

Title (en)
SONIC OR ULTRASONIC TRANSDUCER

Title (de)
SCHALL- ODER ULTRASCHALLWANDLER

Title (fr)
TRANSDUCTEUR ACOUSTIQUE OU ULTRASONIQUE

Publication
EP 1664684 A2 20060607 (DE)

Application
EP 04765412 A 20040920

Priority
• EP 2004010526 W 20040920
• DE 10344741 A 20030925

Abstract (en)
[origin: US7411335B2] A sonic or ultrasonic transducer, which is embodied as a radial oscillator. So that the sonic or ultrasonic transducer can be used at high temperatures, a matching layer is located between the radial oscillator and the atmosphere into which the ultrasonic signals are transmitted. The matching layer is made from a material that has a dimensional stability up to a temperature which lies above the temperature at the installation location of the sonic or ultrasonic transducer. Furthermore, the matching layer is selected such that its material-specific coefficient of thermal expansion is greater than that of the materials of a piezoelectric unit and a coupling ring, and that the modulus of elasticity of the material of the matching layer is at least one order of magnitude smaller than that of the piezoelectric unit and/or the coupling ring.

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G01F 1/00

IPC 8 full level
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