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**Datasheet for the decision
of 22 March 2022**

Case Number: T 0885/18 - 3.5.02

Application Number: 13161712.8

Publication Number: 2645393

IPC: H01H27/00

Language of the proceedings: EN

Title of invention:

Safety switch with dual anti-tamper

Patent Proprietor:

Idem Safety Switches Limited

Opponent:

EUCHNER GmbH + Co. KG

Relevant legal provisions:

EPC Art. 54(3)

RPBA 2020 Art. 13(2)

Keyword:

Novelty - (no) - all requests

Amendment after summons - exceptional circumstances (no)

Request during oral proceedings to allow inventor to make oral submissions regarding novelty - not allowed

Decisions cited:

G 0004/95



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Case Number: T 0885/18 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 22 March 2022

Appellant: Idem Safety Switches Limited
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 26 January 2018
revoking European patent No. 2645393 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman R. Lord
Members: F. Giesen
J. Hoppe

Summary of Facts and Submissions

- I. The present appeal by the patent proprietor (appellant) lies from the decision of the opposition division posted on 26 January 2018 revoking European patent No. 2645393 pursuant to Article 101(3)(b) EPC.
- II. Reference will be made in this decision to the following documents:

D1: WO 2013/087183 A1
D13: DE 43 28 297 C1
- III. With their reply to the statement of grounds of appeal, the respondent raised *inter alia* a novelty objection based on D1.
- IV. In a communication pursuant to Article 15(1) RPBA 2020, the board informed the parties *inter alia* of their preliminary opinion that the appeal was likely to be dismissed, because the subject-matter of claim 7 of the main request appeared not to be new in view of document D1 and because each of the first to fourth auxiliary requests contained a claim identical to that claim.
- V. By letter dated 21 March 2022, one day before the oral proceedings, the representative of the appellant announced that she would be accompanied to the oral proceedings by one of the inventors of the patent in suit.
- VI. Oral proceedings before the board took place on 22 March 2022 in the format of a videoconference.

The final requests of the parties were as follows:

The appellant (patent proprietor) requests that

the decision under appeal be set aside and the patent be maintained as granted (main request), or as an auxiliary measure that the patent be maintained in amended form on the basis of one of the first to fourth auxiliary requests, filed with the statement of grounds of appeal.

The respondent (opponent) requests that

the appeal be dismissed.

VII. During the oral proceedings, the appellant submitted for the first time in the appeal proceedings that the subject-matter of claim 7 of the main request was new in view of D1 because this document did not disclose a coded RFID sensor. Also during the oral proceedings, the appellant's representative requested that the accompanying person be allowed to speak on the matter of novelty of claim 7. After the chairman had announced the conclusion of the board concerning novelty of all requests, the appellant requested that they be given time to draft and file further claim requests in which claim 7 was to be deleted.

VIII. The wording of claim 7 of the main request is as follows:

"A method of operating a safety interlock switch which includes a coded rotary cam system (6) operated by a coded tongue (8), the switch being of

the positively operated type in which the switch must be positively operated by the cam system (6) in order to switch off the power to attendant machinery, characterised in that the switch further comprising [sic] a second interlock in the form of a non-contact RFID sensor (16, 18), the method comprising the steps of firstly inserting the coded tongue (8) to rotate the cam, secondly checking the code of RFID sensor (16, 18) when the tongue (8) is part inserted to ensure that the code is correct and enabling power only when both interlocks are correctly coded."

Each of the first to fourth auxiliary requests includes a claim with identical wording to that claim.

Each of the main request and first to fourth auxiliary requests also contains an independent claim directed to an interlock switch. In view of the reasons for this decision, the wording of those claims is not reproduced here.

IX. The arguments of the appellant that are relevant for the present decision were essentially as follows:

Document D1 did not disclose a coded RFID sensor but rather merely a proximity switch, which only recognised the position of the second part of the actuator. That meant it merely detected its presence. However, coding was not disclosed.

This submission, although presented for the first time during the oral proceedings, should be admitted because it was highly relevant. The appellant did not comment on the question of the chairman whether there were special circumstances justifying the late-filing.

Furthermore, D1 did not disclose that the RFID code was checked when the tongue was partly inserted, as required by claim 7. The reason for this feature was to ensure that there was a predetermined safety check in order to ensure that correct components were in place. This provided redundancy. If one of the components broke, the system could remain safe. Claim 7 was directed to a particular check pattern. This was not only the case when the actuator was being inserted but also when it was being retracted. Claim 7 therefore contained a check of a partial sequence of insertion. In dependent claims 8 to 9, there were obviously other features with which faults and locking systems could be determined. By employing the correct sequence, everything was safe and secure. Claim 3 defined that checking the codes in a specific sequence included determining the position condition of the interlock. However, a disclosure of detecting the position of the RFID sensor was not tantamount to a disclosure of a coded RFID sensor, as claim 3 had to be read together with claim 2. Determining a position was thus part of the insertion of the interlock.

