



(51) International Patent Classification:
G01F 15/02 (2006.01) *G01F 1/84* (2006.01)

(21) International Application Number:
PCT/US2010/052630

(22) International Filing Date:
14 October 2010 (14.10.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/381,260 9 September 2010 (09.09.2010) US

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(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, 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, 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, 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) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

(54) Title: THERMAL STRESS COMPENSATION IN A CURVED TUBE VIBRATING FLOW METER

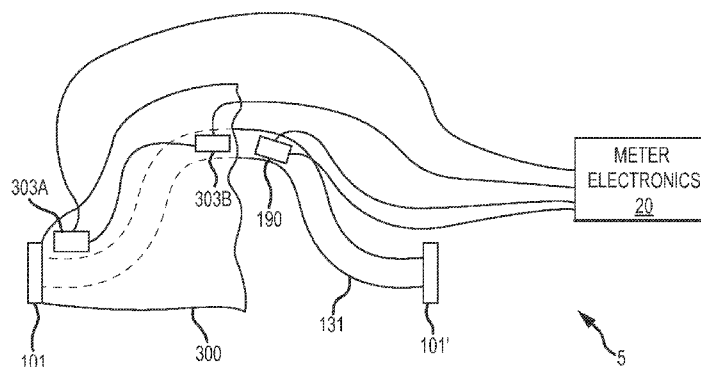


FIG. 3

(57) Abstract: A curved tube vibrating flow meter (5) includes a flow tube temperature sensor T_T (190) and a plurality of case temperature sensors T_C (303) affixed to one or more case locations of a case (300) of the curved tube vibrating flow meter (5). The plurality of case temperature sensors T_C (303) generate a case temperature signal, wherein a plurality of case temperature sensor resistances at the one or more case locations form a combined case resistance related to thermal importances of the one or more case locations. Meter electronics (20) receives the flow tube temperature signal, receives the case temperature signal, and compensates the curved tube vibrating flow meter (5) for thermal stress using the flow tube temperature signal and the case temperature signal.