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Datasheet for the decision of 5 October 2022

Case Number: T 0440/18 - 3.4.01

Application Number: 12190767.9

Publication Number: 2728972

IPC: H05B37/02, H05B33/08

Language of the proceedings: EN

Title of invention:
Controlling operation of light sources

Patent Proprietor:
Helvar Oy Ab

Opponent:
Tridonic GmbH & Co KG

Headword:
Light source control /HELVAR

Relevant legal provisions:
EPC Art. 56, 100(b)

Keyword:
Grounds for opposition - insufficiency of disclosure (main request)
Inventive step - auxiliary request (yes)

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Case Number: T 0440/18 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 5 October 2022

Appellant: (Opponent)	Tridonic GmbH & Co KG Färbergasse 15 6851 Dornbirn (AT)
Representative:	Rupp, Christian Mitscherlich PartmbB Patent- und Rechtsanwälte Sonnenstraße 33 80331 München (DE)
Respondent: (Patent Proprietor)	Helvar Oy Ab Keilaranta 5 02150 Espoo (FI)
Representative:	Papula Oy P.O. Box 981 00101 Helsinki (FI)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 12 December 2017 concerning maintenance of the European Patent No. 2728972 in amended form.**

Composition of the Board:

Chairman	R. Winkelhofer
Members:	B. Noll
	A. Medeiros Gaspar
	A. Wahrenberg
	D. Rogers

Summary of Facts and Submissions

I. The opposition against the European patent was based on Articles 100(a), (b) and (c) EPC.

II. The Opposition Division decided that the patent in amended form according to a fourth auxiliary request met the requirements of the EPC.

III. The opponent appealed this decision, essentially arguing that the invention was not clearly and sufficiently disclosed so that it could be carried out by a person skilled in the art (Article 100(b) EPC), and that the subject-matter of claim 1 lacked an inventive step (Article 56 EPC) having regard to

D2: WO 2011/107280 A2.

IV. In the communication accompanying the summons for oral proceedings, the Board gave a preliminary view on the case. The Board considered that the invention defined in claim 1 as maintained by the Opposition Division was not disclosed in a sufficiently clear and complete manner so as to comply with Article 100(b)/83 EPC. Further, the Board indicated that claim 1 did not involve an inventive step over D2.

V. In a response to the Board's communication, the proprietor submitted, two months ahead of the oral proceedings, an amended set of claims as an auxiliary

request, labelled "1st auxiliary request", and two dictionary extracts.

VI. The opponent requests that the decision under appeal be set aside and amended such that the patent be revoked. Additionally, the opponent requests that the 1st auxiliary request not be admitted into the appeal proceedings.

VII. The proprietor requests that the appeal be dismissed (main request), or that the patent be maintained on the basis of the 1st auxiliary request.

VIII. Claim 1 of the main request reads (reference signs omitted):

An apparatus for controlling operation of a first light source of a first color and a second light source of a second color, the apparatus comprising

an input portion configured to receive an input control signal having a user-controllable duration,

characterized in that the apparatus comprises a control portion configured to

switch, in response to a single input control signal having the overall duration not exceeding a first predetermined threshold, the first and second light sources on or off, and

change characteristics of light provided by the first and second light sources in response to the duration of the input control signal exceeding a second predetermined threshold that is no smaller than the first predetermined threshold, the change in characteristics being dependent on duration of the input control signal and the change comprising adjustment of the ratio between the light intensities of the first light source and the second light source, and the change further comprising adjustment of the combined light intensity of the first light source and the second light source such that the ratio between the light intensity of the first light source and the second light source remains essentially constant.

IX. Claim 1 of the ("1st") auxiliary request adds:

wherein said adjustment of the combined light intensity occurs first in response to said input control signal when the duration of the input control signal exceeds said second predetermined threshold, so that the control portion is configured to continue the adjustment of combined light intensity until termination of the input control signal or until reaching a maximum or a minimum combined light intensity of the first and the second light sources and perform the adjustment of the ratio between the light intensities thereafter.

X. The parties' submissions, insofar as they are relevant to the decision, are discussed in detail in the reasons below.

Reasons for the Decision

1. The patent concerns the control of a lighting device comprising two light sources such as LEDs. The patent aims to provide a simple and versatile control of the lighting device so as to adjust both brightness and colour temperature in response to a single input control signal (description, [0004] and [0007]).

