

Symbol	Typ	Titel
<b>G</b>	<b>Sektion</b>	<b>SECTION G — PHYSICS</b>
<b>G02</b>	<b>Klasse</b>	<b>OPTICS (making optical elements or apparatus B24B, B29D 11/00, C03, or other appropriate subclasses or classes; materials <u>per se</u>, <u>see</u> the relevant places, e.g. C03B, C03C)</b>
<b>G02B</b>	<b>Unterklasse</b>	<b>OPTICAL ELEMENTS, SYSTEMS, OR APPARATUS (G02F takes precedence; optical elements specially adapted for use in lighting devices or systems thereof F21V 1/00-F21V 13/00; measuring-instruments, <u>see</u> the relevant subclass of class G01, e.g. optical rangefinders G01C; testing of optical elements, systems, or apparatus G01M 11/00; spectacles G02C; apparatus or arrangements for taking photographs or for projecting or viewing them G03B; sound lenses G10K 11/30; electron and ion "optics" H01J; X-ray "optics" H01J, H05G 1/00; optical elements structurally combined with electric discharge tubes H01J 5/16, H01J 29/89, H01J 37/22; microwave "optics" H01Q; combination of optical elements with television receivers H04N 5/72; optical systems or arrangements in colour television systems H04N 9/00; heating arrangements specially adapted for transparent or reflecting areas H05B 3/84) [1, 7]</b>
<b>G02B 1/00</b>	<b>Hauptgruppe</b>	<b>Optical elements characterised by the material of which they are made (compositions of optical glasses C03C 3/00); Optical coatings for optical elements</b>
G02B 1/02	1-Punkt Untergruppe	. made of crystals, e.g. rock-salt, semiconductors (G02B 1/08 takes precedence)
G02B 1/04	1-Punkt Untergruppe	. made of organic materials, e.g. plastics (G02B 1/08 takes precedence)
G02B 1/06	1-Punkt Untergruppe	. made of fluids in transparent cells
G02B 1/08	1-Punkt Untergruppe	. made of polarising materials
G02B 1/10	1-Punkt Untergruppe	. Optical coatings produced by application to, or surface treatment of, optical elements (G02B 1/08 takes precedence)
G02B 1/11	2-Punkt Untergruppe	. . Anti-reflection coatings [6]
G02B 1/12	2-Punkt Untergruppe	. . by surface treatment, e.g. by irradiation
<b>G02B 3/00</b>	<b>Hauptgruppe</b>	<b>Simple or compound lenses (artificial eyes A61F 2/14; spectacle lenses or contact lenses for the eyes G02C; watch or clock glasses G04B 39/00)</b>
G02B 3/02	1-Punkt Untergruppe	. with non-spherical faces (G02B 3/10 takes precedence)
G02B 3/04	2-Punkt Untergruppe	. . with continuous faces that are rotationally symmetrical but deviate from a true sphere
G02B 3/06	2-Punkt Untergruppe	. . with cylindrical or toric faces
G02B 3/08	2-Punkt Untergruppe	. . with discontinuous faces, e.g. Fresnel lens
G02B 3/10	1-Punkt Untergruppe	. Bifocal lenses; Multifocal lenses
G02B 3/12	1-Punkt Untergruppe	. Fluid-filled or evacuated lenses
G02B 3/14	2-Punkt Untergruppe	. . of variable focal length
<b>G02B 5/00</b>	<b>Hauptgruppe</b>	<b>Optical elements other than lenses (light guides G02B 6/00; optical logic elements G02F 3/00) [4]</b>
G02B 5/02	1-Punkt Untergruppe	. Diffusing elements; Afocal elements
G02B 5/04	1-Punkt Untergruppe	. Prisms
G02B 5/06	2-Punkt Untergruppe	. . Fluid-filled or evacuated prisms
G02B 5/08	1-Punkt Untergruppe	. Mirrors

Symbol	Typ	Titel
G02B 5/09	2-Punkt Untergruppe	. . Multifaceted or polygonal mirrors [6]
G02B 5/10	2-Punkt Untergruppe	. . with curved faces
G02B 5/12	1-Punkt Untergruppe	. Reflex reflectors
G02B 5/122	2-Punkt Untergruppe	. . cube corner, trihedral or triple reflector type [2]
G02B 5/124	3-Punkt Untergruppe	. . . plural reflecting elements forming part of a unitary plate or sheet [2]
G02B 5/126	2-Punkt Untergruppe	. . including curved refracting surface [2]
G02B 5/128	3-Punkt Untergruppe	. . . transparent spheres being embedded in matrix [2]
G02B 5/13	3-Punkt Untergruppe	. . . plural curved refracting elements forming part of a unitary body [2]
