

Title (en)  
SENSOR FOR DETECTING HUMIDITY DROPS AND/OR DIRT PARTICLES ON A GLASS SURFACE AND A METHOD FOR OPERATING SUCH A SENSOR

Title (de)  
SENSOR ZUR DETEKTION VON FEUCHTIGKEITSTROPFEN UND/ODER SCHMUTZPARTIKELN AUF EINER SCHEIBE UND VERFAHREN ZUM BETREIBEN EINES SOLCHEN SENSORS

Title (fr)  
CAPTEUR POUR LA DETECTION DE GOUTTES D'HUMIDITE ET/OU DE PARTICULES DE SALETE SUR UNE VITRE, ET PROCEDE POUR FAIRE FONCTIONNER UN TEL CAPTEUR

Publication  
**EP 1224452 A1 20020724 (DE)**

Application  
**EP 00954646 A 20000823**

Priority  
• DE 19951831 A 19991028  
• EP 0008231 W 20000823

Abstract (en)  
[origin: DE19951831A1] The invention relates to a sensor (1) for detecting humidity drops (7) and/or dirt particles (8) on a glass surface (2), especially a rear window of a motor vehicle. The sensor (1) is provided with at least one emitter (3) for emitting optical beams (4) onto the glass surface. The sensor is also provided with at least one detector (10) for receiving at least a portion of the beams (9) that are reflected by the humidity drops (7) and/or the dirt particles (8) and for generating a receiving signal (11) which depends upon the received beams (9). The sensor (1) is further provided with evaluation means for evaluating the receiving signal (11). The invention also relates to a method for operating such a sensor (1). The aim of the invention is to reduce fabrication costs for such a sensor (1) and to enable digitalisation of the receiving signal (11) of the sensor (1) with a sufficiently high resolution and dynamic. The or each emitter (3) emits optical beams (4) in a temporally successive manner, whereby said beams have different luminous intensities. The evaluation means allocate the luminous intensities of the emitted optical beams to the receiving signal (11). The luminous intensities are considered during evaluation of the receiving signal (11).

IPC 1-7  
**G01N 21/94**; **G01N 21/88**; **B60S 1/08**

IPC 8 full level  
**G01N 21/17** (2006.01); **B60S 1/08** (2006.01); **G01N 21/94** (2006.01)

CPC (source: EP)  
**B60S 1/0822** (2013.01); **B60S 1/0837** (2013.01); **B60S 1/0888** (2013.01); **G01N 21/94** (2013.01)

Citation (search report)  
See references of WO 0131319A1

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**DE 19951831 A1 20010503**; EP 1224452 A1 20020724; JP 2005518519 A 20050623; WO 0131319 A1 20010503; WO 0131319 A9 20040429

DOCDB simple family (application)  
**DE 19951831 A 19991028**; EP 0008231 W 20000823; EP 00954646 A 20000823; JP 2001533408 A 20000823