

Title (en)

VIBRATION SENSOR AND IN-LINE MEASURING DEVICE COMPRISING SAID SENSOR

Title (de)

MESSAUFNEHMER VOM VIBRATIONSTYP SOWIE IN-LINE-MESSGERÄT MIT EINEM SOLCHEN MESSAUFNEHMER

Title (fr)

CAPTEUR DE MESURE À VIBRATION ET INSTRUMENT DE MESURE EN LIGNE MUNI D'UN TEL CAPTEUR DE MESURE

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Application

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Abstract (en)

[origin: WO2010103075A1] The measuring system according to the invention comprises a vibration-type measuring transducer, through which the medium flows during operation and which is intended to generate oscillation signals that are dependent on a viscosity of the flowing medium and/or on a Reynolds number of the flowing medium, and transducer electronics which are electrically coupled to the measuring transducer and are intended to drive the measuring transducer and to evaluate oscillation signals provided by the measuring transducer. The measuring transducer has an inlet-side flow divider (201) with at least two flow openings (201A, 201B) which are at a distance from one another, an outlet-side flow divider (202) with at least two flow openings (202A, 202B) which are at a distance from one another, at least two straight measuring tubes (181, 182) which are parallel to one another, are connected to the flow dividers (201, 202) so as to form a tube arrangement with at least two flow paths connected in parallel in terms of flow technology and are intended to guide flowing medium, and an electromechanical exciter arrangement (4) for exciting and maintaining mechanical oscillations of the at least two measuring tubes (181, 182). An inlet-side measuring tube end of each of the at least two measuring tubes opens into a flow opening (201A) of the inlet-side flow divider (201) and an outlet-side, second measuring tube end of each of said measuring tubes opens into a flow opening (202A) of the outlet-side flow divider (202). The transducer electronics use one of the electrical driver signals supplied to the exciter arrangement to feed electrical exciter power into the exciter arrangement, while the exciter arrangement at least proportionately converts electrical exciter power into mirror-image torsional oscillations of the at least two measuring tubes (181, 182).

IPC 8 full level

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WO 9608697 A2 19960321 - SMITH METER INC [US], et al

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