

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G01 MEASURING; TESTING (NOTES omitted)

G01H MEASUREMENT OF MECHANICAL VIBRATIONS OR ULTRASONIC, SONIC OR INFRASONIC WAVES (generation of mechanical vibrations without measurement [B06B](#), [G10K](#); measuring position, direction or velocity of an object [G01C](#), [G01S](#); measuring quasi-steady pressure of a fluid [G01L 7/00](#); determining unbalance [G01M 1/14](#); determining properties of material by sonic or ultrasonic waves transmitted therethrough [G01N](#); systems using the reflection or reradiation of acoustic waves, e.g. acoustic imaging, [G01S 15/00](#); seismology, seismic prospecting, acoustic prospecting [G01V 1/00](#); acousto-optical devices [per se](#) [G02F](#); obtaining records by techniques analogous to photography using ultrasonic, sonic or infrasonic waves [G03B 42/06](#); speech analysis or synthesis, speech recognition [G10L](#); information storage based on relative movement between record carrier and transducer [G11B](#); piezo-electric, electrostrictive or magnetostrictive elements in general [H01L](#); manufacture of electromechanical resonators by processes which include measurement of frequency with consequential modification of the resonator [H03H 3/00](#), {[H03H 3/007](#), [H03H 9/00](#)})

NOTES

1. This subclass covers the combination of generation and measurement of mechanical vibrations.
2. Attention is drawn to the Notes following the title of class [G01](#).

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Measuring {characteristics of} vibrations in solids by using direct conduction to the detector (G01H 9/00 , G01H 11/00 take precedence)	3/08	. . Analysing frequencies present in complex vibrations, e.g. comparing harmonics present { acoustic presence detection G01V 1/001 }
1/003	. {of rotating machines (G01H 1/10 takes precedence)}	3/10	. Amplitude; Power
1/006	. . {of the rotor of turbo machines}	3/12	. . by electric means (G01H 3/14 takes precedence)
1/04	. of vibrations which are transverse to direction of propagation	3/125	. . . {for representing acoustic field distribution (using optical means G01H 9/002 ; sonar systems for imaging G01S 7/56 , G01S 15/89 ; acoustic holography G03H 3/00)}
1/06	. . Frequency	3/14	. . Measuring mean amplitude; Measuring mean power; Measuring time integral of power
1/08	. . Amplitude	5/00	Measuring propagation velocity of ultrasonic, sonic or infrasonic waves {, e.g. of pressure waves}
1/10	. of torsional vibrations	7/00	Measuring reverberation time; {Room acoustic measurements} (measuring absorption of vibrations in a material G01N ; modifying acoustic properties to change reverberation time G10K)
1/12	. of longitudinal or not specified vibrations	9/00	Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by using radiation-sensitive means, e.g. optical means
1/14	. . Frequency	9/002	. {for representing acoustic field distribution (sonar systems for imaging G01S 7/56 , G01S 15/89 ; acoustic holography G03H 3/00)}
1/16	. . Amplitude		
3/00	Measuring {characteristics of} vibrations by using a detector in a fluid (G01H 7/00 , G01H 9/00 , G01H 11/00 take precedence)		
3/005	. {Testing or calibrating of detectors covered by the subgroups of G01H 3/00 (calibrating geophysical instruments, e.g. seismic receivers G01V 13/00)}		
3/04	. Frequency		
3/06	. . by electric means		

G01H

- 9/004 . {using fibre optic sensors (light guides [per se](#) [G02B 6/00](#), acousto-optical devices specially adapted for gating or modulating in optical wave guides [G02F 1/125](#))}
- 9/006 . . {the vibrations causing a variation in the relative position of the end of a fibre and another element}
- 9/008 . {by using ultrasonic waves (measuring position using ultrasonic waves [G01S 15/02](#))}
- 11/00** **Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by detecting changes in electric or magnetic properties {, e.g. capacitance or reluctance (structural combination of musical instruments with microphones or other pick-up devices [G10H 3/16](#), [G10H 3/18](#), [G10H 3/20](#))}**
- 11/02 . by magnetic means, e.g. reluctance
- 11/04 . . using magnetostrictive devices
- 11/06 . by electric means
- 11/08 . . using piezo-electric devices
- 13/00** **Measuring resonant frequency**
- 15/00** **Measuring mechanical or acoustic impedance**
- 17/00** **Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves, not provided for in the preceding groups {(see provisionally also [G01H 1/00](#))}**