

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2001 (26.04.2001)

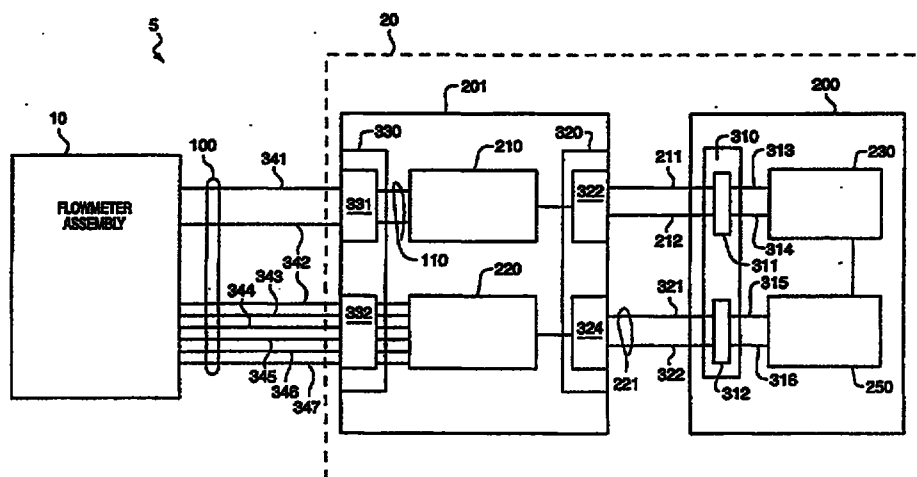
PCT

(10) International Publication Number
WO 01/29519 A1

- (51) International Patent Classification⁷: G01F 1/84, H02H 9/00
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- (21) International Application Number: PCT/US00/26420
- (81) Designated States (*national*): AU, BR, CA, CN, ID, IN, JP, KR, MX, PL, RU, SG.
- (22) International Filing Date:
26 September 2000 (26.09.2000)
- (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).
- (25) Filing Language: English
- (26) Publication Language: English
- Published:
— With international search report.
- (30) Priority Data:
09/419,346 15 October 1999 (15.10.1999) US
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTRINSICALLY SAFE SIGNAL CONDITIONER FOR A CORIOLIS FLOWMETER



(57) Abstract: Meter electronics (20) for a Coriolis flowmeter (5) capable of being intrinsically safe. A signal conditioner (201) receives power from a power supply (230) in a host system (200) remote from the signal conditioner (201). Drive circuitry (210) in the signal conditioner (201) generates a drive signal and applies the drive signal to a driver (104). Pick-off signal conditioning circuitry (220) in the signal conditioner receives input signals from a first pick-off sensor (105) and a second pick-off sensor (105'), generates information indicating properties of a material flowing through the conduit from the input signals, and transmits output signals. Host-side protection circuitry (320) in the signal conditioner (201) prevents power in excess of an intrinsically safe threshold from being applied to leads connecting the signal conditioner to the host system (200) and flowmeter assembly protection circuitry (330) in said signal conditioner prevents power in excess of the intrinsically safe threshold from being applied to leads (100) connecting the signal conditioner (201) to the driver (104), the first pick-off sensor (105), and the second pick-off sensor (105').

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