G02B 5/132	3-Punkt Untergruppe	. . . with individual reflector mounting means [2]
G02B 5/134	4-Punkt Untergruppe	. . . . including a threaded mounting member [2]
G02B 5/136	2-Punkt Untergruppe	. . plural reflecting elements forming part of a unitary body (G02B 5/124 takes precedence) [2]
G02B 5/18	1-Punkt Untergruppe	. Diffracting gratings
G02B 5/20	1-Punkt Untergruppe	. Filters (polarising elements G02B 5/30; filters specially adapted for photographic purposes G03B 11/00)
G02B 5/22	2-Punkt Untergruppe	. . Absorbing filters
G02B 5/23	3-Punkt Untergruppe	. . . Photochromic filters [2]
G02B 5/24	3-Punkt Untergruppe	. . . Liquid filters (G02B 5/23 takes precedence) [2]
G02B 5/26	2-Punkt Untergruppe	. . Reflecting filters (G02B 5/28 takes precedence)
G02B 5/28	2-Punkt Untergruppe	. . Interference filters
G02B 5/30	1-Punkt Untergruppe	. Polarising elements (light-modulating devices G02F 1/00)
G02B 5/32	1-Punkt Untergruppe	. Holograms used as optical elements (processes or apparatus for producing holograms G03H) [2]
<b>G02B 6/00</b>	<b>Hauptgruppe</b>	<b>Light guides; Structural details of arrangements comprising light guides and other optical elements, e.g. couplings [4, 6]</b>
<i>G02B 6/02</i>	<i>1-Punkt Untergruppe</i>	<i>. Optical fibre with cladding ( mechanical structures for providing tensile strength and external protection G02B 6/44 ) [4, 2006.01]</i>
<i>G02B 6/024</i>	<i>2-Punkt Untergruppe</i>	<i>. . with polarisation-maintaining properties [2006.01]</i>
<i>G02B 6/028</i>	<i>2-Punkt Untergruppe</i>	<i>. . with core or cladding having graded refractive index [2006.01]</i>
<i>G02B 6/032</i>	<i>2-Punkt Untergruppe</i>	<i>. . with non-solid core or cladding [2006.01]</i>
<i>G02B 6/036</i>	<i>2-Punkt Untergruppe</i>	<i>. . core or cladding comprising multiple layers [2006.01]</i>
G02B 6/04	1-Punkt Untergruppe	. formed by bundles of fibres (G02B 6/24 takes precedence) [4]
G02B 6/06	2-Punkt Untergruppe	. . the relative position of the fibres being the same at both ends, e.g. for transporting images [4]
G02B 6/08	3-Punkt Untergruppe	. . . with fibre bundle in form of plate [4]

Symbol	Typ	Titel
G02B 6/10	1-Punkt Untergruppe	. of the optical waveguide type ( G02B 6/02 , G02B 6/24 take precedence ; devices or arrangements for the control of light by electric, magnetic, electro-magnetic or acoustic means G02F 1/00 ; transferring the modulation of modulated light G02F 2/00 ; optical logic elements G02F 3/00 ; optical analogue/digital converters G02F 7/00 ; stores using opto-electronic devices G11C 11/42 ; electric waveguides H01P ; transmission of information by optical means H04B 10/00 ; multiplex systems H04J 14/00 ) [4, 2006.01]
G02B 6/12	2-Punkt Untergruppe	. . of the integrated circuit kind (production or processing of single crystals C30B; electric integrated circuits H01L 27/00) [4]
G02B 6/122	3-Punkt Untergruppe	. . . Basic optical elements, e.g. light-guiding paths [6]
G02B 6/124	4-Punkt Untergruppe	. . . . Geodesic lenses or integrated gratings [6]
G02B 6/125	4-Punkt Untergruppe	. . . . Bends, branchings or intersections [6]
G02B 6/126	3-Punkt Untergruppe	. . . using polarisation effects [6]
G02B 6/13	3-Punkt Untergruppe	. . . Integrated optical circuits characterised by the manufacturing method [6]
G02B 6/132	4-Punkt Untergruppe	. . . . by deposition of thin films [6]
G02B 6/134	4-Punkt Untergruppe	. . . . by substitution by dopant atoms [6]
G02B 6/136	4-Punkt Untergruppe	. . . . by etching [6]
G02B 6/138	4-Punkt Untergruppe	. . . . by using polymerisation [6]
G02B 6/14	2-Punkt Untergruppe	. . Mode converters [4]
G02B 6/16	Gelöscht	(covered by G02B 6/02)
G02B 6/17	Gelöscht	(transferred to G02B 6/024)
G02B 6/18	Gelöscht	(transferred to G02B 6/028)
G02B 6/20	Gelöscht	(transferred to G02B 6/032)
G02B 6/22	Gelöscht	(transferred to G02B 6/036)
