

Title (en)

DETECTING AND COMPENSATING FOR LED FAILURES IN LONG LED CHAINS

Title (de)

ERKENNEN UND KOMPENSIEREN VON LED AUSFÄLLEN IN LANGEN LED-KETTEN

Title (fr)

DÉTECTION ET COMPENSATION DE DÉFAILLANCES DE DEL DANS DE LONGUES CHAÎNES DE DEL

Publication

EP 2191694 A2 20100602 (DE)

Application

EP 08803688 A 20080904

Priority

- EP 2008061718 W 20080904
- DE 102007042561 A 20070907

Abstract (en)

[origin: WO2009034014A2] The invention relates to a circuit arrangement, comprising a series connection of LEDs (LED chain), wherein the LEDs (L1 - L6) are supplied by a controlled power source (14). The object of the invention is, by additionally wiring the LED chain, to obtain a control engineering method, with which the failure of an LED or of a plurality of LEDs (L1 - L6) can be detected and compensated for, thus ensuring the continued light emission using the operational LEDs. According to the invention, further switching elements (S1 - S6) are provided, particularly in parallel to the LED or parallel to a group of LEDs. Said switching elements (S1 - S6) are controlled via a switch control unit (6) originating from an error detection unit (4) and enable continued power flow through the chain by bypassing the defective LEDs, thus preventing the failure of the entire chain.

IPC 8 full level

H05B 44/00 (2022.01)

CPC (source: EP US)

H05B 45/48 (2020.01 - EP US); **H05B 45/54** (2020.01 - EP US)

Citation (search report)

See references of WO 2009034014A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

DE 102007042561 A1 20090312; EP 2191694 A2 20100602; WO 2009034014 A2 20090319; WO 2009034014 A3 20090528

DOCDB simple family (application)

DE 102007042561 A 20070907; EP 08803688 A 20080904; EP 2008061718 W 20080904