

(12) 特許協力条約に基づいて公開された国際出願

(19) 世界知的所有権機関
国際事務局

(43) 国際公開日
2011 年 8 月 25 日(25.08.2011)



PCT



(10) 国際公開番号
WO 2011/102031 A1

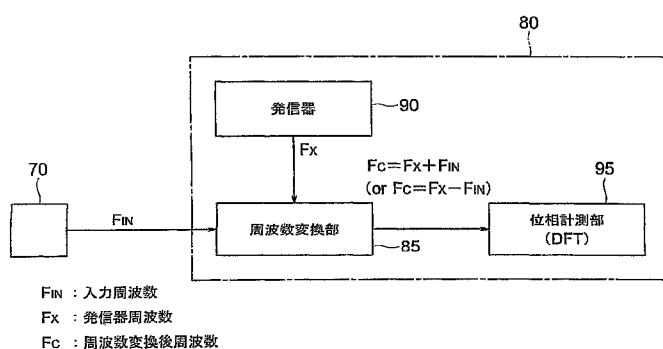
- (51) 国際特許分類:
G01F 1/84 (2006.01)
- (21) 国際出願番号: PCT/JP2010/070253
- (22) 国際出願日: 2010 年 11 月 9 日(09.11.2010)
- (25) 国際出願の言語: 日本語
- (26) 国際公開の言語: 日本語
- (30) 優先権データ:
特願 2010-034760 2010 年 2 月 19 日(19.02.2010) JP
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- (81) 指定国 (表示のない限り、全ての種類の国内保護が可能): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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.
- (84) 指定国 (表示のない限り、全ての種類の広域保護が可能): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ (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), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[続葉有]

(54) Title: SIGNAL PROCESSING METHOD, SIGNAL PROCESSING DEVICE, AND CORIOLIS FLOW METER.

(54) 発明の名称: 信号処理方法、信号処理装置、及びコリオリ流量計

FIG. 1



FIN : 入力周波数
Fx : 発信器周波数
Fc : 周波数変換後周波数

FIN Input frequency
Fx Transmitter frequency
Fc Post-frequency conversion frequency
85 Frequency conversion unit
90 Transmitter
95 Phase measuring unit (DFT)

(57) Abstract: Disclosed is a signal processing device which is always capable of measurement with constant precision, even if the temperature of the fluid to be measured changes, if the fluid to be measured becomes contaminated with bubbles, or if the fluid to be measured has rapidly changed from a gas to a liquid, and which can carry out phase and density measurement with low computational complexity. In a coriolis flow meter at least one or a pair of flow tubes which constitute a flow tube for measurement are driven by a drive device to operate a vibrator, and the flow tubes are alternately driven, and vibrated, thus the phase difference and/or the vibration frequency proportional to the coriolis force acting on the flow tubes is detected by means of a speed sensor or an acceleration sensor which is a vibration detection sensor, and the mass flow rate and/or the density of the liquid to be measured can be obtained. The coriolis flow meter is formed from: a transmitter (90) which transmits and outputs a frequency signal which can be modulated; and a frequency conversion unit (85) which performs an addition (or a subtraction) on the input frequency as detected by the speed sensor or the acceleration sensor, and the output frequency (Fc).

of the transmitter (90), and performs a frequency conversion, then performs frequency shift so that the post-frequency conversion frequency value is always constant.

(57) 要約:

[続葉有]