G02B 6/24	1-Punkt Untergruppe	. Coupling light guides (for electric waveguides H01P 1/00) [4, 5]
G02B 6/245	2-Punkt Untergruppe	. . Removing protective coverings of light guides before coupling [5]
G02B 6/25	2-Punkt Untergruppe	. . Preparing the ends of light guides for coupling, e.g. cutting [5]
G02B 6/255	2-Punkt Untergruppe	. . Splicing of light guides, e.g. by fusion or bonding [5]
G02B 6/26	2-Punkt Untergruppe	. . Optical coupling means (G02B 6/36, G02B 6/42 take precedence) [4]
G02B 6/27	3-Punkt Untergruppe	. . . with polarisation selective and adjusting means (polarisation elements in general G02B 5/30; polarisation systems in general G02B 27/28; optical polarisation multiplex systems H04J 14/06) [6]
G02B 6/28	3-Punkt Untergruppe	. . . having data bus means, i.e. plural waveguides interconnected and providing an inherently bidirectional system by mixing and splitting signals [4]
G02B 6/287	4-Punkt Untergruppe	. . . . Structuring of light guides to shape optical elements with heat application (G02B 6/255 takes precedence) [6]
G02B 6/293	4-Punkt Untergruppe	. . . . with wavelength selective means (for optical elements in use, <u>see</u> the relevant subgroups of this subclass; optical wavelength-division multiplexing systems H04J 14/02) [6]
G02B 6/30	3-Punkt Untergruppe	. . . for use between fibre and thin-film device [4]
G02B 6/32	3-Punkt Untergruppe	. . . having lens focusing means [4]
G02B 6/34	3-Punkt Untergruppe	. . . utilising prism or grating [4]

Symbol	Typ	Titel
G02B 6/35	3-Punkt Untergruppe	. . . having switching means (optical switching in general G02B 26/08; by changing the optical properties of the medium G02F 1/00) [6]
G02B 6/36	2-Punkt Untergruppe	. . Mechanical coupling means (G02B 6/255, G02B 6/42 take precedence) [4, 5]
G02B 6/38	3-Punkt Untergruppe	. . . having fibre to fibre mating means [4]
G02B 6/40	3-Punkt Untergruppe	. . . having fibre bundle mating means [4]
G02B 6/42	2-Punkt Untergruppe	. . Coupling light guides with opto-electronic elements [4]
G02B 6/43	3-Punkt Untergruppe	. . . Arrangements comprising a plurality of opto-electronic elements and associated optical interconnections ( light-emissive or light-sensitive semiconductor devices H01L 27/00, H01L 31/00, H01L 33/00; semiconductor lasers monolithically integrated with other components H01S 5/026) [6]
G02B 6/44	1-Punkt Untergruppe	. Mechanical structures for providing tensile strength and external protection for fibres, e.g. optical transmission cables (cables incorporating electric conductors and optical fibres H01B 11/22) [4]
G02B 6/46	1-Punkt Untergruppe	. Processes or apparatus adapted for installing optical fibres or optical cables (installation of cables containing electric conductors and optical fibres H02G) [6]
G02B 6/48	2-Punkt Untergruppe	. . Overhead installation [6]
G02B 6/50	2-Punkt Untergruppe	. . Underground or underwater installation; Installation through tubing, conduits or ducts [6]
G02B 6/52	3-Punkt Untergruppe	. . . using fluid, e.g. air [6]
G02B 6/54	3-Punkt Untergruppe	. . . using mechanical means, e.g. pulling or pushing devices [6]
<b>G02B 7/00</b>	<b>Hauptgruppe</b>	<b>Mountings, adjusting means, or light-tight connections, for optical elements</b>
G02B 7/02	1-Punkt Untergruppe	. for lenses
G02B 7/04	2-Punkt Untergruppe	. . with mechanism for focusing or varying magnification [2]
G02B 7/06	3-Punkt Untergruppe	. . . Focusing binocular pairs
G02B 7/08	3-Punkt Untergruppe	. . . adapted to co-operate with a remote control mechanism
G02B 7/09	3-Punkt Untergruppe	. . . adapted for automatic focusing or varying magnification (automatic generation of focusing signals G02B 7/28) [5]
G02B 7/10	3-Punkt Untergruppe	. . . by relative axial movement of several lenses, e.g. of varifocal objective lens
