

Title (en)
PRESSURE MEASURING SENSOR

Title (de)
DRUCKMESSAUFNEHMER

Title (fr)
CAPTEUR DE MESURE DE PRESSION

Publication
EP 2057451 A1 20090513 (DE)

Application
EP 07786898 A 20070628

Priority

- EP 2007056507 W 20070628
- DE 102006035230 A 20060726

Abstract (en)
[origin: WO2008012162A1] Disclosed is a dry front-flush pressure measuring sensor which can take reliable measurements within a great temperature range and comprises a process connection (1, 1a, 1b) that is made of stainless steel and is used for fastening the pressure measuring sensor to a measuring point, and a pressure sensor module (3, 17, 29, 41). Said pressure sensor module (3, 17, 29, 41) is provided with a stainless steel fixture (5, 19, 31, 43), into which a metallic separating membrane is inserted in a front-flush manner by means of a purely metallic connection, a pressure (p) that is to be measured being applied to the external face of said separating membrane. The fixture (5, 19, 31, 43) is inserted in a front-flush manner into the process connection (1, 1a, 1b) by means of a purely metallic connection. The pressure sensor module (3, 17, 29, 41) is also provided with a round titanium plate (7, 27, 53) which is supported by the fixture (5, 19, 31, 43) and to which a sapphire support (13) is applied that is fitted with silicon sensors (15) introduced thereinto. The round titanium plate (7, 27, 53) forms the separating membrane (7) or is mechanically connected to the separating membrane (23, 35, 51) in such a way that a deflection of the separating membrane (23, 35, 51) causes the round titanium plate (27) to be deflected in a corresponding fashion.

IPC 8 full level
G01L 7/08 (2006.01); **G01L 9/00** (2006.01); **G01L 23/18** (2006.01)

CPC (source: EP US)
G01L 9/0044 (2013.01 - EP US); **G01L 9/0055** (2013.01 - EP US); **G01L 19/0645** (2013.01 - EP US); **G01L 23/18** (2013.01 - EP US); **Y10T 29/49007** (2015.01 - EP US)

Citation (search report)
See references of WO 2008012162A1

Citation (examination)

- US 5796109 A 19980818 - FREDERICK LARRY D [US], et al
- JP 2004053290 A 20040219 - MINEBEA CO LTD

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Designated extension state (EPC)
AL BA HR MK RS

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