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54 **Improvements relating to operating control arrangements for fluidic devices.**

57 A fluidic device operating arrangement which is especially for the remote control of a fluidic device in potentially explosive or electrically vulnerable environments comprises optical signal generating means and transducer means for converting the output derived from the optical signal generating means into a mechanical output either directly or through the intervention of further means to produce the requisite flow of operating fluid in the device for the operation thereof.

The transducer means may comprise a gas-filled light transmissive vessel which contains a small volume of fibrous material which undergoes very rapid heating and produces consequential expansion of the vessel walls for generating a mechanical pressure pulse which can be transmitted to the operating fluid fed to one or more control ports of the associated fluidic device.



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. 4)
X	US-A-4 512 371 (DRZEWIECKI) * Column 2, line 55 - column 3, line 17 *	1-3,8, 10	F 15 C 1/04
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X	US-A-3 760 848 (REHSTEINER) * Column 5, lines 15-27 *	1,2,5,6 ,10	
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X	GB-A-2 165 062 (GENERAL ELECTRIC CO.) * Whole document *	1,2,5,6 ,8,10	
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X	CH-A- 416 181 (SPERRY RAND) * Whole document *	1-3,8, 10	
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A	US-A-4 610 274 (GLOMB)		
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A	US-A-4 606 375 (HOCKADAY)		
	---		
A	US-A-3 591 809 (SORENSEN)		
	---		
A	US-A-3 228 411 (STRAUB)		
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A	US-A-3 534 754 (BEEKEN)		
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21-02-1989	Examiner KNOPS J.
<b>CATEGORY OF CITED DOCUMENTS</b>			
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	