G02B 7/105	4-Punkt Untergruppe	. . . . with movable lens means specially adapted for focusing at close distances [4]
G02B 7/12	2-Punkt Untergruppe	. . Adjusting pupillary distance of binocular pairs
G02B 7/14	2-Punkt Untergruppe	. . adapted to interchange lenses
G02B 7/16	3-Punkt Untergruppe	. . . Rotatable turrets
G02B 7/18	1-Punkt Untergruppe	. for prisms; for mirrors
G02B 7/182	2-Punkt Untergruppe	. . for mirrors (optical devices or arrangements using movable or deformable optical elements for controlling the intensity, colour, phase, polarisation or direction of light G02B 26/00) [5]
G02B 7/183	3-Punkt Untergruppe	. . . specially adapted for very large mirrors, e.g. for astronomy (G02B 7/185, G02B 7/192, G02B 7/198 take precedence) [6]
G02B 7/185	3-Punkt Untergruppe	. . . with means for adjusting the shape of the mirror surface (mirrors with curved faces G02B 5/10) [5]
G02B 7/188	4-Punkt Untergruppe	. . . . Membrane mirrors [5]

Symbol	Typ	Titel
G02B 7/192	3-Punkt Untergruppe	. . . with means for minimising internal mirror stresses [5]
G02B 7/195	4-Punkt Untergruppe	. . . . Fluid-cooled mirrors [5]
G02B 7/198	3-Punkt Untergruppe	. . . with means for adjusting the mirror relative to its support [5]
G02B 7/20	1-Punkt Untergruppe	. Light-tight connections for movable optical elements
G02B 7/22	2-Punkt Untergruppe	. . Extensible connections, e.g. bellows
G02B 7/24	2-Punkt Untergruppe	. . Pivoted connections
G02B 7/28	1-Punkt Untergruppe	. Systems for automatic generation of focusing signals (measuring distance <u>per se</u> G01C, G01S; using such signals to control focus of particular apparatus, <u>see</u> the subclasses for the apparatus, e.g. G03B, G03F) [5]
G02B 7/30	2-Punkt Untergruppe	. . using parallactic triangle with a base line [5]
G02B 7/32	3-Punkt Untergruppe	. . . using active means, e.g. light emitter [5]
G02B 7/34	2-Punkt Untergruppe	. . using different areas in a pupil plane [5]
G02B 7/36	2-Punkt Untergruppe	. . using image sharpness techniques [5]
G02B 7/38	3-Punkt Untergruppe	. . . measured at different points on the optical axis [5]
G02B 7/40	2-Punkt Untergruppe	. . using time delay of the reflected waves, e.g. of ultrasonic waves [5]
<b>G02B 9/00</b>	<b>Hauptgruppe</b>	<b>Optical objectives characterised both by the number of the components and their arrangements according to their sign, i.e. + or - (G02B 13/00, G02B 15/00 take precedence)</b>
G02B 9/02	1-Punkt Untergruppe	. having one + component only (simple lenses G02B 3/00)
G02B 9/04	1-Punkt Untergruppe	. having two components only
G02B 9/06	2-Punkt Untergruppe	. . two + components
G02B 9/08	3-Punkt Untergruppe	. . . arranged about a stop
G02B 9/10	2-Punkt Untergruppe	. . one + and one - component
G02B 9/12	1-Punkt Untergruppe	. having three components only
G02B 9/14	2-Punkt Untergruppe	. . arranged + - +
G02B 9/16	3-Punkt Untergruppe	. . . all the components being simple
G02B 9/18	3-Punkt Untergruppe	. . . only one component having a compound lens (G02B 9/30 takes precedence)
G02B 9/20	4-Punkt Untergruppe	. . . . the rear component having the compound
G02B 9/22	4-Punkt Untergruppe	. . . . the middle component having the compound
G02B 9/24	3-Punkt Untergruppe	. . . two of the components having compound lenses (G02B 9/30 takes precedence)
G02B 9/26	4-Punkt Untergruppe	. . . . the front and rear components having compound lenses
G02B 9/28	4-Punkt Untergruppe	. . . . the middle and rear components having compound lenses
G02B 9/30	3-Punkt Untergruppe	. . . the middle component being a - compound meniscus having a + lens
G02B 9/32	4-Punkt Untergruppe	. . . . the + lens being a meniscus
G02B 9/34	1-Punkt Untergruppe	. having four components only

Symbol	Typ	Titel
G02B 9/36	2-Punkt Untergruppe	. . arranged + -- +
