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D E C I S I O N
of 17 May 2006

Case Number: T 1107/03 - 3.5.02

Application Number: 95927338.4

Publication Number: 0740843

IPC: H01H 9/02

Language of the proceedings: EN

Title of invention:

Manually actuatable integrated control module and method of making same

Patentee:

SQUARE D COMPANY

Opponent:

- 01: Moeller GmbH
02: ifm electronic gmbh
03: Pepperl + Fuchs GmbH
04: Siemens AG

Headword:

-

Relevant legal provisions:

EPC Art. 56, 120
EPC R. 78(2)

Keyword:

"Basis for calculation of time limits - reply to Grounds of appeal late filed - no"
"Admissibility of late-filed requests - yes"
"Inventive step - no (all requests)"

Decisions cited:

-

Catchword:-



Case Number: T 1107/03 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 17 May 2006

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
7 July 2003 concerning maintenance of European
patent No. 0740843 in amended form.

Composition of the Board:

Chairman: W. J. L. Wheeler
Members: M. Rognoni
E. Lachacinski

Summary of Facts and Submissions

- I. Opponents 03 and 04 filed appeals against the interlocutory decision of the opposition division concerning maintenance of European patent No. 0 740 843 in amended form.
- II. In the decision under appeal, the opposition division held that claim 1 according to the fifth auxiliary request then on file involved an inventive step within the meaning of Article 56 EPC having regard, *inter alia*, to the following document:

D22: WO-A-90/10558.

- III. In the statement of grounds of appeal, the appellant opponent 04 argued against the inventive step of the subject-matter of claim 1 of the patent as maintained by the opposition division. Its submissions were, *inter alia*, based on a combination of the teachings of D22 and of the following document which had been cited by opponent 04 in the opposition proceedings in a letter dated 23 April 2003:

D42: US-A-5 155 664.

- IV. The registry of the Board sent copies of the statements of grounds of appeal to the patent proprietor (respondent) by a registered letter dated 10 December 2003.
- V. On 20 April 2004, the respondent faxed its comments on the grounds of appeal.

- VI. In a communication summoning the parties to oral proceedings and dated 18 October 2005, the Board expressed its preliminary views on the relevance of D22 and D42.
- VII. With a letter dated 8 May 2006, received on 11 May 2006, the appellant opponent 03 informed the Board that they would not attend the oral proceedings before the Board.
- VIII. With a letter dated 10 May 2006, the patent proprietor (respondent) announced that they would not be able to attend the oral proceedings and filed two sets of claims by way of first and second auxiliary requests.
- IX. The oral proceedings, which were held as scheduled on 17 May 2006, were attended only by the appellant opponent 04.
- X. The appellant opponent 03 requested in writing that the respondent's written submissions dated 20 April 2004 be disregarded as late-filed, and that the decision under appeal be set aside and the patent be revoked.

The appellant opponent 04 requested that the auxiliary requests be declared inadmissible and that the decision under appeal be set aside and the patent be revoked.

The respondent requested in writing that the appeal be dismissed (main request) or that the patent be maintained in amended form in accordance with the first or second auxiliary request filed with a letter dated 10 May 2006.

XI. Claim 1 according to the respondent's main request reads as follows:

"A method of making a manual control panel assembly (10) wherein a contact module (150) is formed including a manually actuatable electrical contact (158) and an electrical communication terminal (170) in electrical communication with the contact (158) and wherein a manually operable operator interface device (262) is mounted on a control panel (246) and serves for manual operation of said electrical contact (158), electrical communication means (174) being connected to said communication terminal (170) for delivery of a [sic] an electrical signal to an output device (102) remote from said control panel (246), characterised by the steps of:

- preassembling said manually actuatable electrical contact (158) and an associated operator (224) in combination with an input access module comprising a logic circuit (162), a communication circuit (166) and said communication terminal (170) to form an integrated contact module (150);
- attaching said integrated contact module (150) to said operator interface device (262) so that said operator interface device (262) is in operative interface with said contact operator (224) and connecting said integrated contact module (150) to a common communications link (174) at the control panel (246) for communication with an output access module (110) spaced apart from said control panel (246) for controlling an associated output device (102) in response to manual operation of

said contact operator (224) by said operator interface device (262)."