Main request, insufficiency of disclosure

2. Claim 1 defines that the controlled change of characteristics of light comprises an adjustment of the ratio between the light intensities of two light sources, and an adjustment of the combined light intensity of the two light sources. In simpler terms, this control is an adjustment of colour temperature and brightness.

3. The proprietor argued that claim 1 simply required the apparatus to be able to change both the brightness and the colour temperature within a single control cycle. The patent specification disclosed various examples of such an apparatus. It was, therefore, disclosed in a manner sufficiently clear and complete to be implemented by the skilled person in accordance with the requirements of Article 100(b) EPC.

4. Contrary to the proprietor's arguments, though, an adjustment of brightness and colour temperature is not synonymous with simply a change of these variables. While it is clear that an adjustment of these variables includes that they are changed, an adjustment defines more than that. It defines that the change is directed towards achieving a certain objective. This even follows from the explanation of the term "adjust" in the dictionary extracts submitted by the proprietor as "*to alter sth by a small amount so that it will fit properly or be right for use*" (see Oxford Advanced Learner's Dictionary of Contemporary English, Fifth edition) or "*to change something slightly, especially to make it more correct, effective or suitable*" (Cambridge Advanced Learner's Dictionary, edition unknown). According to these definitions, an adjustment is not to be equated with merely changing a variable.

5. Claim 1 therefore does not merely define an apparatus in which brightness and colour temperature can be arbitrarily changed within a single control cycle. Rather, the claim defines an apparatus that allows any kind of adjustment of both brightness and colour temperature, including an apparatus where both brightness and colour temperature can be adjusted within a single control cycle to settings provided by the user.

6. However, an apparatus capable of doing so is not disclosed in the patent. The patent only discloses examples in which a combination of brightness and colour temperature can be adjusted within a single control cycle to a restricted extent, namely such that adjusting one of brightness or colour temperature to a setting desired by the user limits the extent of

adjustment of the other (see Figures 4a and 4b which shows the relationship between the input control signal and the change in the combined light intensity and the colour temperature; the colour temperature is changed only after the combined light intensity has reached a minimum or maximum level).

7. The patent therefore does not provide the skilled person with sufficient information for carrying out the invention in claim 1 over the whole scope of the claim.

8. Therefore, the ground for opposition pursuant to Article 100(b) EPC prejudices the maintenance of the patent on the basis of the main request.

Auxiliary request, admission and consideration

9. The auxiliary request was submitted after the summons to oral proceedings by the Board. Its admission is subject to the Board's discretion.

10. The Board considers the auxiliary request to be a reaction to the Board's communication, which raised slightly different arguments on the issue of lack of sufficiency of disclosure than what had previously been discussed.

11. Although the auxiliary request could have been submitted earlier than two months before the oral proceedings, the Board considers that the timing is not a critical issue for admission in this case. No new issues were introduced by the auxiliary request, so that there was enough time for the Board and the opponent to prepare the case for oral proceedings.

12. Moreover, claim 1 of this request is based on claim 6 of the granted patent, against which the opponent had an opportunity to present their case in the notice of opposition.

13. The amendments can furthermore be seen to prima facie address, and overcome, the issues identified in the main request by further specifying the adjustments defined in the claim.

14. All things considered, there are exceptional circumstances and cogent reasons which justify the submission of an amended set of claims after the summons to oral proceedings. Pursuant to Article 13(2) RPBA 2020, the auxiliary request is therefore to be taken into consideration.

Auxiliary request, sufficiency of disclosure

15. The added features further define the adjustments that the device is configured to carry out, more precisely: the time sequence of the adjustments to the brightness and to the colour temperature are specified, as is the transition point from a change of the brightness to a change of the colour temperature.

16. Due to these features, the apparatus is defined as being able to adjust brightness and colour temperature only to a limited extent. The user can adjust, within a control cycle, either the brightness by terminating the control signal before the transition point is reached, or the colour temperature by terminating the control signal after the transition point is exceeded.

17. An apparatus capable of performing such an adaptation is disclosed, for example, in Figure 4a of the patent specification.