G02B 9/38	3-Punkt Untergruppe	. . . both - components being meniscus
G02B 9/40	4-Punkt Untergruppe	. . . . one - component being compound
G02B 9/42	4-Punkt Untergruppe	. . . . two - components being compound
G02B 9/44	3-Punkt Untergruppe	. . . both - components being biconcave
G02B 9/46	4-Punkt Untergruppe	. . . . one - component being compound
G02B 9/48	4-Punkt Untergruppe	. . . . two - components being compound
G02B 9/50	3-Punkt Untergruppe	. . . both + components being meniscus
G02B 9/52	3-Punkt Untergruppe	. . . the rear + component being compound
G02B 9/54	3-Punkt Untergruppe	. . . the front + component being compound
G02B 9/56	3-Punkt Untergruppe	. . . all components being simple lenses
G02B 9/58	2-Punkt Untergruppe	. . arranged - + + -
G02B 9/60	1-Punkt Untergruppe	. having five components only
G02B 9/62	1-Punkt Untergruppe	. having six components only
G02B 9/64	1-Punkt Untergruppe	. having more than six components
<b>G02B 11/00</b>	<b>Hauptgruppe</b>	<b>Optical objectives characterised by the total number of simple and compound lenses forming the objective and their arrangement (G02B 9/00 takes precedence; having only one simple lens G02B 3/00)</b>
G02B 11/02	1-Punkt Untergruppe	. having two lenses only
G02B 11/04	2-Punkt Untergruppe	. . arranged C C
G02B 11/06	1-Punkt Untergruppe	. having three lenses only
G02B 11/08	2-Punkt Untergruppe	. . arranged L L L
G02B 11/10	2-Punkt Untergruppe	. . arranged L C L
G02B 11/12	2-Punkt Untergruppe	. . arranged L L C
G02B 11/14	2-Punkt Untergruppe	. . arranged C L C
G02B 11/16	2-Punkt Untergruppe	. . arranged C C L
G02B 11/18	2-Punkt Untergruppe	. . arranged C C C
G02B 11/20	1-Punkt Untergruppe	. having four lenses only
G02B 11/22	2-Punkt Untergruppe	. . arranged L L L L
G02B 11/24	2-Punkt Untergruppe	. . arranged C L L C
G02B 11/26	2-Punkt Untergruppe	. . arranged L C C L
G02B 11/28	2-Punkt Untergruppe	. . arranged C C C C
G02B 11/30	1-Punkt Untergruppe	. having five lenses only

Symbol	Typ	Titel
G02B 11/32	1-Punkt Untergruppe	. having six lenses only
G02B 11/34	1-Punkt Untergruppe	. having more than six lenses
<b>G02B 13/00</b>	<b>Hauptgruppe</b>	<b>Optical objectives specially designed for the purposes specified below (with variable magnification G02B 15/00)</b>
G02B 13/02	1-Punkt Untergruppe	. Telephoto objectives, i.e. systems of the type + - in which the distance from the front vertex to the image plane is less than the equivalent focal length
G02B 13/04	1-Punkt Untergruppe	. Reversed telephoto objectives
G02B 13/06	1-Punkt Untergruppe	. Panoramic objectives; So-called "sky lenses"
G02B 13/08	1-Punkt Untergruppe	. Anamorphic objectives
G02B 13/10	2-Punkt Untergruppe	. . involving prisms (G02B 13/12 takes precedence)
G02B 13/12	2-Punkt Untergruppe	. . with variable magnification
G02B 13/14	1-Punkt Untergruppe	. for use with infra-red or ultra-violet radiation (G02B 13/16 takes precedence)
G02B 13/16	1-Punkt Untergruppe	. for use in conjunction with image converters or intensifiers
G02B 13/18	1-Punkt Untergruppe	. with lenses having one or more non-spherical faces, e.g. for reducing geometrical aberration
G02B 13/20	1-Punkt Untergruppe	. Soft-focus objectives (diffusing elements in general G02B 5/02)
G02B 13/22	1-Punkt Untergruppe	. Telecentric objectives or lens systems
G02B 13/24	1-Punkt Untergruppe	. for reproducing or copying at short object distances
G02B 13/26	2-Punkt Untergruppe	. . for reproducing with unit magnification [3]
<b>G02B 15/00</b>	<b>Hauptgruppe</b>	<b>Optical objectives with means for varying the magnification (anamorphic objectives G02B 13/08)</b>
G02B 15/02	1-Punkt Untergruppe	. by changing, adding, or subtracting a part of the objective, e.g. convertible objective
G02B 15/04	2-Punkt Untergruppe	. . by changing a part
G02B 15/06	3-Punkt Untergruppe	. . . by changing the front part
