Title (en)

SYMBOL INDICATOR

Title (de

SYMBOLANZEIGER

Title (fr)

INDICATEUR DE SYMBOLE

Publication

EP 2539878 B1 20141217 (DE)

Application

EP 11706508 A 20110221

Priority

- DE 102010009432 A 20100224
- EP 2011052521 W 20110221

Abstract (en

[origin: WO2011104206A1] The invention relates to a symbol indicator, in particular for rail-bound traffic routes, comprising LED modules (1) for the pixelated far and near field representation of the symbol, and optical elements which are associated with the LED modules (1) which are arranged on a front plate (3). The aim of the invention is to produce different symbols using only a few optical and mechanical elements and to effectively protect against incident extraneous light on said indicator, such that the LED modules (1) respectively comprise an LED (2) and that the optical elements are embodied as collimator lenses (4) having a first spherical surface for the far field representation of the indicator and a second spherical surface for the near field representation of the indicator. The entire surface of the front plate (3) is provided with collimator lenses (4) and symbol-specific required pixels are produced by the LED modules (1).

IPC 8 full level

G09F 9/33 (2006.01); G09F 13/22 (2006.01)

CPC (source: EP)

G09F 9/33 (2013.01); G09F 13/22 (2013.01)

Designated contracting state (EPC)

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

DOCDB simple family (publication

**DE 102010009432 A1 20110825**; CN 102770896 A 20121107; CN 102770896 B 20151125; EP 2539878 A1 20130102; EP 2539878 B1 20141217; ES 2528444 T3 20150210; WO 2011104206 A1 20110901

DOCDB simple family (application)

**DE 102010009432 A 20100224**; CN 201180011057 A 20110221; EP 11706508 A 20110221; EP 2011052521 W 20110221; ES 11706508 T 20110221