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**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: ILLUMINATOR FOR AN IMAGE ACQUISITION SYSTEM

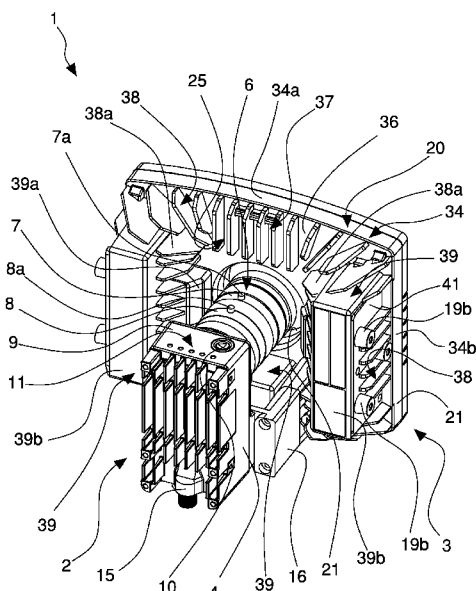


Fig. 2

(57) Abstract: An illuminator (3) for an image acquisition system (1), which comprises an optical apparatus (2) for acquiring images with which this illuminator (3) is associable. The optical apparatus (2) is provided with optical means (6) and the illuminator (3) comprises: a body (20) provided with an opening (21), for receiving the optical means (6); illuminating means (23) arranged around the opening (21) in a frontal face (22) of this body (20) and commandable by the optical apparatus (2) to illuminate a space in front of the frontal face (22), electronic control means of the illuminator (3); heat dissipating means (38, 38a); connecting means (40) for removably fixing said illuminator (3) at least to the optical apparatus (2). The body (20) of the illuminator comprises a rear face (25) opposite the frontal face (22) which comprises a plurality of distinct functional case elements positioned around the opening (21) for receiving at least said electronic control means and/or which defines said heat dissipating means (38, 38a) and/or said connecting means (40), in such a manner as to enable an operator, when said optical apparatus (2) is associated with said illuminator (3), to access said optical means (6) to dismantle said optical means (6) from said apparatus (2) and/or adjust optical adjusting means (7, 8) of said optical means (6).



- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) — before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

**Published:**

- with international search report (Art. 21(3))

**(88) Date of publication of the international search report:**

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2012/056571

## A. CLASSIFICATION OF SUBJECT MATTER

INV. G03B15/03 G06K7/10  
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G03B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 837 985 A (KARPEN THOMAS W [US]) 17 November 1998 (1998-11-17) illuminator for an image acquisition device for reading id bar codes; column 3, line 58 - column 9, line 43; figures 1-11	1-24
A	----- WO 2009/135298 A1 (PSION TEKLOGIX INC [CA]; VAN KERKHOVEN DON [CA]; DEGUIRE PIERRE [CA];) 12 November 2009 (2009-11-12) illuminator for an image acquisition device; paragraph [0010] - paragraph [0068]; figures 1-16 ----- -/--	1-24



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 October 2013

Date of mailing of the international search report

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2012/056571

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 123 263 A (FENG CHEN [US]) 26 September 2000 (2000-09-26) illuminator for an image acquisition device for reading id bar codes; column 5, line 66 - column 25, line 35; figures 1-32 -----	1-24
A	US 2011/068174 A1 (MIYOSHI AKIHIRO [JP] ET AL) 24 March 2011 (2011-03-24) illuminator for an image acquisition device for reading id bar codes; paragraph [0047] - paragraph [0083]; figures 1-25 -----	1-24
A	US 2005/231948 A1 (POHLERT RUDY G [US] ET AL) 20 October 2005 (2005-10-20) illuminator for an image acquisition device; paragraph [0090] - paragraph [0228]; figures 1-66 -----	1-24

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2012/056571

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-24

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-24

Illuminator comprising a body having connecting means and adjusting means for dismantle and /or adjust optical means, and corresponding image acquisition system

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2. claims: 25-39

Illuminator comprising indicating mean and communication means for supplying indications to an operator, and corresponding image acquisition system

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2012/056571

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5837985	A	17-11-1998	NONE
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			EP 2274710 A1 19-01-2011
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			WO 2006113745 A2 26-10-2006
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