

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2016/111810

A. CLASSIFICATION OF SUBJECT MATTER

G01D 5/12 (2006.01) i; H02K 11/215 (2016.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01D 5, H02K 11

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNTXT; CNABS; CNKI; VEN: +coder?, +encoder?, permeability, magnetic, conduct+, soft, scale?, disc, disk, plate, magnetoresist+,
magneto resist+, Hall

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2004117101 A (YASKAWA ELECTRIC CORP.) 15 April 2004 (15.04.2004) description, paragraphs [0014] and [0015], and figure 2	1-10
Y	JP 2004117101 A (YASKAWA ELECTRIC CORP.) 15 April 2004 (15.04.2004) description, paragraphs [0014] and [0015], and figure 2	2, 10
Y	CN 2788137 Y (YU, Weiguo) 14 June 2006 (14.06.2006) description, page 2, line 15 to page 3, line 22, and figures 1-3	2, 10
PX	CN 106052723 A (JIANGSU SENTRONIC ELECTRONICS TECHNOLOGY INC.) 26 October 2016 (26.10.2016) claims 1-10	1-10
PX	CN 205808430 U (JIANGSU SENTRONIC ELECTRONICS TECHNOLOGY INC.) 14 December 2016 (14.12.2016) description, paragraphs [0007]-[0031]	1-10

Further documents are listed in the continuation of Box C.

See patent family annex.

<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p>	<p>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>“&” document member of the same patent family</p>
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<p>Date of the actual completion of the international search</p> <p style="text-align: center;">07 March 2017</p>	<p>Date of mailing of the international search report</p> <p style="text-align: center;">23 March 2017</p>
<p>Name and mailing address of the ISA</p> <p>State Intellectual Property Office of the P. R. China</p> <p>No. 6, Xitucheng Road, Jimenqiao</p> <p>Haidian District, Beijing 100088, China</p> <p>Facsimile No. (86-10) 62019451</p>	<p>Authorized officer</p> <p style="text-align: center;">LIU, Jin</p> <p>Telephone No. (86-10) 62089304</p>

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 1260871 A (YASKAWA DENKI K. K.) 19 July 2000 (19.07.2000) description, page 3, lines 6-16, and figure 1	1-10
X	CN 103968860 A (JIANGSU MULTIDIMENSION TECHNOLOGY CO., LTD.) 06 August 2014 (06.08.2014) description, paragraphs [0043]-[0049], and figures 1A-1D	1-10
A	CN 2255038 Y (UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA) 28 May 1997 (28.05.1997) the whole document	1-10
A	CN 102099663 A (CONTINENTAL TEVES AG. & CO. OHG) 15 June 2011 (15.06.2011) the whole document	1-10
A	JP H0552584 A (TOSHIBA CORP.) 02 March 1993 (02.03.1993) the whole document	1-10

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2016/111810

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
JP 2004117101 A	15 April 2004	None	
CN 2788137 Y	14 June 2006	None	
CN 106052723 A	26 October 2016	None	
CN 205808430 U	14 December 2016	None	
CN 1260871 A	19 July 2000	EP 0977016 B1	26 February 2003
		DE 69811652 T2	18 September 2003
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		JP H10293042 A	04 November 1998
		WO 9846968 A1	22 October 1998
		EP 0977016 A4	05 July 2000
		DE 69811652 D1	03 April 2003
CN 103968860 A	06 August 2014	WO 2014117734 A9	30 October 2014
		JP 2016509218 A	24 March 2016
		EP 2952857 A4	09 November 2016
		WO 2014117734 A2	07 August 2014
		EP 2952857 A2	09 December 2015
		WO 2014117734 A3	25 September 2014
		US 2015369628 A1	24 December 2015
CN 2255038 Y	28 May 1997	None	
CN 102099663 A	15 June 2011	WO 2010007068 A1	21 January 2010
		KR 20110041468 A	21 April 2011
		CN 102099663 B	19 June 2013
		DE 102009033242 A1	21 January 2010
		EP 2300795 A1	30 March 2011
		US 2011167920 A1	14 July 2011
		US 8607650 B2	17 December 2013
JP H0552584 A	02 March 1993	None	