

| Symbol           | Typ                 | Titel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>G</b>         | <b>Sektion</b>      | <b>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 per se, see the relevant places, e.g. C03B , C03C)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>G02B</b>      | <b>Unterklasse</b>  | <b><i>OPTICAL ELEMENTS, SYSTEMS, OR APPARATUS ( G02F takes precedence ; optical elements specially adapted for use in lighting devices or systems thereof F21V 1/00 to F21V 13/00 ; measuring-instruments, see 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]</i></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>                                                                                                                                                                                                                                                                                                                                                                   |
| G02B 6/02        | 1-Punkt Untergruppe | . Optical fibre with cladding (G02B 6/16 takes precedence; mechanical structures for providing tensile strength and external protection G02B 6/44) [4]                                                                                                                                                                                                                                                                                                                                              |
| 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]                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| G02B 6/10        | 1-Punkt Untergruppe | . of the optical waveguide type (G02B 6/24 takes 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] |
| 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]                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Symbol     | Typ                 | Titel                                                                                                                                                                                                 |
|------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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  | 2-Punkt Untergruppe | . . Optical fibre with cladding (mechanical structures for providing tensile strength and external protection G02B 6/44) [4]                                                                          |
| G02B 6/17  | 3-Punkt Untergruppe | . . . with polarisation-maintaining properties [6]                                                                                                                                                    |
| G02B 6/18  | 3-Punkt Untergruppe | . . . with core or cladding having graded refractive index [4]                                                                                                                                        |
| G02B 6/20  | 3-Punkt Untergruppe | . . . with non-solid core or cladding [4]                                                                                                                                                             |
| G02B 6/22  | 3-Punkt Untergruppe | . . . core or cladding comprising multiple layers [4]                                                                                                                                                 |
| 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, see 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]                                                                                                                                                                  |
| 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]                                                                                                                                                            |

| Symbol           | Typ                 | Titel                                                                                                                                                                                                                                                                                             |
|------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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]                                                                                                                                                                                                                                                                      |
| 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                                                                                                                                                                                                                                                          |

| Symbol           | Typ                 | Titel                                                                                                                                                                                                                   |
|------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G02B 7/24        | 2-Punkt Untergruppe | . . Pivoted connections                                                                                                                                                                                                 |
| G02B 7/28        | 1-Punkt Untergruppe | . Systems for automatic generation of focusing signals (measuring distance per se G01C , G01S; using such signals to control focus of particular apparatus, see 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                                                                                                                                                                                           |
| 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                                                                                                                                                                                 |

| Symbol            | Typ                 | Titel                                                                                                                                                                                                     |
|-------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                                 |
| 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                                                                                                                                                                           |

| Symbol            | Typ                 | Titel                                                                                                                                                                   |
|-------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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]                                                                                                                                            |
| 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]                                          |

| Symbol            | Typ                 | Titel                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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><i>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]</i></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                                                                                                                                                                                                                                                                                                                                                            |
| 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</b>                                                                                                                                                                                                                      |



| Symbol            | Typ                 | Titel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                     | <b>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 to 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]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| G02B 26/10        | 2-Punkt Untergruppe | . . Scanning systems (for special applications, see 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]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Symbol     | Typ                 | Titel                                                                                                                                            |
|------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 [3]                                                                                                      |
| G02B 27/52 | 2-Punkt Untergruppe | . . Phase contrast optics (in microscopes G02B 21/14) [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]                     |

| Symbol     | Typ                 | Titel                                                                                                                                                                                                                     |
|------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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] |