# Section XVIII Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; clocks and watches; musical instruments; parts and accessories thereof

## Chapter 90 Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical Or Surgical Instruments and Apparatus; Parts and Accessories Thereof

### Chapter Notes

1. This chapter does not cover:

* articles of a kind used in machines, appliances or for other technical uses, of vulcanised rubber other than hard rubber (heading 4016), of leather or of composition leather (heading 4205) or of textile material (heading 5911);
* supporting belts or other support articles of textile material, whose intended effect on the organ to be supported or held derives solely from their elasticity (for example, maternity belts, thoracic support bandages, abdominal support bandages, supports for joints or muscles) (Section XI);
* refractory goods of heading 6903; ceramic wares for laboratory, chemical or other technical uses, of heading 6909;
* glass mirrors, not optically worked, of heading 7009, or mirrors of base metal or of precious metal, not being optical elements (heading 8306 or Chapter 71);
* goods of heading 7007, 7008, 7011, 7014, 7015 or 7017;
* parts of general use, as defined in note 2 to Section XV, of base metal (Section XV) or similar goods of plastics (Chapter 39);
* pumps incorporating measuring devices, of heading 8413; weight-operated counting and checking machinery, or separately presented weights for balances (heading 8423); lifting or handling machinery (headings 8425 to 8428); paper or paperboard cutting machines of all kinds (heading 8441); fittings for adjusting work or tools on machine tools or water-jet cutting machines, of heading 8466, including fittings with optical devices for reading the scale (for example, optical dividing heads) but not those which are in themselves essentially optical instruments (for example, alignment telescopes); calculating machines (heading 8470); valves and other appliances of heading 8481; machines and apparatus (including apparatus for the projection or drawing of circuit patterns on sensitised semiconductor materials) of heading 8486;
* searchlights or spotlights of a kind used for cycles or motor vehicles (heading 8512); portable electric lamps of heading 8513; cinematographic sound recording, reproducing or re-recording apparatus (heading 8519); sound-heads (heading 8522); television cameras, digital cameras and video camera recorders (heading 8525); radar apparatus, radio navigational aid apparatus or radio remote control apparatus (heading 8526); connectors for optical fibres, optical fibre bundles or cables (heading 8536); numerical control apparatus of heading 8537; sealed beam lamp units of heading 8539; optical fibre cables of heading 8544;
* (ij) searchlights or spotlights of heading 9405;
* articles of Chapter 95;
* monopods, bipods, tripods and similar articles, of heading 9620;
* capacity measures, which are to be classified according to their constituent material; or
* spools, reels or similar supports (which are to be classified according to their constituent material, for example, in heading 3923 or Section XV).

2. Subject to note 1 above, parts and accessories for machines, apparatus, instruments or articles of this chapter are to be classified according to the following rules:

* Parts and accessories which are goods included in any of the headings of this chapter or of Chapter 84, 85 or 91 (other than heading 8487, 8548 or 9033) are in all cases to be classified in their respective headings.
* Other parts and accessories, if suitable for use solely or principally with a particular kind of machine, instrument or apparatus, or with a number of machines, instruments or apparatus of the same heading (including a machine, instrument or apparatus of heading 9010, 9013 or 9031) are to be classified with the machines, instruments or apparatus of that kind;
* All other parts and accessories are to be classified in heading 9033.

3. The provisions of notes 3 and 4 to Section XVI apply also to this chapter.

4. Heading 9005 does not apply to telescopic sights for fitting to arms, periscopic telescopes for fitting to submarines or tanks, or to telescopes for machines, appliances, instruments or apparatus of this chapter or Section XVI; such telescopic sights and telescopes are to be classified in heading 9013.

5. Measuring or checking optical instruments, appliances or machines which, but for this note, could be classified both in heading 9013 and in heading 9031 are to be classified in heading 9031.

