Datasheet for the decision
of 3 August 2017

Case Number: T 1519/15 - 3.2.01
Application Number: 09169604.7
Publication Number: 2119608
IPC: B60S1/08, G01N27/22
Language of the proceedings: EN

Title of invention:
Rain sensor with capacitive-inclusive circuit

Applicant:
GUARDIAN INDUSTRIES CORP.

Headword:

Relevant legal provisions:
EPC Art. 54(3), 87(1), 111(1)

Keyword:
Priority - partial priority (yes)
Novelty - (yes)
Remittal to the department of first instance - (yes)

Decisions cited:
G 0001/15
Catchword:
Case Number: T 1519/15 - 3.2.01

DECISION
of Technical Board of Appeal 3.2.01
of 3 August 2017

Appellant: GUARDIAN INDUSTRIES CORP.
(Applicant)
2300 Harmon Road,
Auburn Hills, MI 48326-1714 (US)

Representative: Hess, Peter K. G.
Bardele Pagenberg Partnerschaft mbB
Patentanwälte, Rechtsanwälte
Prinzregentenplatz 7
81675 München (DE)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 12 March 2015
refusing European patent application No.
09169604.7 pursuant to Article 97(2) EPC.

Composition of the Board:
Chairman: G. Pricolo
Members: W. Marx
P. de Heij
Summary of Facts and Submissions

I. The appeal lies against the decision of the Examining Division refusing European patent application No. 09 169 604.7, posted on 12 March 2015.

II. The grounds for the decision are given by mere reference to communications of the Examining Division, the applicant having requested a decision according to the state of the file.

The grounds relate exclusively to the lack of novelty under Article 54(3) EPC of the subject-matter of claim 1 (main and auxiliary request) in view of the embodiment of figures 4 to 6 of document D3: EP 1 971 509 A2,

which is the parent application of the present application, which is a divisional application thereof.
III. Claim 1 according to the main request underlying the decision under appeal reads as follows:

1. A rain sensor comprising:

   a sensing circuit comprising at least first and second sensing capacitors (C₁, C₂) that are sensitive to moisture on an external surface of a window (1; 10);

   the sensing circuit further comprising at least one mimicking capacitor (Cₐₙ₉) that mimics charging and discharging the first sensing capacitor;

   wherein a writing pulse causes at least the first sensing capacitor (C₁) and the mimicking capacitor (Cₐₙ₉) to be charged, and an erasing pulse causes each of the first sensing capacitor (C₁) and the mimicking capacitor (Cₐₙ₉) to substantially discharge;

   wherein presence of rain on the external surface of the window in a sensing field of the first sensing capacitor (C₁) causes a voltage at an output electrode of the mimicking capacitor (Cₐₙ₉) to fluctuate in a manner proportional to fluctuation of voltage at an output electrode of the first sensing capacitor (C₁), even though the rain is not present in a field of the mimicking capacitor;

   wherein rain is detected based on an output signal from the output electrode of the mimicking capacitor, wherein the output signal is read at least between an end of the writing pulse and a beginning of the erase pulse;

   wherein the output signal from the output electrode of the mimicking capacitor (Cₐₙ₉) is converted from analog to digital, and thereafter is subjected to processing for determining whether rain is present on the external surface of the window, and wherein said processing preferably comprises autocorrelation and/or cross-correlation.
IV. The parent application D3 claims the priority of several patent applications, the earlier of which is

P1: 60/757,479 10 January 2006 US.

The other priority claims of D3 have a later date, namely 27 January 2006.

The Examining Division specifically referred to

P2: 11/340,859 27 January 2006 US,

and held that claim 1 does not benefit from the priority date (Article 87(1) EPC) of P1 but only from the (later) priority date of P2, because the disclosure of P1 is limited to a specific circuit having four sensing capacitors, one mimicking capacitor and seven transistors. Since claim 1 of the present application generalises the number of sensing capacitors and omits the transistors, the subject-matter of claim 1 is not the same invention in the sense of Article 87(1) EPC. Accordingly, the effective date of claim 1 is the priority date of P2 and thus Figures 4 to 6 of document D3, which are disclosed in the priority document P1, belong to the state of the art according to Article 54(3) EPC for the present application.

V. With communication dated 23 May 2017, the Board informed the appellant that it considered the conclusion of the Examining Division incorrect and that it intended to set aside the decision under appeal and remit the case to the Examining Division for further prosecution.

VI. In its reply of 20 July 2017, the appellant stated its agreement with the remittal of the case to the
Examining Division for further prosecution and withdrew its request for further oral proceedings before the Board of Appeal.

Reasons for the Decision

1. According to decision G 1/15, "entitlement to partial priority may not be refused for a claim encompassing alternative subject-matter by virtue of one or more generic expressions or otherwise (generic "OR"-claim) provided that said alternative subject-matter has been disclosed for the first time, directly, or at least implicitly, unambiguously and in an enabling manner in the priority document. No other substantive conditions or limitations apply in this respect."

2. Claim 1 of the present application includes the generic expressions

"a sensing circuit comprising at least first and second sensing capacitors", and

"at least one mimicking capacitor".

Claim 1 does not specify whether there are any transistors. It thus encompasses the specific embodiment of Figs. 4 to 6 of document D3, which embodiment is also disclosed in the present application, see the identical Figs. 4 to 6.

Since this embodiment is disclosed in P1 (see pages 19 to 21), claim 1 is entitled to the priority of P1 in respect of the specific embodiment. The remaining (general) subject-matter claimed, i.e. in particular a sensing circuit having a number other than four sensing
capacitors, is not disclosed in P1 and only benefits from the priority date of P2. Figures 4 to 6 of D3 thus do not belong to the state of the art under Article 54(3) EPC for the specific embodiment with four sensing capacitors falling within the ambit of claim 1. As regards the remaining embodiments encompassed by claim 1, for example those with a number of capacitors other than four, figures 4 to 6 of D3 are not relevant to novelty under Article 54(3) EPC. The disclosure of D3 relating to a number of sensing capacitors other than four, see e.g. claim 1, moreover, is not entitled to the priority of P1.

3. It follows from the above that the decision under appeal is to be set aside.

4. As explained in the communication of 23 May 2017, and agreed upon by the appellant, the Board considers it appropriate to remit the case to the department of first instance for further prosecution (Article 111(1) EPC). The Board has noted the statement made in the communication of 31 May 2011 during examination proceedings, according to which claim 1 was not objected to under Article 56 EPC in view of the feature relating to the use of a mimicking capacitor. However, this is a statement made by the primary examiner and not by the Examining Division, and moreover formal requirements, such as the adaptation of the description, have not been yet subject of discussion.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance for further prosecution.

The Registrar: The Chairman:

A. Vottner G. Pricolo

Decision electronically authenticated