

Title (en)

SOLAR SENSOR FOR THE DETECTION OF THE DIRECTION OF INCIDENCE AND THE INTENSITY OF SOLAR RADIATION

Title (de)

SONNENSENSOR ZUR ERFASSUNG DER EINFALLSRICHTUNG UND DER INTENSITÄT VON SONNENSTRAHLUNG

Title (fr)

CAPTEUR SOLAIRE DESTINÉ À LA SAISIE DE LA DIRECTION D'INCIDENCE ET DE L'INTENSITÉ DE RAYONS SOLAIRES

Publication

EP 2181313 A2 20100505 (DE)

Application

EP 08803319 A 20080828

Priority

- EP 2008061293 W 20080828
- DE 102007041002 A 20070829

Abstract (en)

[origin: WO2009027459A2] Disclosed is a solar sensor for detecting the direction of incidence and the intensity of solar radiation. Said solar sensor comprises a housing (12) made of a plastic material that is permeable to at least some of the solar radiation. The housing (12) has a curved side (14) facing the incident solar radiation, optically acts as a lens, and has an internal focal plane (26) defined by the lens characteristics thereof. The solar sensor further comprises at least two photosensors (16) that are embedded in the plastic material of the housing (12) and each have a sensor area (18) sensitive at least to the part of the radiation to which the plastic material is permeable. The sensor areas (18) of the photosensors (16) are disposed substantially parallel to the focal plane (26) in front of or behind the focal plane (26) from the perspective of the side (14) facing the incident solar radiation. The direction of incidence of the solar radiation can be determined based on the intensities of the solar radiation received by the sensor areas (18) of the photosensors (16).

IPC 8 full level

G01J 1/42 (2006.01); **G01S 3/782** (2006.01); **H01L 31/0203** (2006.01)

CPC (source: EP US)

G01J 1/4228 (2013.01 - EP US); **G01S 3/781** (2013.01 - EP US); **G01S 3/783** (2013.01 - EP US); **H01L 31/02024** (2013.01 - EP US); **H01L 31/0203** (2013.01 - EP US); **H01L 31/02325** (2013.01 - EP US); **G01J 2001/4266** (2013.01 - EP US); **H01L 2224/48247** (2013.01 - EP US); **H01L 2924/181** (2013.01 - EP US)

Citation (search report)

See references of WO 2009027459A2

Cited by

DE102015221970A1

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)

WO 2009027459 A2 20090305; **WO 2009027459 A3 20090528**; EP 2181313 A2 20100505; JP 2010537214 A 20101202; KR 20100049677 A 20100512; US 2011240862 A1 20111006; US 8785858 B2 20140722

DOCDB simple family (application)

EP 2008061293 W 20080828; EP 08803319 A 20080828; JP 2010522369 A 20080828; KR 20107006883 A 20080828; US 67437008 A 20080828