Moreover, claim 7 related to separate interlocks, which were able to keep the device safe separately and independently of each other. Paragraphs [0022] to [0025] of the opposed patent described the various sequences of checks the interlock went through. These sequences were broadly expressed in claim 7. D1 disclosed effectively only a one part operator, which did not operate as two independent interlock devices. The interlock of D1 was not able to independently provide power. D1 was really only concerned with mechanical coding. The transponder was only for safety, when there was mechanical breakage. In contrast, the

device according to claim 7 was an anti-tamper device. According to column 6 line 40 ff. of the description of the opposed patent the two separate interlocks provided for mechanical redundancy.

- X. The arguments of the respondent that are relevant for the present decision were essentially as follows:

The subject-matter of claim 7 lacked novelty in view of D1. According to claim 7, D1 concerned an interlock switch. According to claim 1 and page 10, first paragraph of D1, the interlock switch comprised an actuator (20) with a coded tongue (22). This coded tongue could be inserted in the corresponding portion of the switch thereby operating a rotary cam wheel. According to page 1, last paragraph of D1 further reference was made to document D13 for further details of the rotary cam wheel. It was apparent from this document, column 2, line 55 to column 3, line 44 that the expression "Schaltrad" referred to a rotary cam wheel.

According to page 4, second and third paragraph of D1, the interlock switch comprised, further to a mechanical interlock, a proximity switch, which could detect a transponder on the actuator. In order to do this, the proximity switch emitted electromagnetic radiation, which was modified by the presence of the transponder. In particular the response signal of the transponder according to this passage was a disclosure of a code. This was a disclosure of a second interlock in the form of a non-contact RFID sensor.

According to page 11, last paragraph to page 12, first paragraph of D1, a first switching operation was carried out when the mechanically coded tongue was

inserted with the head portion. Following this, a second switching operation was initiated by the RFID sensor to check whether a safety barrier was fully closed before providing control of the machine. This passage disclosed in particular, that first the coded tongue (22) was detected in the head portion, and only after that the proximity switch detected the transponder 24.

The late-filed submission of the appellant according to which D1 did not disclose a coded RFID sensor should not be taken into account. The appellant had neither reacted to the respondent's reply to the statement of grounds of appeal, nor to the preliminary opinion of the board. Also for that reason the appellant should not be given further time during the oral proceedings to prepare and file an amended request. Furthermore, the accompanying person had only been announced one day before the oral proceedings without giving any explanation. Given the short notice, the accompanying person should not be allowed to speak.

Reasons for the Decision

1. *Admissibility*

The appeal meets the requirements of Articles 106 and 108 EPC as well as Rule 99 EPC. It is therefore admissible.

2. *Submissions of Accompanying Person*

2.1 The requirements for allowing the accompanying person to speak have not been met.

2.2 According to established case law of the boards of appeal, in particular according to the headnote of decision G 0004/95, oral submissions by persons accompanying the professional representative cannot be made as a matter of right, but only with the permission of and under the discretion of the EPO. In order for oral submissions by an accompanying person to be allowed, the corresponding request should be made sufficiently in advance of the oral proceedings so that all parties are able to properly prepare themselves in relation to the proposed oral submissions. In contrast, a request which is made shortly before or at the oral proceedings should in the absence of exceptional circumstances be refused, unless each opposing party agrees to the making of the oral submissions requested.

2.3 These conditions are not fulfilled in the present case. The opposing party did not agree to the request. Furthermore, the request was made only at the oral proceedings. The board and the respondent were informed of the fact that the professional representative would be accompanied at all only one day prior to the oral proceedings, and it was not then announced that it was envisaged that the accompanying person would speak. The appellant did not point out any exceptional circumstances.

2.4 The board therefore refused the request.

3. *Main Request - Novelty*

3.1 The subject-matter of claim 7 of the main request is not new in view of the method disclosed in document D1.

3.2 Document D1 is comprised in the state of the art according to Article 54(3) EPC.

D1 is a Euro-PCT application within the meaning of Article 153(2) EPC, which was published on 20 June 2013 in German. D1 claims the priority date of 12 December 2011, which is earlier than the priority date claimed by the opposed patent, viz. 30 March 2012.

