

Title (en)  
ULTRASONIC SENSOR

Publication  
**EP 0227985 A3 19871021 (DE)**

Application  
**EP 86117065 A 19861208**

Priority  
DE 3545382 A 19851220

Abstract (en)  
[origin: US4734611A] The invention concerns an ultrasonic sensor (24) in which a polymer foil (4) supported in its peripheral area is piezoelectrically activated at least in a partial section (42). The partial section (42) is electrically coupled to electrodes (8). According to the invention, the electrodes (8), which produce an electrical signal in cooperation with this partial section (42) in response to an ultrasonic wave and are spatially separated from the piezoelectrically active section (42). Because of this feature, the ultrasonic sensor (24) can be used also for measuring ultrasonic shock waves with a high pressure amplitude, since an electrically conductive layer for receiving the electrical signal located on the flat sides of the polymer foil (4) in the piezoelectrically active section (42), is no longer needed.

IPC 1-7  
**H04R 1/44**; **H04R 17/00**

IPC 8 full level  
**H04R 1/44** (2006.01); **B06B 1/06** (2006.01); **H04R 17/00** (2006.01)

CPC (source: EP US)  
**B06B 1/0688** (2013.01 - EP US); **Y10S 310/80** (2013.01 - EP US)

Citation (search report)  
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• [AD] ULTRASONICS, September 1981, Seiten 213-216, IPC Business Press, Guilford; (GB) P.A. LEWIN: "Miniature piezoelectricpolymer ultrasonic hydrophone probes."  
• [AD] JOURNAL OF THE ACOUSTICS SOCIETY OF AMERICA; Band 69, Nr. 3, März 1981, Seiten 853-859; New York, (US) A.S. DeREGGI et al.: "Piezoelectricpolymer probe for ultrasonic applications."

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