

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2019/082686

**A. CLASSIFICATION OF SUBJECT MATTER****H01H 85/02**(2006.01)i; **H01H 9/10**(2006.01)i; **H01H 9/54**(2006.01)i; **H01H 39/00**(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

H01H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4920446 A (PFLANZ HERBERT M [US]) 24 April 1990 (1990-04-24)	1,4,7,10
Y	column 2, line 53 - column 5, line 50; figures 1-10	2,3,5,6,8,9,11
Y	FR 3063570 A1 (MERSEN FRANCE SB SAS [FR]) 07 September 2018 (2018-09-07) page 5, line 20 - page 19, line 6; figures 1-6	2,3,5,6,8,9,11
Y	WO 2017042321 A1 (MERSEN FRANCE SB SAS [FR]) 16 March 2017 (2017-03-16) page 4, line 29 - page 11, line 30; figures 1-6	5

 Further documents are listed in the continuation of Box C. See patent family annex.

\* Special categories of cited documents:

“A” document defining the general state of the art which is not considered to be of particular relevance

“E” earlier application or patent but published on or after the international filing date

“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

“O” document referring to an oral disclosure, use, exhibition or other means

“P” document published prior to the international filing date but later than the priority date claimed

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&” document member of the same patent family

Date of the actual completion of the international search

19 December 2019

Date of mailing of the international search report

10 January 2020

Name and mailing address of the ISA/EP

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**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

International application No.

**PCT/EP2019/082686**

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
US 4920446 A	24 April 1990	NONE	
FR 3063570 A1	07 September 2018	NONE	
WO 2017042321 A1	16 March 2017	CA 2996694 A1 CN 107949895 A EP 3347908 A1 FR 3041143 A1 JP 2018535629 A KR 20180048695 A RU 2018108107 A US 2018277325 A1 WO 2017042321 A1	16 March 2017 20 April 2018 18 July 2018 17 March 2017 29 November 2018 10 May 2018 06 September 2019 27 September 2018 16 March 2017