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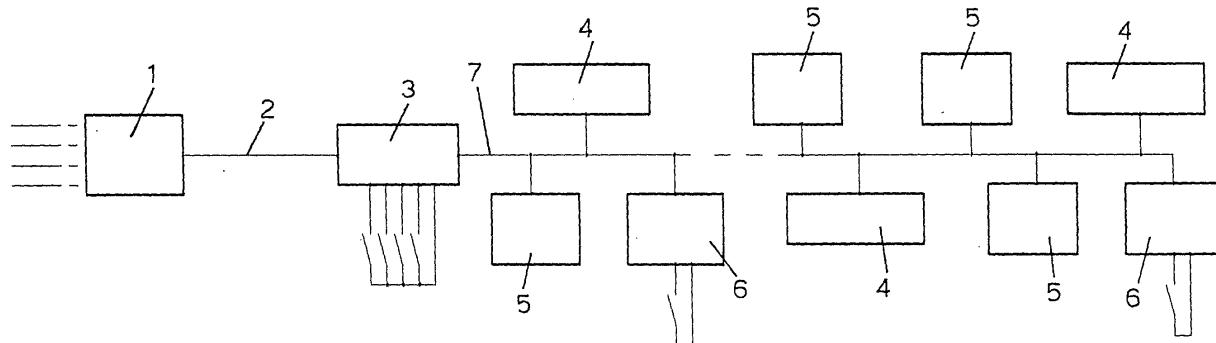
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(54) Integrated system for the diagnosis and controlling of fluorescent lamps

(57) An integrated system for the diagnosis and handling of fluorescent lamps (4, 5), comprising a series of lighting devices (4) which share the same physical communication element or bus (7) with emergency lighting devices (5) and are driven by a single control and/or supervision board (3), in order to facilitate the installation and maintenance operations of the system; the system can also handle different configurations, indifferently with

or without simple lighting lamps, such as a group of single lamps, totally autonomous, suitable for forming a plant in compliance with safety regulations, the same group of lamps which can be activated by a centralized remote control system, that allows and facilitates various maintenance operations, and/or the same group of lamps, connected to a central board which handles light and test running and maintenance data.

Fig.1





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
P, X	EP 1 513 376 A (CEAG NOTLICHTSYSTEME GMBH) 9 March 2005 (2005-03-09) * paragraphs [0037] - [0043]; figures 1,2 * -----	1,2	INV. H05B37/02 H05B37/03 H02J9/06
X	WO 03/094579 A (ENVIRONMENTAL MANAGEMENT LIMITED; RYAN, NOEL, DECLAN; TAPP, BRIAN, WIL) 13 November 2003 (2003-11-13) * page 7, line 23 - page 16, line 19; figures 1,2,4-6 *	1,2	
X	DE 195 46 831 A1 (JANKE, PETER, DIPL.-INFORM., 78462 KONSTANZ, DE) 5 June 1996 (1996-06-05) * the whole document *	1,2	
X	EP 0 490 329 A (TRIDONIC BAUELEMENTE GMBH) 17 June 1992 (1992-06-17) * column 5, line 46 - column 6, line 28; figure 1 * * column 13, lines 40-57 *	1,2	
X	LUGER S ET AL: "BELEUCHTUNG WIRD BUSFAEHIG" ELEKTRONIK, WEKA FACHZEITSCHRIFTENVERLAG, POING, DE, vol. 41, no. 26, 22 December 1992 (1992-12-22), pages 26-30, XP000327405 ISSN: 0013-5658 * the whole document *	1,2	TECHNICAL FIELDS SEARCHED (IPC)
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4 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		29 June 2006	Ferla, Monica
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1,2



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1,2

An integrated system for the diagnosis of fluorescent lamps comprising both normal lighting devices and emergency lighting devices connected to a single bus and driven by a single control and/or supervision board (claim 1). The control and/or supervision board is coupled to a communication interface by means of a serial line.

2. claim: 3

The integrated system of claim 1 wherein the control and/or supervision board comprises a microprocessor and a internal rechargeable battery in order to operate the bus also in the absence of the mains supply.

3. claims: 4-8

The integrated system of claim 1 wherein each lighting device comprises a digital ballast operating in current feedback control mode, using digital logarithmic PWM dimming and carrying out fucntional tests of the lamps.

4. claim: 9

The integrated system of claim 1 wherein a protocol suitable for being combined with the DALI protocol is used and a bus conflict access procedure is carried out.

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 05 07 5641

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

29-06-2006

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