

Symbol	Typ	Titel
H	Sektion	ELECTRICITY
H04	Klasse	ELECTRIC COMMUNICATION TECHNIQUE
H04R	Unterklasse	LOUDSPEAKERS, MICROPHONES, GRAMOPHONE PICK-UPS OR LIKE ACOUSTIC ELECTROMECHANICAL TRANSDUCERS; DEAF-AID SETS; PUBLIC ADDRESS SYSTEMS (generating mechanical vibrations in general B06B; transducers for measuring particular variables G01; transducers in clocks G04; producing sounds with frequency not determined by supply frequency G10K; transducers in recording or reproducing heads G11B; transducers in motors H02) [6]
H04R 1/00	Hauptgruppe	Details of transducers (diaphragms H04R 7/00; characterised by the nature of the transducer, see the relevant group of main groups H04R 9/00 to H04R 23/00; mounting radio sets or communication systems in helmets A42B 3/30; mountings specially adapted for telephone equipment H04M 1/02)
H04R 1/02	1-Punkt Untergruppe	. Casings; Cabinets; Mountings therein (H04R 1/28 takes precedence)
H04R 1/04	2-Punkt Untergruppe	. . Structural association of microphone with electric circuitry therefor (in deaf-aid sets H04R 25/00)
H04R 1/06	1-Punkt Untergruppe	. Arranging circuit leads; Relieving strain on circuit leads
H04R 1/08	1-Punkt Untergruppe	. Mouthpieces; Attachments therefor
H04R 1/10	1-Punkt Untergruppe	. Earpieces; Attachments therefor
H04R 1/12	1-Punkt Untergruppe	. Sanitary or hygienic devices for mouthpieces or earpieces, e.g. for protecting against infection
H04R 1/14	1-Punkt Untergruppe	. Throat mountings for microphones
H04R 1/16	1-Punkt Untergruppe	. Mounting or connecting stylus to transducer with or without damping means
H04R 1/18	2-Punkt Untergruppe	. . Holders for styli; Mounting holders on transducers
H04R 1/20	1-Punkt Untergruppe	. Arrangements for obtaining desired frequency or directional characteristics (for stereophonic purposes H04R 5/00; speech enhancement by processing of the speech signal G10L 21/02)
H04R 1/22	2-Punkt Untergruppe	. . for obtaining desired frequency characteristic only (circuits for combining transducers having different responses H04R 3/00)
H04R 1/24	3-Punkt Untergruppe	. . . Structural combinations of separate transducers or of parts of the same transducer and responsive respectively to two or more frequency ranges
H04R 1/26	3-Punkt Untergruppe	. . . Spatial arrangement of separate transducers responsive to two or more frequency ranges
H04R 1/28	3-Punkt Untergruppe	. . . Transducer mountings or enclosures designed for specific frequency response; Transducer enclosures modified by provision of mechanical or acoustic impedances, e.g. resonator, damping means
H04R 1/30	3-Punkt Untergruppe	. . . Combinations of transducers with horns, e.g. with mechanical matching means (horns in general G10K)
H04R 1/32	2-Punkt Untergruppe	. . for obtaining desired directional characteristic only
H04R 1/34	3-Punkt Untergruppe	. . . by using a single transducer with sound reflecting, diffracting, directing or guiding means
H04R 1/36	4-Punkt Untergruppe	 by using a single aperture of dimensions not greater than the shortest operating wavelength
H04R 1/38	4-Punkt Untergruppe	 in which sound waves act upon both sides of a diaphragm and incorporating acoustic phase-shifting means, e.g. pressure-gradient microphone
H04R 1/40	3-Punkt Untergruppe	. . . by combining a number of identical transducers
H04R 1/42	1-Punkt Untergruppe	. Combinations of transducers with fluid-pressure or other non-electrical amplifying means

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H04R 1/44	1-Punkt Untergruppe	. Special adaptations for subaqueous use, e.g. for hydrophone
H04R 1/46	1-Punkt Untergruppe	. Special adaptations for use as contact microphones, e.g. on musical instrument, on stethoscope (throat mountings H04R 1/14)