Claim 1 according to the respondent's first auxiliary request differs from claim 1 according to the main request in that it further specifies the following:

"and wherein the step of mounting includes the step of.
[sic]

- mounting an operator interface device (262) on one side of said control panel; and
- attaching said integrated contact module (150) to said operator interface device (262) on an opposite side of said control panel such that they are in communication with each other."

Claim 1 according to the respondent's second auxiliary request differs from claim 1 according to the main request in that it is directed to a method of making a manual control panel assembly (10) "wherein a plurality of contact modules (150) are formed".

XII. The written submissions made by appellant opponent 03 may be summarized as follows:

Document D22 showed a manual key control device comprising a logic circuit for processing an electrical signal for an actuator device. The essential difference between D22 and the contested patent concerned their respective operator interface devices: D22 used a one-piece push-button, whereas the contested patent relied on a contact operator integrated in the contact module and combined with a push-button (operator interface device) arranged on the cover of the control panel

assembly. The method steps for assembling the different component parts of the key control device known from D22 and the manual control panel assembly according to the contested patent were essentially the same. In fact, the difference between D22 and the contested patent resided not in a method step but only in the fact that one structural element was replaced by a different structural element. In a method claim, however, the inventive step could only be supported by a combination of method steps and not by replacing a one-piece structural element (push-button) with one comprising two separate parts (contact operator and operator interface device) which in combination perform the same function.

Thus, the subject-matter of claim 1 of the main request did not involve an inventive step according to Article 56 EPC.

XIII. The arguments of the appellant opponent 04 may be summarised as follows:

Document D42 showed a manual control panel assembly comprising a plurality of push-buttons which could be operated from the front of the panel assembly. A push-button as shown in Figure 5 was mechanically linked to a corresponding contact block 20 so as to allow an operator to operate the switches located in the contact block. A push-button of the panel assembly known from D42, therefore, corresponded to the manually operable interface device specified in claim 1 according to the main request. In other words, a person skilled in the art could derive from D42 the typical structure of a manual control panel assembly comprising a purely

mechanically operating push-button on one side of the panel and a corresponding contact block which comprised the electrical components of the assembly and was located on the opposite side of the panel.

Document D22 related to a manual key control device comprising an electronic unit located within the device itself for processing information signals. The teaching of D22 in combination with the teaching of D42 relating to the structure and the corresponding manufacturing steps of a known manual panel assembly would have led the skilled person to a method according to claim 1 of the main request. Thus, the subject-matter of this claim did not involve an inventive step within the meaning of Article 56 EPC

The claims of the first and second auxiliary requests were late-filed and thus should not be admitted into the appeal proceedings.

In the oral proceedings the representative of the appellant opponent 04 questioned the novelty of the subject-matter of claim 1 of the main request on the basis of an interpretation of D42 (see Figures 1 and 2) which identified a preassembled arrangement of the circuit board assembly 14, scanner module 22 and contact blocks 20 with the integrated contact block specified in the contested patent.

XIV. Opponents 01 and 02 did not make any submissions.

XV. The respondent argued in writing essentially as follows:

D22 did not disclose the steps of making a manual control panel assembly recited in the preamble of claim 1 of the contested patent, and, in particular, did not teach the step of preassembling a manually actuatable electrical contact and associated operator in combination with an input access module which comprised a logic circuit, communication circuit and a communication terminal. Therefore, D22 did not provide a solution to the problem of allowing the flexible combination of having one standard module below the panel with several different kinds of operator interface device above the panel in any desired combination.

D42 disclosed a control panel unit comprising a plurality of knobs attached to a plurality of contact blocks. This was designed to be assembled with a plurality of contact blocks behind the panel and a plurality of switches already attached to a panel plugged thereon. However, the contact blocks were simple contact blocks only and there was nothing in D42 that compared with the preassembled integrated contact module of the present invention, *ie* with a contact block comprising a logic circuit, communication circuit and communication terminal. As the method according to claim 1 of the main request did not result from a combination of the teachings of D22 and D42, the subject-matter of this claim involved an inventive step (Article 56 EPC).

Claims 1 according to the first and second auxiliary requests were meant to clarify some essential

differences between the method of the invention and the teaching of D22.