6. For the purposes of heading 9021, the expression 'orthopaedic appliances' means appliances for:

* Preventing or correcting bodily deformities; or
* Supporting or holding parts of the body following an illness, operation or injury.

Orthopaedic appliances include footwear and special insoles designed to correct orthopaedic conditions, provided that they are either (1) made to measure or (2) mass-produced, presented singly and not in pairs and designed to fit either foot equally.

7. Heading 9032 applies only to:

* instruments and apparatus for automatically controlling the flow, level, pressure or other variables of liquids or gases, or for automatically controlling temperature, whether or not their operation depends on an electrical phenomenon which varies according to the factor to be automatically controlled, which are designed to bring this factor to, and maintain it at, a desired value, stabilised against disturbances, by constantly or periodically measuring its actual value; and
* automatic regulators of electrical quantities, and instruments or apparatus for automatically controlling non-electrical quantities the operation of which depends on an electrical phenomenon varying according to the factor to be controlled, which are designed to bring this factor to, and maintain it at, a desired value, stabilised against disturbances, by constantly or periodically measuring its actual value.

### Additional note

1. For the purposes of subheadings 9015 10 10, 9015 20 10, 9015 30 10, 9015 40 10, 9024 80 11, 9024 80 19, 9025 19 20, 9025 80 40 , 9026 10 21, 9026 10 29, 9026 20 20, 9026 80 20, 9027 10 10, 9027 80 11, 9027 80 13, 9027 80 17, 9030 33 30, 9030 89 30 and 9032 10 20, the expression ‘electronic’ means instruments and apparatus which incorporate one or more articles of heading 8540, 8541 or 8542 but for the purposes of the foregoing, no account shall be taken of articles of heading 8540, 8541 or 8542 which have solely the function of rectifying current or which are included in the power pack of instruments or apparatus.

