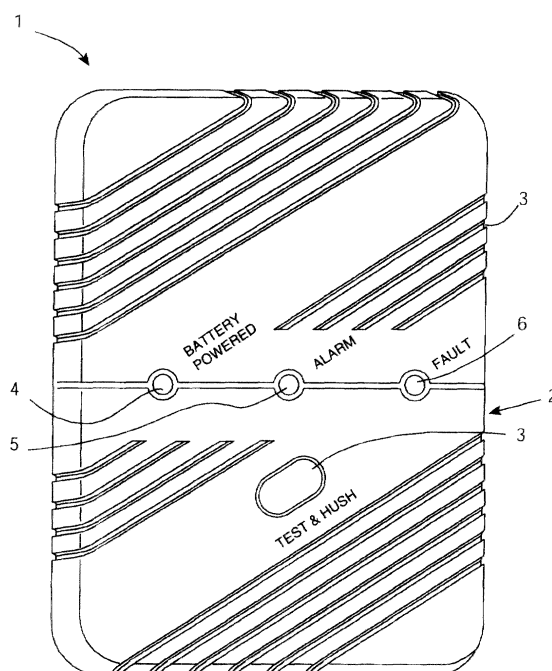


Fig. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 65 0013

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 526 280 A (CONSADORI FRANCO ET AL) 11 June 1996 (1996-06-11)	1-5,11, 14,17	G08B21/00 G01N33/00
A	* column 1, line 50-65 * * column 4, line 65 - column 5, line 34 * * column 5, line 60-67 * * column 10, line 26-31 * * column 10, line 47 - column 11, line 7 * * column 12, line 60-65 * * column 14, line 23 - column 15, line 25; figures 1,4,6,7B,7C *	12	
A	--- PATENT ABSTRACTS OF JAPAN vol. 1996, no. 08, 30 August 1996 (1996-08-30) & JP 08 110252 A (FUJI ELECTRIC CO LTD), 30 April 1996 (1996-04-30) * abstract *	12	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G08B G01N
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 30 January 2003	Examiner Wright, J
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			

EPO FORM 1503 03/92 (P04C01)



European Patent
Office

Application Number
EP 00 65 0013

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☒ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



European Patent
Office

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 00 65 0013

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-11

Gas sensing alarm device with a particular arrangement of generating an alert based on historic gas level data

2. Claims: 12-13

Method of programming an alarm device according to claims 1-11.

3. Claims: 14-17

Method of calibrating a CO sensing device, including the steps of placing the device in a particular atmosphere and writing calibration data to the sensor.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 65 0013

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-01-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5526280	A	11-06-1996	AU 2399895 A	29-11-1995
			WO 9530144 A1	09-11-1995

JP 08110252	A	30-04-1996	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82