Reasons for the Decision

1. The appeal is admissible.

Admissibility of the respondent's submissions dated 20 April 2004

- 2.1 According to the appellant opponent 03 the submissions faxed by the respondent on 20 April 2004 in reply to the Registry's communication dated 10 December 2003 had to be rejected as late-filed, if it appeared from the advice of delivery that such a communication had reached the respondent before the 20 December 2004.
- 2.2 According to Article 120 EPC the Implementing Regulations shall specify the manner of computation of time limits. Rule 78(2) EPC of the Implementing Regulations to the EPC provides the legal basis for the computation of a time limit which starts with a notification effected by registered letter, whether or not with advice of delivery. According to Rule 78(2) (second sentence) EPC, a notification is deemed to be delivered to the addressee on the tenth day following its posting, unless the letter has failed to reach the addressee or has reached him at a later day.
- 2.3 In the present case, a communication accompanying copies of the statements of grounds of appeal of the appellant opponents 03 and 04 and setting a time limit of four months for a reply was sent by the Registry of

the Board to the respondent by registered letter dated 10 December 2003. This was in accordance with Article 10a(1)(b) RPBA. The respondent's reply was received on 20 April 2004 and thus within the prescribed time limit calculated in accordance with Rule 78(2) EPC.

Respondent's main request

3.1 Claim 1 according to the respondent's main request relates to "*a method of making a manual control panel assembly*" which comprises a contact module 150, a control panel 246, a manually operable operator interface device 262 (eg a push-button) and an electrical communication means (ie a common communications link) 174.

The contact module 150 recited in claim 1 comprises a manually actuatable electrical contact 158 and associated contact operator 224, an electrical communication terminal 170 (eg contact pins) in electrical communication with the contact 158 and an input access module.

The input access module includes a logic circuit 162, a communication circuit 166 and the electrical communication terminal 170.

The manually operable operator interface device 262 is mounted on the control panel 246 and serves for manual operation of the electrical contact 158 via the associated contact operator 224.

The electrical communication means 174 is connected to the communication terminal 170 for delivery of an

electrical signal to an associated output device 102 remote from said control panel 246 for controlling said output device 102 in response to manual operation of the contact operator 224 by said operator interface device 262.

3.2 The claimed method comprises the following steps:

- preassembling the manually actuatable electrical contact 158 and the associated contact operator 224 in combination with the input access module to form an integrated contact module 150;
- attaching said integrated contact module 150 to said operator interface device 262 so that the operator interface device 262 is in operative interface with the contact operator 224;
- connecting the integrated contact module 150 to the common communications link 174 at the control panel 246 for communication with the output access module 110.

3.3 In other words, the gist of the claimed method consists essentially in forming an integrated contact module including a logic circuit, attaching the preassembled integrated contact module to the operator interface device (eg a pushbutton) mounted on the control panel of the control panel assembly, and connecting the communication terminal of the integrated contact module to a common communications link (eg a bus).

4.1 D42 (Figure 2) shows a manual control panel assembly comprising the following features recited in claim 1 of the patent in suit:

- a manually operable operator interface device 32 mounted on a control panel 12;
- a contact module 20 including manually actuatable electrical contacts (see Figure 6), an electrical communication terminal 70, 71 and 72 in electrical communication with the contacts and an associated contact operator 74, 75 (see Figure 4 and column 3, lines 9 to 17) and electrical communication means (sockets 18, circuit board 14 and serial I/O scanner module 22) for delivery of an electrical signal to an output device (programmable logic controller 62) remote from the control panel 12 for controlling said output device in response to manual operation of the contact operator 74, 75 by said operator interface device 32 (see Figure 3).

4.2 In the oral proceedings before the Board, the representative of the appellant opponent 04 argued that the circuit board assembly containing the mounting sockets 18, the contact modules 20 and the serial I/O scanner module 22 in fact corresponded to a contact module as specified in claim 1 of the respondent's main request.

4.3 However, in the judgement of the Board, the contact module recited in claim 1 of the patent in suit corresponds to one of the contact modules 20 shown in D42 and differs therefrom in that it includes an input access module comprising a logic circuit.

4.4 As can be inferred from Figure 2 and the description (see column 2, line 43 to column 3, line 2), D42 further implies a method of making the known manual

control panel assembly which comprises the following steps recited in claim 1:

- preassembling the manually actuatable electrical contact and the associated operator 74 and 75 in combination with an input access module comprising the communication terminal 70, 71 and 72 to form an integrated contact module;
- attaching said integrated contact module to said operator interface device 32 so that said operator interface device is in operative interface with the contact operator 74, 75; and
- connecting said integrated contact module to the common communications link for communication with an output access module 62.