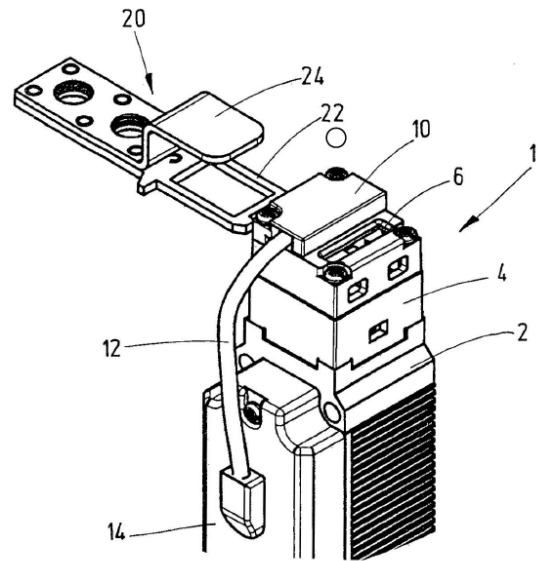
The applicants of D1 filed a request for entering the European phase on 6 May 2014, which met the requirements of Rule 159(1) EPC.

It follows from the foregoing that, pursuant to Article 153(5) EPC, D1 is to be considered as comprised in the state of the art under Article 54(3) EPC, because the conditions laid down in Article 153(3) EPC and in the Implementing Regulations, in particular in Rule 165 EPC, are fulfilled.

3.3 Document D1 discloses (references refer to D1)

a method of operating a safety interlock switch (1) which includes a coded rotary cam system ("Schaltrad") operated by a coded tongue (22), the switch being of the positively operated type in which the switch must be positively operated by the cam system in order to switch off

the power to attendant machinery (page 1, lines 5 to 10), characterised in that the switch further comprises a second interlock in the form of a non-contact RFID sensor (proximity sensor 10, portion 24, page 4, lines 20 to 28), the method comprising the steps of

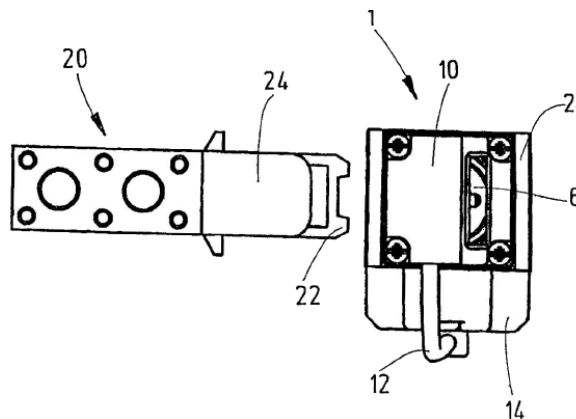


reproduction of figure 4 of D1

firstly inserting the coded tongue (22) to rotate the cam, secondly checking the code of RFID sensor (10, 24) when the tongue (22) is part inserted to ensure that the code is correct and enabling power only when both interlocks are correctly coded (page 11, line 22 to page 12, line 6).

The German expression "Schaltrad" translates to rotary cam wheel. Even if this were doubted, D1 makes a specific reference on page 10, lines 6 to 10 for details of the "Schaltrad" to document D13, which shows in its sole figure clearly that a rotary cam wheel operated by a tongue is designated by the expression "Schaltrad" in D1. Such a specific and concise cross-reference is, in the board's view, part of the disclosure of D1.

Furthermore, according to figure 1 and the passage bridging pages 11 and 12 of D1, the second actuator portion (24), comprising the transponder is shorter than the first actuator portion (22). This means that the mechanically coded tongue portion (22)



reproduction of figure 1 of D1

will be inserted first into the corresponding opening in head portion (4) of module (10) before the actuator portion (24), comprising the transponder, comes in close proximity of the proximity sensor (30). According to page 11, line 22 to page 12 line 11, due to the sensitivity characteristics of the proximity sensor in module (10), first a switching operation due to cooperation of mechanical tongue (22) and the rotary cam wheel is carried out, and then "upon further approach" ("bei weiterer Annäherung"), a switching operation due to the cooperation of the proximity sensor (30) and the transponder is carried out.

It follows that D1 discloses firstly inserting the coded tongue (22) to rotate the cam and secondly checking the code of RFID sensor (10, 24) when the tongue (22) is partly inserted.

According to page 4, lines 20 to 28, the proximity switch can be embodied as a transponder, which sends a response signal in response to an interrogation signal. In the board's view this is a disclosure of a coded

RFID sensor, which will be explained in further detail below.

- 3.4 At the beginning of the oral proceedings, the appellant changed their appeal case concerning the novelty objection based on D1 without presenting exceptional circumstances which have been justified with cogent reasons according to Article 13(2) RPBA 2020.

