EUROPEAN PATENT OFFICE U.S. PATENT AND TRADEMARK OFFICE

$CPC\,NOTICE\,OF\,CHANGES\,1592$

DATE: JANUARY 1, 2024

PROJECT MP12204

The following classification changes will be effected by this Notice of Changes:

Action	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Notes Modified:	G01B	21/00
DEFINITIONS:		
Definitions Modified:	G01B	SUBCLASS

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following:

1. CLASSIFICATION SCHEME CHANGES



B. New, Modified or Deleted Warning(s)



- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)
- 3. REVISION CONCORDANCE LIST (RCL)
- 4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
- 5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

C. New, Modified or Deleted Note(s)

SUBCLASS G01B - MEASURING LENGTH, THICKNESS OR SIMILAR LINEAR DIMENSIONS; MEASURING ANGLES; MEASURING AREAS; MEASURING IRREGULARITIES OF SURFACES OR CONTOURS

<u>Type</u> *	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
М	G01B21/00	Measuring a rrangements or details thereof covered by two or more of groups G01B 3/00 - G01B 17/00 are classified in this group if no single other group can be selected as being predominantly applicable.	{Measuring arrangements or details thereof covered by two or more of groups G01B 3/00 - G01B 17/00 are classified in this group if no single other group can be selected as being predominantly applicable.}

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

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2. A. DEFINITIONS (Modified)

G01B

Definition statement

<u>Replace</u>: The existing Definition statement with the following content.

This place covers:

Instruments and methods for measuring:

- linear dimensions of objects such as length, thickness, width, height, depth, diameter, coordinates of points of objects, distance or clearance between spaced objects or spaced apertures;
- angles or tapers;
- alignment of axes;
- areas;
- contours, curvatures or profiles;
- roughness or irregularities of surfaces;
- deformation in a solid.

Methods of measuring geometrical parameters of objects (e.g. shape or surface configuration, measurement of volume, coordinates, height, length, width, thickness, contours, surface roughness or evenness, diameters, roundness, eccentricity, angles, alignment, deformation, displacement), devices for carrying out these methods and related calibration aspects.

Classification within G01B into the main groups is to a large extent based on the underlying measurement principle:

Optical	G01B 11/00
Using fluid	G01B 13/00
Use of radiation	G01B 15/00
Use of subsonic, sonic or ultrasonic vibrations	G01B 17/00

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If no particular measurement principle prevails or if more than one of the above-mentioned underlying measurement principles equally apply	G01B 21/00
Mechanical	G01B 3/00, G01B 5/00
Electric or magnetic	G01B 7/00

An exception is G01B1/00, where documents should be classified which have aspects related to the material selected for the geometrical parameter measuring instrument.

Another exception is G01B9/00, which is a hardware group mainly containing interferometers. Only when a distance or displacement measurement is concerned (or a related measurement, such as an orientation measurement based on distance measurements to various locations on the object), then an interferometer should be classified in G01B9/00.

Small, hand-held mechanical devices (such as those available in hardware stores) are classified in G01B3/00, whereas large mechanical set-ups (industrial machines, such as coordinate measuring machines) are classified in G01B5/00.

To further support the user in consulting the main groups of this subclass, the following table summarises the properties of the electromagnetic spectrum together with the potentially relevant main groups.

Electromagnetic spectrum				Main groups
Radiation	Wavelength (m)	Frequency (Hz)	Energy (eV)	
Gamma rays	< 0.01 nm	> 30 EHz	> 124 keV	G01B 15/00
X-rays	0.01 nm – 10 nm	30 EHz – 30 PHz	124 keV – 124 eV	G01B 15/00
Extreme Ultraviolet [EUV]	10 nm – 100 nm	30 PHz – 3 PHz	124 eV – 12.4 eV	G01B 9/00, G01B 11/00, G01B 15/00
Ultraviolet	100 nm – 390 nm	3 PHz – 770 THz	12.4 eV – 3.2 eV	G01B 9/00, G01B 11/00