4.5 Hence, the method according to claim 1 of the respondent's main request differs from the method of manufacturing the manual control panel assembly shown in document D42 in that the step of preassembling the integrated contact module involves an input access module comprising, *inter alia*, a logic circuit.

Compared to a method of making control panels employing conventional contact blocks and input and output access modules, the claimed method has the advantage of reducing the wiring and thus simplifying the manufacture of a manual control panel assembly (see published patent, column 3, lines 25 to 33).

5.1 D22 relates to, *inter alia*, to "a manual key control device" with "a specific electronic processing unit for processing" an electrical signal for an actuator device (see page 2, second paragraph). In particular, the

control device according to D22 is formed as an integrated module which comprises a manually actuatable electrical contact 317, an electrical communication terminal 333, an associated operator 312, and an input access module including a logic circuit 27, a communication circuit 305 and the electrical communication terminal 333. The electronic processing unit can be an integrated circuit 25 mounted on a printed circuit board 305 and including specific logic circuits or a microprocessor (D22 see page 7, lines 15 to 23). Thanks *"to the electronic unit 27 which allows the information signals relating to the operation of the keys 310 to be processed ...the assembly and reliability of the control system is considerably simplified by the significant reduction in the number of connection wires as well as the associated connections"* (D22, page 7, line 25 to page 8, line 7). On the other hand, the addition of this electronic unit involves only a simple modification to the conventional frame without substantially altering the critical dimensions of the device (D22, page 8, line 20 to page 9, line 4).

- 5.2 In the judgement of the Board, it would be obvious to a person skilled in the art to apply the general teaching of D22 regarding the formation of a contact module comprising a logic circuit to the manufacture of a manual control panel assembly according to D42, which also involves the connection of switches with actuators via a separate logic controller (see D42, Figures 2 and 3). In particular, in the light of the disclosure in D22, the skilled person would realise that the manual control panel assembly known from D42 could be further developed by providing the contact blocks with logic

circuits which could take over at least some of the functions performed by the separate programmable logic controller 62 and the input/output scanning circuit 22.

Once the person skilled in the art realised that a logic circuit could be advantageously integrated into a preassembled contact module of a control panel assembly as shown in document D42 without the need of substantially modifying the steps required for making the known manual control panel assembly, such a skilled person would arrive at the claimed method without exercising any inventive activity.

- 5.3 As the subject-matter of the claim 1 according to the main request results from a straightforward application of the general teaching of D22 relating to an integrated contact module comprising a logic unit to the method of making the manual control panel assembly known from D42, it does not involve an inventive step within the meaning of Article 56 EPC.

Respondent's first and second auxiliary requests

- 6.1 The appellant opponent 04 argued against the admissibility of the respondent's first and second auxiliary requests, as they had been filed only a few days before the date of the oral proceedings.
- 6.2 The Board acknowledges that these requests were indeed filed at a very late stage in the appeal proceedings. Exceptionally, however, the Board has decided to admit them into the proceedings because their differences with respect to the main request are such that their assessment could not have put undue burden on the

appellant opponent 04 or on the Board, so that their admission did not cause any procedural delay.

7.1 Claim 1 according to the first auxiliary request differs from claim 1 according to the main request in that it further specifies the following steps:

- mounting an operator interface device on one side of said control panel; and
- attaching said integrated contact module to said operator interface device on an opposite side of said control panel such that they are in communication with each other.

7.2 As can be inferred from Figure 2 of D42, the method employed for assembling the known manual control panel assembly involves the step of mounting an operator interface device 32 on one side of the control panel 12 and attaching the integrated contact module 22 to the operator interface device on the opposite side of the control panel so that they are in communication with each other. The means for attaching the integrated contact module to the operator interface device and for effecting the communication between the two are shown in Figures 2, 4 and 5.

7.3 Claim 1 according to the second auxiliary request differs from claim 1 according to the main request in that it relates to a method of making a manual control panel assembly comprising a plurality of contact modules. This kind of manual control panel assembly is however known from document D42.

7.4 In summary, the amendments to claim 1 of the main request proposed by the respondent by way of first and second auxiliary requests involve features or steps known from D42. For the same reasons given above the subject-matter of these requests derives from an obvious application of the teaching of D22 to the method known from document D42.

8. As none of the respondent's requests satisfies the requirements of Article 56 EPC, the patent cannot be maintained in amended form.

Order

For the above reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

U. Bultmann

W. J. L. Wheeler