18. The opponent argued that the apparatus in claim 1 of the first auxiliary request was still defined as able to adjust both brightness and colour temperature to a user-desired setting within one control cycle. Therefore, the apparatus was insufficiently disclosed for the same reasons as for the main request. The added features did not further define the term "adjustment", but rather introduced the possibility that only the combined light intensity was adjusted (the first alternative before the "or" in claim 1). This was even incompatible with the prior definition that both were adjusted.

19. The Board does not agree. For a device to be operable to either adjust the brightness to a user defined level, or the brightness to a system defined level and then the colour temperature to a user defined level, depending on the length of the command, it needs to be configured to carry out both adjustments. Therefore, rather than being incompatible with the features added to the claim, the definition of the device as configured to adjust both quantities is seen as necessary for the system to be operated as defined.

Thus, claim 1 of the first auxiliary request defines an adjustment of both brightness and colour temperature such as disclosed in Figure 4a of the patent.

20. In conclusion, the apparatus defined in claim 1 of the auxiliary request is disclosed in the patent in a manner sufficiently clear and complete for it to be carried out by the skilled person.

Auxiliary request, inventive step

21. D2 discloses a controllable device for operating LED light sources. The device (fig. 1) includes a push button (Taster, Tst.) as an input portion for entering a control input signal. The device is configured to receive the signal from the push button at a port K and to evaluate the duration of pressing the push button.

22. Accordingly, a short operation of the push button is recognised as a command for switching the light on or off. The skilled person would have understood that "short" in this context means that the duration is less than some predetermined time. The device is further configured to detect the time when the push button is operated "longer" and to evaluate the time as a setting for brightness, colour or colour temperature (D2, page 11, lines 11 to 20). The skilled person would have understood "longer" as meaning that the duration is longer than the predetermined time.

23. D2 does not explicitly describe that the device is for operating a first light source of a first colour and a second light source of a second colour. However, the skilled person would have implicitly inferred from the indication that the device is for controlling LED light sources to adjust the luminance or colour temperature that at least two light sources of different colour temperatures are present. The skilled person would have understood further that the light sources may be controlled such that the colour temperature of the emitted light can be adjusted by the duration of actuation of the push button.

24. The skilled reader would further have inferred that the disclosed adjustment of the total light intensity implied controlling the partial intensities of the light sources such that they stay in a constant relation to each other, and that the disclosed adjustment of the colour temperature implied changing the ratio of the intensities of different colours.

25. Thus, the apparatus of claim 1 differs from the device disclosed in D2 in that, in response to a single input control signal, both the ratio between the light intensities of the light sources and the combined light intensity of the light sources are adjusted, wherein the adjustment of the combined light intensity occurs first and the control portion is configured to continue the adjustment of combined light intensity until termination of the input control signal or until reaching a maximum or a minimum combined light intensity, and the adjustment of the ratio between the light intensities thereafter.

26. Even though D2 discloses that, in addition to brightness, "also" colour temperature can be adjusted, D2 fails to describe a concrete implementation of adjusting both brightness or colour temperature. Thus, the effect of the distinguishing features resides in providing an implementation of a control for adjusting both brightness and colour temperature.

27. The problem to be solved is to provide an implementation for controlling both brightness and colour temperature of the lighting device.

28. The opponent argued that D2 disclosed all the elements of adjusting brightness or colour temperature of a light source. Therefore, no technical problem was

apparently solved by the claimed apparatus.

29. The Board does not agree. Providing a concrete implementation when starting from a general teaching in the prior art is a technical problem.

30. Starting from D2, it would not have been obvious to consider a solution employing a single control signal sequentially adjusting brightness and colour temperature, by first adjusting the brightness and, if the user would not have terminated the control cycle at a desired level of the brightness, continue with adjusting the colour temperature.

31. There is also no other prior art that would render the particular implementation in claim 1 of the first auxiliary request obvious.

32. For these reasons, the apparatus of claim 1 of the first auxiliary request involves an inventive step having regard to D2.

Order

For these reasons it is decided that:

1.The decision under appeal is set aside.

2.The case is remitted to the Opposition Division with the order to maintain the patent on the basis of the 1st auxiliary request as submitted on 5 August 2022, and the description to be adapted.

The Registrar: The Chair:

D. Meyfarth R. Winkelhofer

Decision electronically authenticated