

PRESSURE TRANSDUCER, METHOD FOR MONITORING THE STATE
OF A PRESSURE TRANSDUCER AND PRESSURE SENSOR

Abstract:

5 The invention relates to a pressure transducer for a pressure sensor (2) for determining at least one pressure (p_a , p_b) in a process media (3a, 3b) having a housing (4) with a separating diaphragm (5a, 5b), at least one first pressure-sensing element (6a, 6b), a contact media (7a, 7b), at least one first connection element (8a, 8b) and with at least one first seal (9a, 9b), wherein the separating diaphragm (5a, 5b) separates the process media (3a, 3b) from the contact media (7a, 7b), the contact media (7a, 7b) conveys the pressure (p_a , p_b) of the process media (3a, 3b) determined by the separating diaphragm (5a, 5b) to the first pressure-sensing element (6a, 6b), and wherein the first seal (9a, 9b) houses the first connection element (8a, 8b) and wherein the housing (4), the separating diaphragm (5a, 5b) and the first seal (9a, 9b) form a first pressure chamber (10a, 10b).

15 It is the object of the invention to avoid – at least partially – the described disadvantages in the pressure transducers known from the prior art, in particular to allow detection of a flaw in the area of the first seal.

20 The object is met in that a second pressure chamber (14) is provided on the side of the first pressure chamber (10a, 10b) opposite the first seal (9a, 9b) and a second pressure-sensing element (15) is arranged in the second pressure chamber (14).

(Fig. 1)