G02B 15/08	3-Punkt Untergruppe	. . . by changing the rear part
G02B 15/10	2-Punkt Untergruppe	. . by adding a part, e.g. close-up attachment
G02B 15/12	3-Punkt Untergruppe	. . . by adding telescopic attachments (G02B 15/14 takes precedence)
G02B 15/14	1-Punkt Untergruppe	. by axial movement of one or more lenses or groups of lenses relative to the image plane for continuously varying the equivalent focal length of the objective [4]
G02B 15/15	2-Punkt Untergruppe	. . compensation by means of only one movement or by means of only linearly related movements, e.g. optical compensation [4]
G02B 15/16	2-Punkt Untergruppe	. . with interdependent non-linearly related movements between one lens or lens group, and another lens or lens group (G02B 15/22 takes precedence) [4]
G02B 15/163	3-Punkt Untergruppe	. . . having a first movable lens or lens group and a second movable lens or lens group, both in front of a fixed lens or lens group (G02B 15/177 takes precedence) [4]
G02B 15/167	4-Punkt Untergruppe	. . . . having an additional fixed front lens or group of lenses [4]
G02B 15/17	5-Punkt Untergruppe	. . . . . arranged + -- [4]

Symbol	Typ	Titel
G02B 15/173	5-Punkt Untergruppe	. . . . . arranged + - + [4]
G02B 15/177	3-Punkt Untergruppe	. . . having a negative front lens or group of lenses [4]
G02B 15/20	3-Punkt Untergruppe	. . . having an additional movable lens or lens group for varying the objective focal length [4]
G02B 15/22	2-Punkt Untergruppe	. . with movable lens means specially adapted for focusing at close distances [4]
G02B 15/24	3-Punkt Untergruppe	. . . having a front fixed lens or lens group and two movable lenses or lens groups in front of a fixed lens or lens group [4]
G02B 15/26	4-Punkt Untergruppe	. . . . . arranged + -- [4]
G02B 15/28	4-Punkt Untergruppe	. . . . . arranged + - + [4]
<b>G02B 17/00</b>	<b>Hauptgruppe</b>	<b>Systems with reflecting surfaces, with or without refracting elements (microscopes G02B 21/00; telescopes, periscopes G02B 23/00; beam shaping not otherwise provided for G02B 27/09; for beam splitting or combining G02B 27/10; for optical projection G02B 27/18) [6]</b>
G02B 17/02	1-Punkt Untergruppe	. Catoptric systems, e.g. image erecting and reversing system
G02B 17/04	2-Punkt Untergruppe	. . using prisms only
G02B 17/06	2-Punkt Untergruppe	. . using mirrors only
G02B 17/08	1-Punkt Untergruppe	. Catadioptric systems
<b>G02B 19/00</b>	<b>Hauptgruppe</b>	<b>Condensers (for microscopes G02B 21/08)</b>
<b>G02B 21/00</b>	<b>Hauptgruppe</b>	<b>Microscopes (eyepieces G02B 25/00; polarising systems G02B 27/28; measuring microscopes G01B 9/04; microtomes G01N 1/06; investigating or analysing surface structures in atomic ranges using scanning-probe techniques, e.g. techniques employing scanning tunnelling or scanning near-field optical microscopes G01N 13/10; details of scanning-probe apparatus, in general G12B 21/00) [1, 7]</b>
G02B 21/02	1-Punkt Untergruppe	. Objectives
G02B 21/04	2-Punkt Untergruppe	. . involving mirrors
G02B 21/06	1-Punkt Untergruppe	. Means for illuminating specimen
G02B 21/08	2-Punkt Untergruppe	. . Condensers
G02B 21/10	3-Punkt Untergruppe	. . . affording dark-field illumination (G02B 21/14 takes precedence)
G02B 21/12	3-Punkt Untergruppe	. . . affording bright-field illumination (G02B 21/14 takes precedence)
G02B 21/14	3-Punkt Untergruppe	. . . affording illumination for phase-contrast observation
G02B 21/16	1-Punkt Untergruppe	. adapted for ultra-violet illumination
G02B 21/18	1-Punkt Untergruppe	. Arrangements with more than one light-path, e.g. for comparing two specimens
G02B 21/20	2-Punkt Untergruppe	. . Binocular arrangements
G02B 21/22	3-Punkt Untergruppe	. . . Stereoscopic arrangements
G02B 21/24	1-Punkt Untergruppe	. Base structure