| Classification | Description |
| --- | --- |
| **9001** | **Optical fibres and optical fibre bundles; optical fibre cables other than those of heading 8544; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked** |
| **9001 10** | - Optical fibres, optical fibre bundles and cables |
| **9001 10 10** | - - Image conductor cables |
| **9001 10 90** | - - Other |
| **9001 10 90 10** | - - - Image reverser made up from an assembly of optical fibres |
| **9001 10 90 30** | - - - Polymer optical fibre with: - a poly(methyl methacrylate) core, - a cladding of fluorinated polymer, - a diameter of not more than 3,0 mm, and - a length of more than 150 m, of a kind used in the manufacture of polymer fibre cables |
| **9001 10 90 40** | - - - Fibre optic plates: - uncoated and unpainted, - of a length of 30mm or more, but not more than 234.5mm, - of a width of 7mm or more, but not more than 28mm, and - of a height of 0.5mm or more, but not more than 3mm of a kind used in dental x-ray systems |
| **9001 10 90 90** | - - - Other |
| **9001 20** | - Sheets and plates of polarising material |
| **9001 20 00 10** | - - Material consisting of a polarising film, whether or not on rolls, supported on one or both sides by transparent material, whether or not with an adhesive layer, covered on one side or on both sides with a release film |
| **9001 20 00 20** | - - Optical, diffuser, reflector or prism sheets, unprinted diffuser plates, whether or not possessing polarising properties, specifically cut |
| **9001 20 00 90** | - - Other |
| **9001 30 00** | - Contact lenses |
| **9001 40** | - Spectacle lenses of glass |
| **9001 40 20** | - - Not for the correction of vision |
|  | - - For the correction of vision |
|  | - - - Both sides finished |
| **9001 40 41** | - - - - Single focal |
| **9001 40 49** | - - - - Other |
| **9001 40 80** | - - - Other |
| **9001 50** | - Spectacle lenses of other materials |
| **9001 50 20** | - - Not for the correction of vision |
|  | - - For the correction of vision |
|  | - - - Both sides finished |
| **9001 50 41** | - - - - Single focal |
| **9001 50 41 40** | - - - - - Organic uncut corrective eyeglass lens, finished on both sides, to undergo a coating, colouring, edging, mounting or any other substantial process for use in the manufacture of corrective glasses |
| **9001 50 41 90** | - - - - - Other |
| **9001 50 49** | - - - - Other |
| **9001 50 49 40** | - - - - - Organic uncut corrective eyeglass lens, finished on both sides, to undergo a coating, colouring, edging, mounting or any other substantial process for use in the manufacture of corrective glasses |
| **9001 50 49 90** | - - - - - Other |
| **9001 50 80** | - - - Other |
| **9001 50 80 30** | - - - - Round organic uncut, semi-finished eyeglass lens with corrective effect, finished on one side, of a kind used for the manufacture of finished eyeglass lenses |
| **9001 50 80 90** | - - - - Other |
| **9001 90** | - Other |
| **9001 90 00 10** | - - For use in civil aircraft |
| **9001 90 00 18** | - - Fibre optic plates: - uncoated and unpainted, - of a length of 30mm or more, but not more than 234.5mm, - of a width of 7mm or more, but not more than 28mm, and - of a height of 0.5mm or more, but not more than 3mm of a kind used in dental x-ray systems |
| **9001 90 00 25** | - - Unmounted optical elements made from moulded infrared transmitting chalcogenide glass, or a combination of infrared transmitting chalcogenide glass and another lens material |
| **9001 90 00 33** | - - Reflector or diffuser sheets, in rolls, - for protection against ultraviolet or infra-red heat radiation, to be affixed to windows or - for equal transmission and distribution of light, intended for LCD modules |
| **9001 90 00 35** | - - Rear projection screen, comprising a lenticular plastic plate |
| **9001 90 00 45** | - - Rod of neodymium-doped yttrium-aluminium garnet (YAG) material, polished at both ends |
| **9001 90 00 55** | - - Optical, diffuser, reflector or prism sheets, unprinted diffuser plates, whether or not possessing polarising properties, specifically cut |
| **9001 90 00 65** | - - Optical film with a minimum of 5 multi-layer structures, including a back side reflector, a front side coating and a contrast filter with a pitch of not more than 0,65 μm, for use in the manufacture of front projection screens |
| **9001 90 00 70** | - - Polyethylene terephthalate film with a thickness of less than 300 µm according to ASTM D2103, having on one side prisms of acrylic resin with a prism angle of 90° and a prism pitch of 50 µm |
| **9001 90 00 80** | - - Unmounted glass lenses, prisms and cemented elements for use in the manufacture or repair of goods of CN codes 9002, 9005, 9013 10 and 9015 |
| **9001 90 00 85** | - - Light guide panel made of poly(methyl methacrylate), - whether or not cut, - whether or not printed, for use in the manufacture of backlight units for flat screen TVs |
| **9001 90 00 90** | - - Other |
