

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

## G01 MEASURING (counting [G06M](#)); 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](#).

<b>1/00</b>	<b>Measuring {characteristics of} vibrations in solids by using direct conduction to the detector</b> ( <a href="#">G01H</a> 9/00, <a href="#">G01H</a> 11/00 take precedence)	<b>3/125</b>	. . . {for representing acoustic field distribution (using optical means <a href="#">G01H</a> 9/002; sonar systems for imaging <a href="#">G01S</a> 7/56, <a href="#">G01S</a> 15/89; acoustic holography <a href="#">G03H</a> 3/00)}
1/003	. {of rotating machines ( <a href="#">G01H</a> 1/10 takes precedence)}	<b>3/14</b>	. . Measuring mean amplitude; Measuring mean power; Measuring time integral of power
1/006	. . {of the rotor of turbo machines}	<b>5/00</b>	<b>Measuring propagation velocity of ultrasonic, sonic or infrasonic waves {, e.g. of pressure waves}</b>
1/04	. of vibrations which are transverse to direction of propagation	<b>7/00</b>	<b>Measuring reverberation time; {Room acoustic measurements}</b> (measuring absorption of vibrations in a material <a href="#">G01N</a> ; modifying acoustic properties to change reverberation time <a href="#">G10K</a> )
1/06	. . Frequency	<b>9/00</b>	<b>Measuring mechanical vibrations or ultrasonic, sonic or infrasonic waves by using radiation-sensitive means, e.g. optical means</b>
1/08	. . Amplitude	9/002	. {for representing acoustic field distribution (sonar systems for imaging <a href="#">G01S</a> 7/56, <a href="#">G01S</a> 15/89; acoustic holography <a href="#">G03H</a> 3/00)}
1/10	. of torsional vibrations	9/004	. {using fibre optic sensors (light guides <a href="#">per se</a> <a href="#">G02B</a> 6/00, acousto-optical devices specially adapted for gating or modulating in optical wave guides <a href="#">G02F</a> 1/125)}
1/12	. of longitudinal or not specified vibrations	9/006	. . {the vibrations causing a variation in the relative position of the end of a fibre and another element}
1/14	. . Frequency	9/008	. {by using ultrasonic waves (measuring position using ultrasonic waves <a href="#">G01S</a> 15/02)}
1/16	. . Amplitude		
<b>3/00</b>	<b>Measuring {characteristics of} vibrations by using a detector in a fluid</b> ( <a href="#">G01H</a> 7/00, <a href="#">G01H</a> 9/00, <a href="#">G01H</a> 11/00 take precedence)		
3/005	. {Testing or calibrating of detectors covered by the subgroups of <a href="#">G01H</a> 3/00 (calibrating geophysical instruments, e.g. seismic receivers <a href="#">G01V</a> 13/00)}		
3/04	. Frequency		
3/06	. . by electric means		
3/08	. . Analysing frequencies present in complex vibrations, e.g. comparing harmonics present {(acoustic presence detection <a href="#">G01V</a> 1/001)}		
3/10	. Amplitude; Power		
3/12	. . by electric means ( <a href="#">G01H</a> 3/14 takes precedence)		

## G01H

- 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](#))}