G02B 21/26	2-Punkt Untergruppe	. . Stages; Adjusting means therefor
G02B 21/28	2-Punkt Untergruppe	. . with cooling device
G02B 21/30	2-Punkt Untergruppe	. . with heating device
G02B 21/32	1-Punkt Untergruppe	. Micromanipulators structurally combined with microscopes

Symbol	Typ	Titel
G02B 21/33	1-Punkt Untergruppe	. Immersion oils [6]
G02B 21/34	1-Punkt Untergruppe	. Microscope slides, e.g. mounting specimens on microscope slides (preparing specimens for investigation G01N 1/28; means for supporting the objects or the materials to be analysed in electron microscopes H01J 37/20)
G02B 21/36	1-Punkt Untergruppe	. arranged for photographic purposes or projection purposes (G02B 21/18 takes precedence)
<b>G02B 23/00</b>	<b>Hauptgruppe</b>	<b>Telescopes, e.g. binoculars (measuring telescopes G01B 9/06); Periscopes; Instruments for viewing the inside of hollow bodies (diagnostic instruments A61B); Viewfinders (objectives G02B 9/00, G02B 11/00, G02B 15/00, G02B 17/00; eyepieces G02B 25/00); Optical aiming or sighting devices (non-optical aspects of weapon aiming or sighting devices F41G) [4]</b>
G02B 23/02	1-Punkt Untergruppe	. involving prisms or mirrors (G02B 23/14 takes precedence)
G02B 23/04	2-Punkt Untergruppe	. . for the purpose of beam splitting or combining, e.g. fitted with eyepieces for more than one observer ( G02B 23/10 takes precedence)
G02B 23/06	2-Punkt Untergruppe	. . having a focusing action, e.g. parabolic mirror
G02B 23/08	2-Punkt Untergruppe	. . Periscopes
G02B 23/10	2-Punkt Untergruppe	. . reflecting into the field of view additional indications, e.g. from collimator (collimators in general G02B 27/30; graticules G02B 27/34)
G02B 23/12	1-Punkt Untergruppe	. with means for image conversion or intensification (objectives for image conversion or intensification G02B 13/16; electrical image converters with optical input and optical output H01J 31/50)
G02B 23/14	1-Punkt Untergruppe	. Viewfinders (for photographic apparatus G03B 13/02)
G02B 23/16	1-Punkt Untergruppe	. Housings; Caps; Mountings; Supports, e.g. with counterweight (cases or receptacles A45C)
G02B 23/18	2-Punkt Untergruppe	. . for binocular arrangements
G02B 23/20	2-Punkt Untergruppe	. . Collapsible housings (G02B 23/18 takes precedence)
G02B 23/22	2-Punkt Untergruppe	. . Underwater equipments, e.g. for submarine periscope
G02B 23/24	1-Punkt Untergruppe	. Instruments for viewing the inside of hollow bodies, e.g. fibrescopes [4]
G02B 23/26	2-Punkt Untergruppe	. . using light guides [4]
<b>G02B 25/00</b>	<b>Hauptgruppe</b>	<b>Eyepieces; Magnifying glasses (simple lenses G02B 3/00)</b>
G02B 25/02	1-Punkt Untergruppe	. with means for illuminating object viewed
G02B 25/04	1-Punkt Untergruppe	. affording a wide-angle view, e.g. through a spy-hole
<b>G02B 26/00</b>	<b>Hauptgruppe</b>	<b>Optical devices or arrangements using movable or deformable optical elements for controlling the intensity, colour, phase, polarisation or direction of light, e.g. switching, gating, modulating ( mechanically operable parts of lighting devices for the control of light order F21V; specially adapted for measuring characteristics of light G01J; devices or arrangements, the optical operation of which is modified by changing the optical properties of the medium of the devices or arrangements G02F 1/00; control of light in general G05D 25/00; control of light sources H01S 3/10, H05B 37/00-H05B 43/00) [4]</b>
G02B 26/02	1-Punkt Untergruppe	. for controlling the intensity of light [4]
G02B 26/04	2-Punkt Untergruppe	. . by periodically varying the intensity of light, e.g. using choppers [4]
G02B 26/06	1-Punkt Untergruppe	. for controlling the phase of light (G02B 26/08 takes precedence) [4]
G02B 26/08	1-Punkt Untergruppe	. for controlling the direction of light (in light guides G02B 6/35) [4]

Symbol	Typ	Titel
