

(12) International Application Status Report

Received at International Bureau: 15 November 2019 (15.11.2019)

Information valid as of: 09 September 2020 (09.09.2020)

Report generated on: 19 September 2020 (19.09.2020)

(10) Publication number:

WO2020/111559

(43) Publication date:

04 June 2020 (04.06.2020)

(26) Publication language:

Korean (KO)

(21) Application Number:

PCT/KR2019/015013

(22) Filing Date:

07 November 2019 (07.11.2019)

(25) Filing language:

Korean (KO)

(31) Priority number(s):

10-2018-0151916 (KR)

(31) Priority date(s):

30 November 2018 (30.11.2018)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

H01F 7/16 (2006.01); **H01F 7/08** (2006.01); **H01F 7/10** (2006.01); **H01F 7/18** (2006.01)

(71) Applicant(s):

CK MATERIALS LAB CO., LTD. [KR/KR]; No. 1205, 11, Digital-ro 33-gil Guro-Gu Seoul 08380 (KR) (*for all designated states*)

(72) Inventor(s):

KIM, Hyeong Jun; No. 1205, 11, Digital-ro 33-gil Guro-gu Seoul 08380 (KR)

LEE, Jong Hun; No. 1205, 11, Digital-ro 33-gil Guro-gu Seoul 08380 (KR)

LEE, Jong Ki; No. 1205, 11, Digital-ro 33-gil Guro-gu Seoul 08380 (KR)

(74) Agent(s):

KIM, Han; Yulmin IP Law Firm, 2F, Kaaram Building, 8-9, Nambusunhwan-ro 364-gil, Seocho-Gu, Seoul 06739 (KR)

(54) Title (EN): BROADBAND ACTUATOR

(54) Title (FR): ACTIONNEUR À LARGE BANDE

(54) Title (KO): 광대역 액추에이터

(57) Abstract:

(EN): A broadband actuator according to an embodiment may comprise: a cylindrical housing having an inner space; a yoke member installed in the inner space and provided with a cylindrical inner yoke that protrudes upward from the center of the lower side of the inner space; a hollow radial magnet installed to surround the outer circumferential surface of the inner yoke; a moving body provided with a cylindrical mass installed to surround the outer circumferential surface of the radial magnet, and provided with a coil part installed along the circumference of the mass; and an elastic member elastically supporting the moving body from one side of the inner space.

(FR): Un actionneur à large bande selon un mode de réalisation de la présente invention peut comprendre : un boîtier cylindrique ayant un espace interne ; un élément de culasse installé dans l'espace interne et pourvu d'une culasse interne cylindrique qui fait saillie vers le haut à partir du centre du côté inférieur de l'espace interne ; un aimant radial creux installé de façon à entourer la surface circonférentielle externe de la culasse interne ; un corps mobile pourvu d'une masse cylindrique installée de façon à entourer la surface circonférentielle externe de l'aimant radial, et pourvu d'une partie de bobine installée le long de la circonférence de la masse ; et un élément élastique soutenant élastiquement le corps mobile d'un côté de l'espace interne.

(KO): 일 실시 예에 따른 광대역 액추에이터는, 내부 공간을 갖는 원통 형상의 하우징; 상기 내부 공간에 설치되고, 상기 내부 공간의 하측의 중심으로부터 상측으로 돌출된 원기둥 형상의 내부 요크를 구비하는 요크 부재; 상기 내부 요크의 외주면을 감싸도록 설치되는 중공 형상의 래디얼 마그넷; 상기 래디얼 마그넷의 외주면을 감싸도록 설치되는 원통 형상의 질량체와, 상기 질량체의 둘레를 따라 설치되는 코일부를 구비하는 운동체; 및 상기 내부 공간의 일측으로부터 상기 운동체를 탄성 지지하는 탄성 부재를 포함할 수 있다.

International search report:

International Report on Patentability (IPRP) Chapter II of the PCT:

Not available

(81) Designated States:

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM