



(11) **EP 0 764 960 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**15.03.2000 Bulletin 2000/11**

(51) Int Cl.7: **H01H 35/34**, H01H 1/58,  
H01H 9/04

(43) Date of publication A2:  
**26.03.1997 Bulletin 1997/13**

(21) Application number: **96306625.3**

(22) Date of filing: **12.09.1996**

(84) Designated Contracting States:  
**DE FR GB IT NL**

- **Thayer, James R.**  
**Versailles, KY 40383 (US)**
- **Hancock, John T.**  
**Versailles, KY 40383 (US)**

(30) Priority: **19.09.1995 US 3993**

(71) Applicant: **TEXAS INSTRUMENTS  
INCORPORATED**  
**Dallas Texas 75265 (US)**

(74) Representative:  
**Blanco White, Henry Nicholas et al**  
**ABEL & IMRAY**  
**20 Red Lion Street**  
**London WC1R 4PQ (GB)**

(72) Inventors:  
• **Sehlhorst, Scott B.**  
**Lexington, KY 40517 (US)**

(54) **Fluid pressure responsive electric switch and method for assembling same**

(57) A fluid pressure responsive electric switch (10) is shown having an elongated base (12) in which first and second terminals (34, 48) are mounted by dropping them into respective slots (26, 28). The terminals are provided with tabs (38, 52) to engage with a platform (30) of the base to limit motion in one direction and are in turn engaged by a guide member (62) to prevent motion in an opposite direction. The guide member (62) has a cylindrical force transfer portion (86) aligned with the weld portion (104) of a sensor assembly (92) to transfer force without adversely affecting the calibration of the sensor assembly. Electrical leads (118, 120) have connectors (126, 128) attached to an end thereof along with cylindrical gaskets (134) which form an interference fit in bores (22, 20) of the base to provide an environmental seal at the same time electrical connection is made to the terminals. In a modified embodiment a special thermal isolation fitting (140) is shown particularly adapted for use in sealed refrigeration applications.

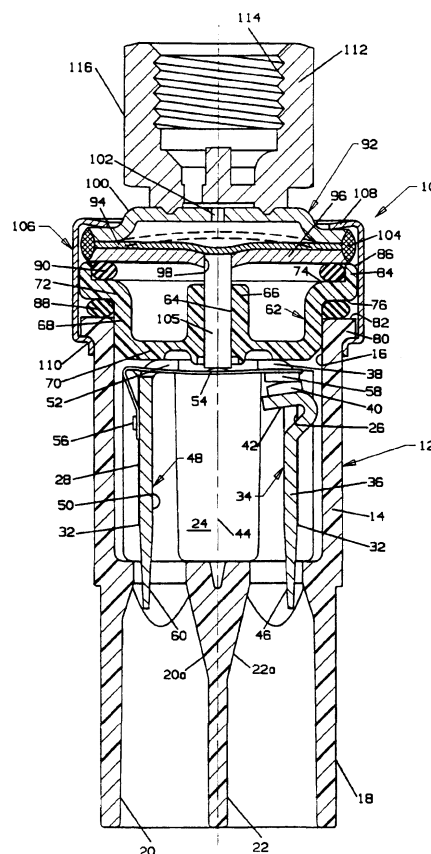


FIG. 1

EP 0 764 960 A3



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 96 30 6625

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.6)
Y,D	FR 2 211 715 A (TEXAS INSTRUMENTS INC) 19 July 1974 (1974-07-19) * the whole document *	1-5	H01H35/34 H01H1/58 H01H9/04
Y	US 4 296 287 A (BOULANGER HENRY J ET AL) 20 October 1981 (1981-10-20) * abstract; claims; figures *	1-5	
A	EP 0 403 254 A (TEXAS INSTRUMENTS INC) 19 December 1990 (1990-12-19) * abstract; figure 3 *	1-5	
A	US 4 638 721 A (BOULANGER HENRY J) 27 January 1987 (1987-01-27) * abstract; claims; figures *	1-5	
A	US 5 123 332 A (THAYER JAMES R ET AL) 23 June 1992 (1992-06-23) * abstract; claims; figures *	1-5	
A	EP 0 652 607 A (SUMITOMO WIRING SYSTEMS) 10 May 1995 (1995-05-10) * abstract; claims; figures *	5-13	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	EP 0 646 991 A (SUMITOMO WIRING SYSTEMS) 5 April 1995 (1995-04-05) * claims; figures *	5-13	H01H H01R
A	US 5 266 045 A (YAMAMOTO TAKAYUKI ET AL) 30 November 1993 (1993-11-30) * abstract; claims; figures *	5-13	
A	EP 0 520 291 A (YAZAKI CORP) 30 December 1992 (1992-12-30) * claims; figures *	5-13	
A	US 4 667 069 A (CHOLKERI PANDU R) 19 May 1987 (1987-05-19)		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 January 2000	Examiner Durand, F
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>&amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/82 (P04C01)

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

EP 96 30 6625

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.

20-01-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2211715 A	19-07-1974	US 3816685 A	11-06-1974
		DE 2360609 A	27-06-1974
		GB 1449855 A	15-09-1976
		IT 994403 B	20-10-1975
		JP 1116876 C	15-10-1982
		JP 49096275 A	12-09-1974
		JP 57006771 B	06-02-1982
		NL 7313243 A,B,	28-06-1974
US 4296287 A	20-10-1981	NONE	
EP 0403254 A	19-12-1990	US 5025667 A	25-06-1991
		DE 69015704 D	16-02-1995
		DE 69015704 T	24-05-1995
		JP 2858882 B	17-02-1999
		JP 3075537 A	29-03-1991
		US 5060520 A	29-10-1991
US 4638721 A	27-01-1987	NONE	
US 5123332 A	23-06-1992	NONE	
EP 0652607 A	10-05-1995	JP 2785664 B	13-08-1998
		JP 7142117 A	02-06-1995
		EP 0955697 A	10-11-1999
		US 5607318 A	04-03-1997
EP 0646991 A	05-04-1995	JP 7094235 A	07-04-1995
		DE 69408931 D	16-04-1998
		DE 69408931 T	25-06-1998
		US 5573429 A	12-11-1996
US 5266045 A	30-11-1993	NONE	
EP 0520291 A	30-12-1992	DE 69214202 D	07-11-1996
		DE 69214202 T	06-03-1997
		KR 9607969 Y	19-09-1996
US 4667069 A	19-05-1987	AU 587044 B	03-08-1989
		AU 6008886 A	19-02-1987
		BR 8603922 A	24-03-1987
		CA 1270024 A	05-06-1990
		DE 3689497 D	17-02-1994
		DE 3689497 T	16-06-1994
		DK 391286 A	17-02-1987
		EP 0212255 A	04-03-1987

EPO FORM P0459

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

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

EP 96 30 6625

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.

20-01-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4667069      A		IL            79390 A	17-09-1990
		JP        62044921 A	26-02-1987
		KR        9408188 B	07-09-1994
		NZ            216820 A	08-01-1988
<hr/>			