

Title (en)

SENSOR DEVICE FOR DETECTING A CHANGE IN A MAGNETIC FIELD AND TRACK-BOUND TRANSPORTATION SYSTEM HAVING AT LEAST ONE SUCH SENSOR DEVICE

Title (de)

SENSOREINRICHTUNG ZUM ERFASSEN EINER MAGNETFELDÄNDERUNG SOWIE ANLAGE DES SPURGEBUNDENEN VERKEHRS MIT ZUMINDEST EINER SOLCHEN SENSOREINRICHTUNG

Title (fr)

SYSTÈME DE CAPTEURS SERVANT À DÉTECTER UNE VARIATION DU CHAMP MAGNÉTIQUE ET INSTALLATION DE CIRCULATION GUIDÉE SUR RAILS COMPRENANT AU MOINS UN TEL SYSTÈME DE CAPTEURS

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Abstract (en)

[origin: WO2015158538A1] The present invention relates to a particularly efficient sensor device (1) for detecting a change in a magnetic field, which change is caused by an object approaching the sensor device (1) in a direction of movement (5) or moving past the sensor device (1) in the direction of movement (5). The sensor device (1) according to the invention has two sensor units (10, 20), wherein each of the sensor units (10, 20) comprises two receiver coils (12, 13; 22, 23) and an alternating-current-fed transmitter coil (11; 21) which is arranged between the receiver coils (12, 13; 22, 23) with respect to the direction of movement (5), wherein the longitudinal axes (12a, 13a; 22a 23a) of the receiver coils (12, 13; 22, 23) of the two sensor units (10, 20) are oriented essentially perpendicularly with respect to the direction of movement (5), wherein the longitudinal axes (11a; 21a) of the transmitter coils (11; 21) of the two sensor units (10, 20) are oriented essentially parallel to the direction of movement (5), wherein the transmitter coils (11; 21) of the two sensor units (10, 20) are arranged one behind the other with respect to the direction of movement (5), and wherein the sensor device (1) is embodied in such a way that the transmitter coils (11; 21) of the two sensor units (10, 20) generate magnetic fluxes (60, 70) which are opposed to one another. The invention also relates to a track-bound transportation system having at least one sensor device (1) according to the invention.

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