The respective objection of lack of novelty of the subject-matter of claim 7 in view of D1 had been raised by the respondent as early as in the notice of opposition, but more relevantly for the appeal proceedings, in their reply to the statement of grounds of appeal. Furthermore, the board had indicated specifically in their preliminary opinion that they found the objection persuasive. Nevertheless, the appellant did not comment on this objection until at the oral proceedings. When asked by the chairman, whether there were any special circumstances justifying this procedural behaviour, the appellant had no comment other than that the argument was very relevant.

The board is of the opinion in view of the facts of the case that it would have been appropriate for the appellant to react to this objection in a timely manner allowing the respondent and the board to properly prepare. For the same reason also an attempt to overcome the novelty objection based on D1 should have been made before, so that a further interruption of the oral proceedings for filing an amended request as requested by the proprietor was not justified.

Furthermore, the board does not share the appellant's opinion that the new submission should be taken into account because it was very relevant, as according to

Article 13(2) RPBA 2020, the relevance of a submission is not a decisive criterion for admitting it.

However, the respondent is also correct in pointing out that according to page 4 of D1, last paragraph the proximity switch could emit an electromagnetic signal, to which the transponder replied with a corresponding response signal, and that this response signal was to be considered a code. A coded key is merely a key that matches a lock. Neither claim 1 nor claim 7 contains anything that allowed the word "coded" in the context of the RFID sensor to be limited further than in the case of the mechanically coded interlock. This is also consistent with the opposed patent, column 3, lines 38 to 41, according to which "[t]he actuator 16 and antenna 18 are matched, that is have a unique code [...]". Given this context, the appellant has not explained why the transponder emitting a response signal was not a disclosure of a coded transponder, i.e. a transponder that matches the reader interrogating it in a manner analogous to the way the key matches the lock and the antenna according to the opposed patent matches the reader on the actuator. It is rather a very unlikely proposition to assume that an arbitrary non-matching transponder could provide an intelligible response signal in the case of the interlock of D1. This response signal is therefore equivalent to a "code" in the sense of the opposed patent. Claim 1 is not limited to a unique code or a code in the cryptographic sense.

3.5 Moreover, D1 discloses two independent interlocks. The appellant did not clearly explain why this was not the case. Clearly, document D1 discloses on page 5, lines 11 to 15 that the position of the interlock actuator is detected independently in two different ways, namely by

the mechanically coded actuator and the proximity switch. The appellant made reference to the alleged technical effect of "mechanical redundancy". The opposed patent contains a specific embodiment in column 6, lines 32 to 47, and shown in figure 3, in which the coded mechanical interlock and the electronic lock can be mounted separately. Clearly, however, claim 7 is not limited to this embodiment. The argument of the appellant therefore does not convince the board because it does not demonstrate why the claimed subject-matter is new.

3.6 The appellant made further reference to parts of the patent to which the claim under examination is clearly not limited, namely, dependent claims 8 and 9 of the main request, as well as the specific sequence of checks described in paragraphs [0022] to [0025]. Since the subject-matter under examination is that of claim 7, and not that of the description or the dependent claims, these arguments of the appellant do not persuade the board.

3.7 The board therefore concludes that the subject-matter of claim 7 of the main request is not new, so that the request is not allowable.

4. *First to Fourth Auxiliary Request - Novelty*

Each of the first to fourth auxiliary requests includes a claim with wording identical to that of claim 7 of the main request. It follows that none of the auxiliary requests is allowable for the same reasons as the main request.

5. *Request to Submit Further Claim Requests*

5.1 After the chairman informed the parties of the board's conclusions according to which none of the requests on file was allowable, the appellant requested an interruption of the oral proceedings to draft and file a further claim request in which claim 7 would be deleted.

5.2 The board informed the appellant that in their preliminary opinion, in view of the appellant's failure to react to the respondent's reply to the statement grounds of appeal or to the board's preliminary opinion, admittance of a further request, which had not even been prepared before the oral proceedings, was highly unlikely. Furthermore, the fact that the appellant had not even prepared such a request but now expected the respondent and the board to wait during the oral proceedings while they drafted a new request was in the board's view unreasonable behaviour, which bordered on abuse of procedure. Parties are clearly expected to prepare for oral proceedings, in particular when the board informed them expressly and specifically in advance of its preliminary opinion concerning the requests on file.

5.3 The chairman nonetheless then announced a brief interruption of the oral proceedings. However on resumption of the oral proceedings, no further request had been submitted.

6. *Conclusions*

Since none of the requests of the appellant meets the requirements of the Convention, the board accedes to the respondent's request.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



U. Bultmann

R. Lord

Decision electronically authenticated