

# 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.

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