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Visible light	390 nm –	770 THz –	3.2 eV – 1.7	G01B 9/00,
	750 nm	400 THz	eV	G01B 11/00
Infrared	750 nm –	400 THz – 3	1.7 eV –	G01B 9/00,
	100 µm	THz	12.4 meV	G01B 11/00
Sub-millimetre wave (i.e. terahertz wave or waveband within Infrared)	100 µm - 1 mm	3 THz - 300 GHz	12.4 meV – 1.24 meV	G01B 9/00, G01B 11/00, G01B 15/00
Microwave	1 mm – 1 m	300 GHz – 300 MHz	1.24 meV – 1.24 µeV	G01B 15/00
Radio	1 m – 100	300 MHz –	1.24 µeV –	G01B 7/00,
	km	3 kHz	12.4 peV	G01B 15/00

References

Application-oriented references

Insert: The following new Application-oriented references section.

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Measuring human body, see the relevant places, where	A41H 1/00,
such exist, e.g.	A43D 1/02,
	A61B 5/103
Measuring appliances combined with walking-sticks	A45B 3/08
Measuring methods or devices specially adapted for metal-	B21B 38/00
rolling mills	
Measuring, gauging or adjusting equipment for machines	B23B 25/06
for working metal or other material	
Measuring or gauging equipment specially adapted for	B24B 33/06,
grinding or polishing operations	B24B 49/00
Combinations of measuring devices with writing-	B43K 29/08
implements	

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Devices for metering predetermined lengths of running material	B65H 61/00
Measuring devices for spinning or twisting machines	D01H 13/32
Measuring devices for determining the length of threads in sewing machines	D05B 45/00
Devices for checking, measuring, recording existing surfacing of roads or like structures, e.g. profilographs	E01C 23/01
Measuring diameter of boreholes or wells	E21B 47/08
Geodetical, nautical or aeronautical measuring, surveying, rangefinding	G01C
Photogrammetry or videogrammetry	G01C 11/00
Investigating or analysing particle size, investigating or analysing surface area of porous material	G01N 15/00
Radio direction-finding, determining distance or velocity by use of propagation effects, e.g. Doppler effect, propagation time, of radio waves, analogous arrangements using other waves	G01S
Measuring length or roll diameter of film in cameras or projectors	G03B 1/60
Methods or arrangements for converting the position of a manually-operated writing or tracing member into an electrical signal	G06K 11/00
Measuring elapsed travel of recording medium in recording or playback equipment, sensing diameter of record in autochange gramophones	G11B
Means structurally associated with electric rotary current collectors for indicating brush wear	H01R 39/58
Indicating consumption of electrodes in arc lamps	H05B 31/34

Informative references

<u>Replace</u>: The existing Informative references with the following content.

Attention is drawn to the following places, which may be of interest for search:

Human body, dentistry	A61B, A61C
Ball games	A63B
Sorting according to dimensions	B07
Gears	B23F
Machine tools	B23Q

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Robotics	B25J
Writing, drawing	B43K, B43L
Vehicles	B60,B61
Micromechanical devices (MEMS)	B81B, B81C
Nanotechnology	B82B, B82Y
Yarns	D01H
Marking textile materials; Marking in combination with	D06H 1/00
metering or inspection	
Paper webs, currency	D21F,
	G07D7/00
Building	E04D, E04F,
	E04G
Measuring in boreholes or wells	E21B47/00
Turbines	F01D
Bearings	F16C
Pigs, moles	F16L55/00
Range finders, inclinometers, photogrammetry, surveying,	G01C3/00,
gyroscopes	G01C9/00,
	G01C11/00,
	G01C13/00,
	G01C15/00,
	G01C19/00
Transducers not specially adapted for a specific variable	G01D5/00
Measuring volume flow or level of fluids or fluent solid	G01F
material	
Methods or apparatus for determining the capacity of	G01F 17/00
containers or cavities, or the volume of solid bodies	
Spectroscopy	G01J
Measuring force, stress, torque, pressure	G01L
Measuring force or stress, in general	G01L 1/00
Testing static or dynamic balance of machines or	G01M
structures; Testing structures or apparatus not otherwise	
provided for	
Investigating/analysing	G01N
Optical coherence tomography (OCT)	G01N21/00,
	A61B3/00,
	A61B5/00
Speed, acceleration	G01P
Investigating or analysing surface structures in atomic	G01Q
ranges using scanning-probe techniques	
Measuring electric or magnetic variables	G01R
Trackers	G01S

