

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
28 August 2008 (28.08.2008)

PCT

(10) International Publication Number  
WO 2008/101996 A1

- (51) International Patent Classification:  
G01D 3/036 (2006.01) G01R 1/44 (2006.01)  
G01D 5/20 (2006.01) G01R 27/26 (2006.01)
- (21) International Application Number:  
PCT/EP2008/052145
- (22) International Filing Date:  
21 February 2008 (21.02.2008)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
07102960.7 23 February 2007 (23.02.2007) EP

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except US): SEM AK-TIEBOLAG [SE/SE]; Box 30, S-662 00 Åmål (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): OLSSON, Johan [SE/SE]; Korsbyn 304, S-662 91 Åmål (SE).

**Declaration under Rule 4.17:**

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

(74) Agent: AWAPATENT AB; Måns Roman Ekstedt, P.O. Box 11394, S-404 28 Göteborg (SE).

**Published:**

— with international search report

(54) Title: TEMPERATURE COMPENSATED INDUCTANCE MEASUREMENT

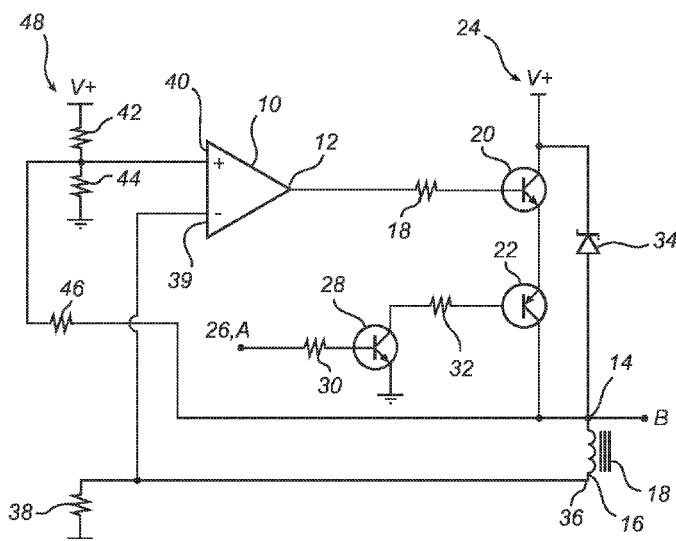


Fig. 1

(57) Abstract: The present invention relates to a method for providing a temperature compensated measurement of the inductance of a coil (16) in an inductive position sensor, the inductance of the coil (16) being an indication of a position to be measured. The method comprises: charging the coil (16) with a charging current by means of a current generator (10); discharging the coil subsequent to the charging by means of a discharging circuit (34), wherein a discharge time ( $L_i$ ) of the discharging is a measure of the inductance of the coil (16); and adjusting the charging current in relation to the resistance ( $R_i$ ) of the coil (16) so as to compensate for energy losses due to temperature induced resistance ( $R_i$ ) variations in the coil (16) during the discharging. The present invention also relates to a corresponding circuit.

WO 2008/101996 A1