

Title (en)

LED-TYPE LUMINOUS SIGNALING DEVICE AND RELATIVE CONTROL METHOD

Title (de)

LED-LEUCHTSIGNALVORRICHTUNG UND ZUGEHÖRIGES STEUERVERFAHREN

Title (fr)

DISPOSITIF LUMINEUX DE SIGNALISATION DU TYPE À DELS ET MÉTHODE DE COMMANDE ASSOCIÉE

Publication

EP 2488401 B2 20170712 (EN)

Application

EP 10798582 A 20101015

Priority

- IT UD20090184 A 20091016
- IB 2010002625 W 20101015

Abstract (en)

[origin: WO2011045663A1] LED-type luminous signaling device comprising one or more LED-type luminous emission sources (16) and at least a light-directing lens (14) able to diffuse the luminous radiation emitted by a corresponding LED-type luminous emission source (16) in at least one signaling direction. The light-directing lens (14) is conformed so as to define at least an interception portion (18) suitable to divert a predefined fraction of total luminous radiation emitted by each LED-type luminous emission source (16) in one or more control directions, different from the signaling direction, wherein the signaling device comprises optical detection means (17) disposed coherently with the control direction so as to detect said predefined fraction of luminous radiation diverted by the interception portion (18).

IPC 8 full level

B61L 5/18 (2006.01)

CPC (source: EP)

B61L 5/1845 (2013.01); **B61L 5/1881** (2013.01); **B61L 2207/02** (2013.01)

Citation (opposition)

Opponent :

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- EP 1988752 A1 20081105 - MATSUSHITA ELECTRIC WORKS LTD [JP]
- US 7294816 B2 20071113 - NG FOOK CHUIN [MY], et al
- US 7569807 B2 20090804 - MATHESON GEORGE E [CA]
- DE 19744209 A1 19990401 - SIEMENS AG [DE]
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- US 7165896 B2 20070123 - HAUFFE RALF [DE], et al
- EP 1156271 B1 20080730 - SAGEM COMM [FR]
- US 6614358 B1 20030902 - HUTCHISON MIKE [US], et al
- WO 2006054234 A2 20060526 - KONINKL PHILIPS ELECTRONICS NV [NL], et al
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- US 6741351 B2 20040525 - MARSHALL THOMAS M [US], et al
- EP 1959715 A1 20080820 - SIGNAL HOUSE LTD [GB]
- WO 9849872 A1 19981105 - SIGNAL HOUSE LIMITED [GB], et al
- WO 2006067267 A1 20060629 - SABIK AB OY [FI], et al
- US 4182977 A 19800108 - STRICKLIN ROBERT S JR [US]
- EP 1722608 A2 20061115 - SIEMENS AG [DE]
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EP3480078A1; GB2566213A; AU2016412473B2; GB2566213B; US11161532B2; WO2018004513A1; EP3480078B1

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