G02B 26/10	2-Punkt Untergruppe	. . Scanning systems (for special applications, <u>see</u> the relevant places, e.g. G03B 27/32, G03F 3/08, G03G 15/04, G09G 3/00, H04N) [4]
G02B 26/12	3-Punkt Untergruppe	. . . using multifaceted mirrors [6]
<b>G02B 27/00</b>	<b>Hauptgruppe</b>	<b>Other optical systems; Other optical apparatus (means for bringing-about special optical effects in shop-windows, showcases A47F, e.g. A47F 11/06; optical toys A63H 33/22; designs or pictures characterised by special light effects B44F 1/00)</b>
G02B 27/01	1-Punkt Untergruppe	. Head-up displays [6]
G02B 27/02	1-Punkt Untergruppe	. Viewing or reading apparatus (stereoscopic systems G02B 27/22; of the projection type G03B; slide-changing apparatus G03B)
G02B 27/04	2-Punkt Untergruppe	. . having collapsible parts
G02B 27/06	2-Punkt Untergruppe	. . with moving-picture effect
G02B 27/08	2-Punkt Untergruppe	. . Kaleidoscopes
G02B 27/09	1-Punkt Untergruppe	. Beam shaping, e.g. changing the cross-sectioned area, not otherwise provided for [6]
G02B 27/10	1-Punkt Untergruppe	. Beam splitting or combining systems (mixing and splitting light signals using optical waveguides G02B 6/28; polarising systems G02B 27/28) [4]
G02B 27/12	2-Punkt Untergruppe	. . operating by refraction only
G02B 27/14	2-Punkt Untergruppe	. . operating by reflection only
G02B 27/16	2-Punkt Untergruppe	. . used as aids for focusing
G02B 27/18	1-Punkt Untergruppe	. for optical projection, e.g. combination of mirror and condenser and objective
G02B 27/20	2-Punkt Untergruppe	. . for imaging minute objects, e.g. light-pointer
G02B 27/22	1-Punkt Untergruppe	. for producing stereoscopic or other three-dimensional effects (in microscopes G02B 21/22; viewing apparatus G02B 27/02)
G02B 27/24	2-Punkt Untergruppe	. . involving reflecting prisms and mirrors only
G02B 27/26	2-Punkt Untergruppe	. . involving polarising means
G02B 27/28	1-Punkt Untergruppe	. for polarising (used in stereoscopes G02B 27/26)
G02B 27/30	1-Punkt Untergruppe	. Collimators
G02B 27/32	1-Punkt Untergruppe	. Fiducial marks or measuring scales within the optical system
G02B 27/34	2-Punkt Untergruppe	. . illuminated
G02B 27/36	2-Punkt Untergruppe	. . adjustable
G02B 27/40	1-Punkt Untergruppe	. Optical focusing aids (beam splitting or combining systems G02B 27/10)
G02B 27/42	1-Punkt Untergruppe	. Diffraction optics (G02B 27/60 takes precedence) [3]
G02B 27/44	2-Punkt Untergruppe	. . Grating systems; Zone plate systems (G02B 27/46 takes precedence; spectrometry G01J) [3]
G02B 27/46	2-Punkt Untergruppe	. . Systems using spatial filters (character recognition G06K 9/00) [3]
G02B 27/48	1-Punkt Untergruppe	. Laser speckle optics (speckle suppression in holography G03H 1/32) [3]
G02B 27/50	1-Punkt Untergruppe	. Optics for phase object visualisation (in microscopes G02B 21/14) [3]

Symbol	Typ	Titel
G02B 27/52	2-Punkt Untergruppe	. . Phase contrast optics [3]
G02B 27/54	2-Punkt Untergruppe	. . Schlieren-optical systems [3]
G02B 27/56	1-Punkt Untergruppe	. Optics using evanescent waves, i.e. inhomogeneous waves [3]
G02B 27/58	1-Punkt Untergruppe	. Optics for apodization or superresolution; Optical synthetic aperture systems [3]
G02B 27/60	1-Punkt Untergruppe	. Systems using moire fringes (means for converting the output of a sensing member using diffraction gratings G01D 5/38) [3]
G02B 27/62	1-Punkt Untergruppe	. Optical apparatus specially adapted for adjusting optical elements during the assembly of optical systems (adjusting means being part of the system to be assembled G02B 7/00) [3]
G02B 27/64	1-Punkt Untergruppe	. Imaging systems using optical elements for stabilisation of the lateral and angular position of the image (focusing systems G02B 7/04; adjustment of optical system relative to image or object surface G03B 5/00) [3]