

Title (en)

PHOTOCONDUCTING MEASURING TIP, MEASUREMENT ARRANGEMENT, AND METHOD FOR PRODUCING AND/OR DETECTING ELECTROMAGNETIC FIELD SIGNALS

Title (de)

PHOTOLEITENDE MESSSPITZE, MESSTECHNISCHE ANORDNUNG UND VERFAHREN ZUR ERZEUGUNG UND/ODER DETEKTION ELEKTROMAGNETISCHER FELDSIGNALE

Title (fr)

POINTE DE MESURE PHOTOCONDUCTRICE, DISPOSITIF TECHNIQUE DE MESURE ET PROCÉDÉ DE GÉNÉRATION ET/OU DE DÉTECTION DE SIGNAUX DE CHAMP ÉLECTROMAGNÉTIQUE

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Application

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Abstract (en)

[origin: WO2011134593A1] The invention relates to a photoconducting measuring tip (100, 200, 300), to a measuring arrangement, and to a method for producing and/or detecting electromagnetic field signals (EF, ERM), in particular for detecting the normal vector (ERM) of an electromagnetic field. The measuring tip comprises a carrier element (140), in particular made of a semiconductor substrate, on which at least one first and one second electrical conductor (120, 150, 250, 155, 255) extend, which face each other at a distance in an area (160, 260) of the carrier element (140) that can be put into a photoconducting state by optical excitation. The first electrical conductor (120) is used to couple in or couple out an electromagnetic field signal and passes by the distal end (151, 156, 251, 256) of the second electrical conductor (150, 250, 155, 255), which is used to transmit a photocurrent signal, wherein the first electrical conductor extends to the tip (142) of the measuring tip (100, 200, 300). A photoswitch is formed between the distal end (151, 156, 251, 256) of the second electrical conductor (150, 250, 155, 255) and the first electrical conductor (120). The photoswitch forms at least part of the photoconducting area (160, 260) and is set back from the tip (140).

IPC 8 full level

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