

Title (en)
MEASURING DEVICE FOR CONTACTLESS DISTANCE MEASUREMENT

Title (de)
MESSGERÄT ZUR BERÜHRUNGSLOSEN ABSTANDSMESSUNG

Title (fr)
APPAREIL DE MESURE PERMETTANT DE MESURER DES DISTANCES SANS CONTACT

Publication
EP 1451607 A2 20040901 (DE)

Application
EP 02782714 A 20021011

Priority
• DE 0203872 W 20021011
• DE 10157378 A 20011122

Abstract (en)
[origin: WO03046604A2] Disclosed is a measuring device for contactless distance measurement, comprising an optical transmission path (12) with an optical transmitter (22) and an optical reception path (13) with a receiver lens system (29) and an optical receiver (30), in addition to a device module (11) receiving components from the transmission and reception paths (12, 13). In order to maintain high measurement accuracy for the entire temperature range, the components of the transmission and reception path (12, 13) are placed in such a way that when the temperature causes the device module (11) to curve in the direction of the optical axes (121, 131) of the transmission and reception path (12, 13), the optical axes (121, 131) are shifted by an equal amount in the same direction. Preferably, the transmission and reception paths (12, 13) are folded in such a way that the transmitter (22) and receiver (30) are jointly disposed on a planar fixing surface, preferably a printed circuit board (15) for receiving electronic components, which is secured in the device module (11).

IPC 1-7
G01S 7/481

IPC 8 full level
G01C 3/06 (2006.01); **G01S 7/481** (2006.01); **G01S 7/497** (2006.01); **G01S 17/08** (2006.01); **G01S 17/88** (2006.01)

CPC (source: EP US)
G01S 7/481 (2013.01 - EP US); **G01S 7/497** (2013.01 - EP US)

Citation (search report)
See references of WO 03046604A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)
WO 03046604 A2 20030605; WO 03046604 A3 20030814; CN 100442079 C 20081210; CN 1636148 A 20050706; DE 10157378 A1 20030605; DE 10157378 B4 20121025; EP 1451607 A2 20040901; JP 2005510739 A 20050421; US 2004263825 A1 20041230; US 7142288 B2 20061128

DOCDB simple family (application)
DE 0203872 W 20021011; CN 02823181 A 20021011; DE 10157378 A 20011122; EP 02782714 A 20021011; JP 2003547990 A 20021011; US 49581004 A 20040517