

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**
(PCT Rule 43*bis*.1)

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/SI2018/000026

International filing date (day/month/year)
05.12.2018

Priority date (day/month/year)
29.11.2018

International Patent Classification (IPC) or both national classification and IPC
INV. H01H85/08 H01H85/36

Applicant
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1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:

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Date of completion of this opinion

see form PCT/ISA/210

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-6</u>
	No: Claims	

Inventive step (IS)	Yes: Claims	<u>1-6</u>
	No: Claims	

Industrial applicability (IA)	Yes: Claims	<u>1-6</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

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Reference is made to the following document:

D2 US 2 296 627 A (BROWN GEORGE R) 22 September 1942 (1942-09-22)

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Document D2 is regarded as being the prior art closest to the subject-matter of claim 1, and discloses:

Electro thermal fuse, comprising a tubular casing (10) consisting of electric insulating material, which is on each of its terminal portions closed by a cover (11), which is also functioning as a contact member consisting of an electric conductive material, which is suitable for integration of the fuse into each disposable electric circuit, while an electric conductor (12) is inserted throughout the passage within said hollow casing and is during the normal operation of the fuse, namely when the electric current is allowed to flow through said electric conductor, via at least one soldered contact (15) electrically interconnected with said contact members, but is in the case of the electric overload within said circuit and generated heat and consequently melting and interruption of said at least one soldered contact displaceable away from at least one of said contact members by means of a spring (27), by which the electric current through the fuse is then interrupted.

The subject-matter of claim 1 therefore differs therefrom in that:

said tubular casing consists of ceramics, and each of said contact members is furnished with at least approximately centrally arranged throughout passage, so that the electric conductor is inserted through said passages within said contact members and is by means of solder, which is located on the external side of the fuse, firmly and electric conductively connected with each of said contact members, wherein said conductor is in the one terminal area of the fuse extended and ended with appropriate thicker portion, so that a spring is placed around said conductor and is inserted between said thicker portion and the belonging contact member with said solder, and wherein the residual volume within said passage in the casing of the fuse, namely the area between said conductor and the casing as well as between said contact members, is filled with a pre-determined quantity of arc preventing filler of the basis of properly granulated silica.

The problem to be solved by the present invention may be regarded as how to provide an alternative fuse arrangement.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) as it is not suggested by any of the available prior art.

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Claims 2-6 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.