H04R 3/00	Hauptgruppe	Circuits for transducers (for stereophonic arrangements H04R 5/04; arrangements for producing a reverberation or echo sound G10K 15/08; amplifiers H03F)
H04R 3/02	1-Punkt Untergruppe	. for preventing acoustic reaction
H04R 3/04	1-Punkt Untergruppe	. for correcting frequency response
H04R 3/06	2-Punkt Untergruppe	. . of electrostatic transducers
H04R 3/08	2-Punkt Untergruppe	. . of electromagnetic transducers
H04R 3/10	2-Punkt Untergruppe	. . of variable-resistance microphones
H04R 3/12	1-Punkt Untergruppe	. for distributing signals to two or more loud-speakers
H04R 3/14	2-Punkt Untergruppe	. . Cross-over networks
H04R 5/00	Hauptgruppe	Stereophonic arrangements (stereophonic pick-ups H04R 9/16 , H04R 11/12 , H04R 17/08 , H04R 19/10)
H04R 5/02	1-Punkt Untergruppe	. Spatial or constructional arrangements of loud-speakers
H04R 5/027	1-Punkt Untergruppe	. Spatial or constructional arrangements of microphones, e.g. in dummy heads [3]
H04R 5/033	1-Punkt Untergruppe	. Headphones for stereophonic communication [3]
H04R 5/04	1-Punkt Untergruppe	. Circuit arrangements (combinations of amplifiers H03F 3/68; stereophonic systems H04S)
H04R 7/00	Hauptgruppe	Diaphragms for electromechanical transducers (in general F16J 3/00); Cones (for musical instruments G10)
H04R 7/02	1-Punkt Untergruppe	. characterised by the construction
H04R 7/04	2-Punkt Untergruppe	. . Plane diaphragms
H04R 7/06	3-Punkt Untergruppe	. . . comprising a plurality of sections or layers
H04R 7/08	4-Punkt Untergruppe	 comprising superposed layers separated by air or other fluid
H04R 7/10	4-Punkt Untergruppe	 comprising superposed layers in contact
H04R 7/12	2-Punkt Untergruppe	. . Non-planar diaphragms or cones
H04R 7/14	3-Punkt Untergruppe	. . . corrugated, pleated, or ribbed
H04R 7/16	1-Punkt Untergruppe	. Mounting or tensioning of diaphragms or cones
H04R 7/18	2-Punkt Untergruppe	. . at the periphery
H04R 7/20	3-Punkt Untergruppe	. . . Securing diaphragm or cone resiliently to support by flexible material, springs, cords, or strands
H04R 7/22	3-Punkt Untergruppe	. . . Clamping rim of diaphragm or cone against seating
H04R 7/24	2-Punkt Untergruppe	. . Tensioning by means acting directly on free portion of diaphragm or cone
H04R 7/26	1-Punkt Untergruppe	. Damping by means acting directly on free portion of diaphragm or cone (air damping H04R 1/28)
H04R 9/00	Hauptgruppe	Transducers of moving-coil, moving-strip, or moving-wire type
H04R 9/02	1-Punkt Untergruppe	. Details

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H04R 9/04	2-Punkt Untergruppe	. . Construction, mounting, or centering of coil
H04R 9/06	1-Punkt Untergruppe	. Loud-speakers
H04R 9/08	1-Punkt Untergruppe	. Microphones
H04R 9/10	1-Punkt Untergruppe	. Telephone receivers
H04R 9/12	1-Punkt Untergruppe	. Gramophone pick-ups using a stylus; Recorders using a stylus
H04R 9/14	2-Punkt Untergruppe	. . comprising two or more styli or transducers (H04R 9/16 takes precedence)
H04R 9/16	2-Punkt Untergruppe	. . signals being recorded or played-back by vibration of a stylus in two orthogonal directions simultaneously
H04R 9/18	1-Punkt Untergruppe	. Resonant transducers, i.e. adapted to produce maximum output at a predetermined frequency
H04R 11/00	Hauptgruppe	Transducers of moving-armature or moving-core type (acoustic diaphragm of magnetisable material directly co-acting with electromagnet H04R 13/00)
H04R 11/02	1-Punkt Untergruppe	. Loud-speakers
H04R 11/04	1-Punkt Untergruppe	. Microphones
H04R 11/06	1-Punkt Untergruppe	. Telephone receivers
H04R 11/08	1-Punkt Untergruppe	. Gramophone pick-ups using a stylus; Recorders using a stylus
