Title (en)

TRANSMISSION DEVICE FOR AN OPTICAL MEASUREMENT APPARATUS FOR DETECTING OBJECTS, LIGHT SIGNAL DEFLECTION DEVICE, MEASUREMENT APPARATUS AND METHOD FOR OPERATING A MEASUREMENT APPARATUS

Title (de)

SENDEEINRICHTUNG FÜR EINE OPTISCHE MESSVORRICHTUNG ZUR ERFASSUNG VON OBJEKTEN, LICHTSIGNALUMLENKEINRICHTUNG, MESSVORRICHTUNG UND VERFAHREN ZUM BETREIBEN EINER MESSVORRICHTUNG

Title (fr)

DISPOSITIF D'ÉMISSION POUR UN DISPOSITIF DE MESURE OPTIQUE DESTINÉ À DÉTECTER DES OBJETS, DISPOSITIF DE DÉFLEXION DE SIGNAUX LUMINEUX, DISPOSITIF DE MESURE ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UN DISPOSITIF DE MESURE

Publication

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Application

EP 20743684 A 20200721

Priority

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- EP 2020070529 W 20200721

Abstract (en)

[origin: WO2021013827A1] The invention relates to a transmission device (24) for an optical measurement apparatus (12) for detecting objects (18) in a monitored region (16), a light signal deflection device (34, 40), a measurement apparatus (12) and a method for operating a measurement apparatus (12). The transmission device (24) comprises at least one transmitter light source (30) for emitting light signals (20) and at least one light signal deflection device (34) for deflecting the light signals (20) into at least one monitored region (16) of the measurement apparatus (12). The at least one light signal deflection device (34) has at least one deflection region (42a), which can act on the light signals (20) in direction-changing fashion and depending on an incidence (52) of the light signals (20). Furthermore, the transmission device (24) has at least one driving device (50), by means of which the at least one light signal deflection device (34) can be moved to change an incidence (52) of the light signals (20) on the at least one deflection region (42a). At least two deflection regions (42a) are arranged one behind the other in the beam path of the light signals (20). At least one deflection region (42a) has at least one diffractive structure, which has the action of an optical lens. The transmitter deflection regions (42a) are implemented for example on opposite sides of a rectangular, flat substrate (44). The transmitter deflection regions (42a) each extend as strips over almost the entire width of the substrate (44) transversely to the axis (46). The receiver light signal deflection device (40) is constructed analogously to the transmitter light signal deflection device (34). A position detection device (60) comprises a position region (62) for example in the form of a diffractive structure, for example a diffractive optical element, and an optical position detector (66). A pivoted position of the substrate (44) and thus of the transmitter light signal deflection device (34) and of the receiver light signal deflection device (40) can be determined by the position detection device (60).

IPC 8 full level

G01S 7/481 (2006.01); **G01S 17/931** (2020.01)

CPC (source: CN EP US)

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Citation (search report)

See references of WO 2021013827A1

Designated contracting state (EPC)

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BA ME

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DOCDB simple family (application)

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