

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



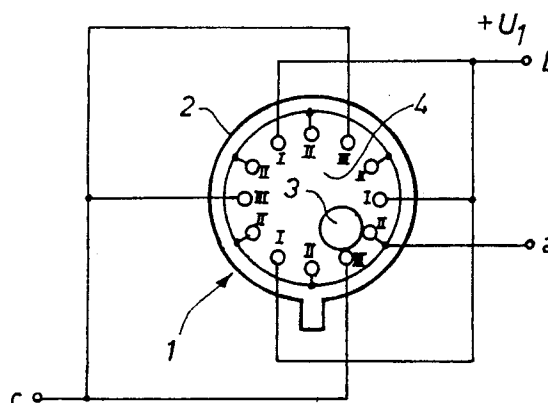
(11) Publication number:

0 537 812 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92202699.2**(51) Int. Cl.⁶: **F42C 13/00**(22) Date of filing: **07.09.92**(30) Priority: **16.09.91 SE 9102662**(43) Date of publication of application:
21.04.93 Bulletin 93/16(84) Designated Contracting States:
DE GB NL(88) Date of deferred publication of the search report:
15.03.95 Bulletin 95/11(71) Applicant: **Bofors Aktiebolag****S-691 80 Karlskoga (SE)**(72) Inventor: **Bjelvert, Sven**
Anells väg 6
S-633 69 Eskilstuna (SE)
Inventor: **Sahlin, Göran**
Klarbärsvägen 2
S-633 53 Eskilstuna (SE)(74) Representative: **Nydell, Peder**
Nydells Patentbyrå
Hägnen 2573
S-380 30 Rockneby (SE)(54) **A position-disturbance sensor.**

(57) A position-disturbance sensor for sensing any position-disturbance or "upset" of the sensor from a predetermined rest position. The sensor (1) includes a housing (2) with an easily movable metal ball (3) or the like, which, upon any upset of the sensor, makes contact with two of a plurality of contact pins (I-III) fixedly placed in the housing for connecting or disconnecting a supply voltage (U_1) to an electronic circuit (5). The circuit has a first capacitor (C2) capable of, at each connection of the supply voltage, receive a charge addition, the voltage across the capacitor (C2) reaching a predetermined level only upon a certain number of connections of the supply voltage, in order to indicate an upset of the sensor. The circuit has also a second capacitor (C1) being incorporated in a RC-circuit (R1, C1) which is so dimensioned that the second capacitor (C1) will not substantially be discharged during rapid contact changes of the ball (3), e.g. when the sensor is upset as a result of an explosion at the vicinity of the sensor.

**FIG. 1****EP 0 537 812 A3**



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

DOCUMENTS CONSIDERED TO BE RELEVANT			EP 92202699.2																
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)																
A	<u>DE - A - 3 902 629</u> (DYNAMIT NOBEL) * Abstract; column 1, line 3 - column 2, line 21; fig. 1; claims 1,8,9 * --	1,2	H 01 H 35/02																
A	<u>EP - A - 0 305 940</u> (HONEYWELL) * Abstract; column 1, lines 1-23; fig. 1; claim 1 * --	1																	
A	<u>EP - A - 0 343 328</u> (LECTRON PRODUCTS) * Abstract; column 1, line 4 - column 2, line 15; fig. 1,2; claim 1 * --	1																	
A	<u>DE - A - 3 320 303</u> (PRÜFTECHNIK DIETER BUSCH) * Abstract; page 4, line 10 - page 5, line 14; fig. 1; claim 1 * ----	1																	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)																
			H 01 H																
The present search report has been drawn up for all claims																			
Place of search VIENNA		Date of completion of the search 23-12-1994	Examiner BADICS																
<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS</td><td>T : theory or principle underlying the invention</td></tr><tr><td>X : particularly relevant if taken alone</td><td>E : earlier patent document, but published on, or</td></tr><tr><td>Y : particularly relevant if combined with another</td><td>after the filing date</td></tr><tr><td>document of the same category</td><td>D : document cited in the application</td></tr><tr><td>A : technological background</td><td>L : document cited for other reasons</td></tr><tr><td>O : non-written disclosure</td><td>.....</td></tr><tr><td>P : intermediate document</td><td>& : member of the same patent family, corresponding</td></tr><tr><td></td><td>document</td></tr></table>				CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention	X : particularly relevant if taken alone	E : earlier patent document, but published on, or	Y : particularly relevant if combined with another	after the filing date	document of the same category	D : document cited in the application	A : technological background	L : document cited for other reasons	O : non-written disclosure	P : intermediate document	& : member of the same patent family, corresponding		document
CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention																		
X : particularly relevant if taken alone	E : earlier patent document, but published on, or																		
Y : particularly relevant if combined with another	after the filing date																		
document of the same category	D : document cited in the application																		
A : technological background	L : document cited for other reasons																		
O : non-written disclosure																		
P : intermediate document	& : member of the same patent family, corresponding																		
	document																		