

Title (en)  
MAGNETIC SENSING DEVICE AND BILL VALIDATOR

Title (de)  
MAGNETISCHE ERFASSUNGSVORRICHTUNG UND BANKNOTENÜBERPRÜFUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF DE DÉTECTION MAGNÉTIQUE ET VALIDATEUR DE BILLETS

Publication  
**EP 2835660 A1 20150211 (EN)**

Application  
**EP 13772401 A 20130321**

Priority  
• JP 2012085472 A 20120404  
• JP 2013058001 W 20130321

Abstract (en)  
A magnetism detecting device that can achieve a high gain and can also detect magnetism without being affected by an offset voltage, and a banknote identifying apparatus that includes such a magnetism detecting device are configured. A magnetism detecting device (101) includes a magnetic sensor (1) that is provided with a resistive voltage divider circuit including a magnetoresistive element (R1), an alternating current amplifier circuit (20) that subjects an output signal of the magnetic sensor (1) to alternating current amplification, an integrating circuit (30) that integrates an output signal of the alternating current amplifier circuit (20), and a differential amplifier circuit (40) that subjects the output signal of the alternating current amplifier circuit (20) and an output signal of the integrating circuit (30) to differential amplification.

IPC 8 full level  
**G01R 33/09** (2006.01); **G07D 7/04** (2006.01); **H10N 50/10** (2023.01)

CPC (source: EP US)  
**G07D 7/04** (2013.01 - EP US)

Cited by  
EP3309570A4

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2835660 A1 20150211**; **EP 2835660 A4 20160106**; **EP 2835660 B1 20171129**; CN 104169734 A 20141126; CN 104169734 B 20170322; JP 5930024 B2 20160608; JP WO2013150896 A1 20151217; KR 101614102 B1 20160420; KR 20140137386 A 20141202; WO 2013150896 A1 20131010

DOCDB simple family (application)  
**EP 13772401 A 20130321**; CN 201380015073 A 20130321; JP 2013058001 W 20130321; JP 2014509101 A 20130321; KR 20147026602 A 20130321