H04R 11/10	2-Punkt Untergruppe	. . comprising two or more styli or transducers (H04R 11/12 takes precedence)
H04R 11/12	2-Punkt Untergruppe	. . signals being recorded or played-back by vibration of a stylus in two orthogonal directions simultaneously
H04R 11/14	1-Punkt Untergruppe	. Resonant transducers, i.e. adapted to produce maximum output at a predetermined frequency
H04R 13/00	Hauptgruppe	Transducers having an acoustic diaphragm of magnetisable material directly co-acting with electromagnet
H04R 13/02	1-Punkt Untergruppe	. Telephone receivers
H04R 15/00	Hauptgruppe	Magnetostrictive transducers (magnetostrictive elements in general H01L 41/00)
H04R 15/02	1-Punkt Untergruppe	. Resonant transducers, i.e. adapted to produce maximum output at a predetermined frequency
H04R 17/00	Hauptgruppe	Piezo-electric transducers; Electrostrictive transducers (piezo-electric or electrostrictive elements in general H01L 41/00; details of piezo-electric or electrostrictive motors, generators or positioners H02N 2/00)
H04R 17/02	1-Punkt Untergruppe	. Microphones
H04R 17/04	1-Punkt Untergruppe	. Gramophone pick-ups using a stylus; Recorders using a stylus
H04R 17/06	2-Punkt Untergruppe	. . comprising two or more styli or transducers (H04R 17/08 takes precedence)
H04R 17/08	2-Punkt Untergruppe	. . signals being recorded or played-back by vibration of a stylus in two orthogonal directions simultaneously
H04R 17/10	1-Punkt Untergruppe	. Resonant transducers, i.e. adapted to produce maximum output at a predetermined frequency
H04R 19/00	Hauptgruppe	Electrostatic transducers
H04R 19/01	1-Punkt Untergruppe	. characterised by the use of electrets [3]
H04R 19/02	1-Punkt Untergruppe	. Loud-speakers (H04R 19/01 takes precedence) [3]
H04R 19/04	1-Punkt Untergruppe	. Microphones (H04R 19/01 takes precedence) [3]
H04R 19/06	1-Punkt Untergruppe	. Gramophone pick-ups using a stylus; Recorders using a stylus (H04R 19/01 takes precedence) [3]
H04R 19/08	2-Punkt Untergruppe	. . comprising two or more styli or transducers (H04R 19/10 takes precedence)

Symbol	Typ	Titel
H04R 19/10	2-Punkt Untergruppe	. . signals being recorded or played-back by vibration of a stylus in two orthogonal directions simultaneously
H04R 21/00	Hauptgruppe	Variable-resistance transducers (gaseous-resistance transducers H04R 23/00; magneto-resistive transducers H04R 23/00)
H04R 21/02	1-Punkt Untergruppe	. Microphones
H04R 21/04	1-Punkt Untergruppe	. Gramophone pick-ups using a stylus; Recorders using a stylus
H04R 23/00	Hauptgruppe	Transducers other than those covered by groups H04R 9/00 to H04R 21/00
H04R 23/02	1-Punkt Untergruppe	. Transducers using more than one principle simultaneously
H04R 25/00	Hauptgruppe	Deaf-aid sets (constructions of transducers per se H04R 9/00 to H04R 23/00; structural combination with spectacle frames G02C 11/06; processing of speech signals G10L 21/00)
H04R 25/02	1-Punkt Untergruppe	. adapted to be supported entirely by ear
H04R 25/04	1-Punkt Untergruppe	. comprising pocket amplifiers
H04R 27/00	Hauptgruppe	Public address systems (circuits for preventing acoustic reaction H04R 3/02; circuits for distributing signals to loud-speakers H04R 3/12; amplifiers H03F)
H04R 27/02	1-Punkt Untergruppe	. Amplifying systems for the deaf
H04R 27/04	1-Punkt Untergruppe	. Electric megaphones
H04R 29/00	Hauptgruppe	Monitoring arrangements; Testing arrangements
H04R 31/00	Hauptgruppe	Apparatus or processes specially adapted for the manufacture of transducers or diaphragms therefor (processes or apparatus specially adapted for the manufacture of micro-structural devices or systems, e.g. in combination with electrical devices, B81C)