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Radio-direction finding, determining distance or velocity	G01S
Geophysical measuring	G01V
Optical elements	G02B
Scales (e.g. Vernier)	G02B27/00,
	G06G1/00,
	G01D5/00,
	G01D13/00
Spectacle frames	G02C13/00
Cameras	G03B, H04N
Lithography (including interferometric stage position	G03F7/00
measurement)	
Holography	G03H
Combination of measuring devices with means for	G05
controlling or regulating	
Numerical control	G05B19/00
Joysticks	G05G9/00
Computer input devices (such as mice, touch pads)	G06F3/00
Hand-manipulated analogue computing devices	G06G 1/00
Commerce	G06Q
Image analysis	G06T7/00
Electron/ion microscopes	H01J37/00
Wafers and semiconductors	H01L21/00,
	H01L31/00
Interferometer aspects not relating to distance or	H04B10/00,
displacement measurements (e.g. signal modulation)	H04L27/00,
	G02F1/00

Special rules of classification

<u>Replace</u>: The existing Special rules of classification with the following content.

In this subclass, the groups are distinguished by the technique of measurement which is of major importance. Thus the mere application of other techniques or means for giving a final indication does not affect the classification.

Machines operated on similar principles to the hand-held devices specified in this subclass are classified with these devices.

One or more G01B3/00 breakdown Indexing Codes should be given when information is concerned which is more detailed than the corresponding G01B3/00 or when assigning

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a G01B3/00 is not appropriate (i.e. in cases where the geometrical measurement information is only of additional nature).

At least one G01B2210/00 Indexing Code is compulsory for wheel alignment (G01B2210/10), calliper-like sensors (G01B2210/40) as well as in the following cases:

Using chromatic effects to achieve wavelength-dependent depth resolution	G01B 2210/50
Combining partially overlapping images to an overall image	G01B 2210/52
Measuring geometric parameters of semiconductor structures, such as for example profile, critical dimensions (CD) or trench depth	G01B 2210/56
Wireless transmission of information between a sensor or probe and a control or evaluation unit	G01B 2210/58
Unique sensor ID to enable sensors to be recognised and appropriate amplification or error compensation or calibration curves etc. to be used (e.g. by resistor value across connector terminals)	G01B 2210/60

Glossary of terms

<u>Replace</u>: The existing Glossary of terms table with the following updated table.

In this place, the following terms or expressions are used with the meaning indicated:

are relevant if the outcome of a measurement depends on the actual value of a physical quantity characterising the propagation of the wave, i.e. its wavelength, frequency, velocity, or phase. The mere presence or direction of a wave are not considered a propagation effect or to contribute to a propagation effect. To put it in another way, propagation effects are irrelevant, if the radiation may be looked upon as a beam of radiation whose wave nature can be ignored. Examples of measurements where propagation effects are relevant include, e.g. measurements of propagation time, phase difference, phase delay,
measurements using the Doppler effect or interference.

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Measuring areas	quantifying, by measurement, the size of areas (not: the act of measuring in certain spatial regions or the spatial regions where measurements are taken)
Irregularities of surfaces	smaller-scale surface textures
Contour	envelope-like description of (part of) the shape of an object