

Title (en)

Magnet system for a light-weight loudspeaker

Title (de)

Magnetsystem für Konuslautsprecher in Leichtbauweise

Title (fr)

Système d'aimant pour un haut-parleur à construction allégée

Publication

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Application

EP 93115768 A 19930930

Priority

DE 4234069 A 19921009

Abstract (en)

[origin: EP0591837A1] According to the prior art, it is known to construct cone loudspeakers, which are suitable for reproduction of tone signals which have long excursions or a wide band width, with magnet systems (10) which exhibit a circularly constructed permanent magnet (12) consisting of ferrite. To provide the induction required for these magnet systems (10) in the air gap (20), it is necessary to design the permanent magnets (12) to be of large size. It is also known to construct short-excursion magnet systems in such a manner that the pole core is formed from a magnetically highly energetic material (= neodyme). This pole core is centrally inserted into a magnet pot. These magnet systems, which, compared with the aforementioned type of magnet systems (10), can be constructed to be much smaller and of lighter weight whilst having the same power, are not applicable to magnet systems (10) which are suitable for transmitting tone signals with wide band width or long excursion since a pole core of neodyme is not capable of providing the induction required for these magnet systems (10) in the air gap. According to the invention, it is therefore specified to provide a conventional magnet system (10) with a pole core (13) which is formed at least partially of neodyme material. Due to this measure, it becomes possible to reduce the weight of the magnet system by at least 50 % compared with conventional magnet systems (10) whilst retaining the same induction in the air gap (20) and the same air gap dimensions. <IMAGE>

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