| **9002** | **Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked** |
|  | - Objective lenses |
| **9002 11** | - - For cameras, projectors or photographic enlargers or reducers |
| **9002 11 00 10** | - - - Adjustable lens unit, having a focal length of 90 mm or more but not more than 180 mm and comprising a combination of between 4 and 8 glass or methacrylic lenses with a diameter of 120 mm or more but not more than 180 mm, each lens coated on at least one side with a magnesium fluoride layer, for use in the manufacture of video projectors |
| **9002 11 00 15** | - - - Infrared lens with motorised focus adjustment, - using wavelengths of 3 μm or more but not more than 5 μm, - providing a clear picture from 50 m to infinity, - with fields of vision sizes of 3° x 2,25° and 9° x 6,75 °, - with a weight of not more than 230 g, - with a length of not more than 88 mm, - with a diameter of not more than 46 mm, - athermalised, for use in the manufacture of thermal imaging cameras, infrared binoculars, weapons scopes |
| **9002 11 00 20** | - - - Lenses • measuring not more than 80 mm x 55 mm x 50 mm, • with a resolution of 160 lines/mm or better, and • with a zoom ratio of 18 times, of a kind used for the production of visualizers or live image cameras |
| **9002 11 00 25** | - - - Infrared optical unit composed of - a monocrystalline silicon lens with a diameter of 84 mm (± 0.1 mm) and - a monocrystalline germanium lens with a diameter of 62 mm (± 0.05 mm) assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 11 00 35** | - - - Infrared optical unit composed of - a silicon lens with a diameter of 29 mm (± 0.05 mm) and - a monocrystalline calcium fluoride lens with a diameter of 26 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of kind a used for thermal imaging cameras |
| **9002 11 00 40** | - - - Lenses • measuring not more than 125 mm x 65 mm x 65 mm, • with a resolution of 125 lines/mm or better, and • with a zoom ratio of 16 times of a kind used for the production of visualizers or live image cameras |
| **9002 11 00 45** | - - - Infrared optical unit - with a silicon lens of a diameter of 62 mm (± 0,05 mm), - mounted on a machined aluminum alloy support of a kind used for thermal cameras |
| **9002 11 00 50** | - - - Lens unit: - having a focal length of 25 mm or more but not more than 150 mm, - consisting of glass or plastic lenses, with a diameter of 60 mm or more but not more than 190 mm |
| **9002 11 00 55** | - - - Infrared optical unit composed of - a germanium lens with a diameter of 11 mm (± 0.05 mm), - a monocrystalline calcium fluoride lens with a diameter of 14 mm (± 0.05 mm), and - a silicon lens with a diameter of 17 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 11 00 65** | - - - Infrared optical unit - with a silicon lens with a diameter of 26 mm (± 0,1 mm), - mounted on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 11 00 75** | - - - Infrared optical unit composed of - a germanium lens with a diameter of 19 mm (± 0.05 mm), - a monocrystalline calcium fluoride lens with a diameter of 18 mm (± 0.05 mm), - a germanium lens with a diameter of 20.6 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 11 00 85** | - - - Lens assembly with: - a horizontal field of view range of 50 deg or more, but not more than 200 deg, - a focal length of 1,16 mm or more, but not more than 5,45 mm, - a relative aperture of F/2,0 or more but not more than F/2,6, and - a diameter of 5 mm or more but not more than 18,5 mm, for use in the manufacture of CMOS automotive cameras |
| **9002 11 00 90** | - - - Other |
| **9002 19** | - - Other |
| **9002 19 00 10** | - - - Infrared lens with motorised focus adjustment, - using wavelengths of 3 μm or more but not more than 5 μm, - providing a clear picture from 50 m to infinity, - with fields of vision sizes of 3° x 2,25° and 9° x 6,75 °, - with a weight of not more than 230 g, - with a length of not more than 88 mm, - with a diameter of not more than 46 mm, - athermalised, for use in the manufacture of thermal imaging cameras, infrared binoculars, weapons scopes |
| **9002 19 00 20** | - - - Infrared optical unit composed of - a monocrystalline silicon lens with a diameter of 84 mm (± 0.1 mm) and - a monocrystalline germanium lens with a diameter of 62 mm (± 0.05 mm) assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 19 00 30** | - - - Infrared optical unit composed of - a silicon lens with a diameter of 29 mm (± 0.05 mm) and - a monocrystalline calcium fluoride lens with a diameter of 26 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of kind a used for thermal imaging cameras |
| **9002 19 00 40** | - - - Infrared optical unit - with a silicon lens of a diameter of 62 mm (± 0,05 mm), - mounted on a machined aluminum alloy support of a kind used for thermal cameras |
| **9002 19 00 50** | - - - Infrared optical unit composed of - a germanium lens with a diameter of 11 mm (± 0.05 mm), - a monocrystalline calcium fluoride lens with a diameter of 14 mm (± 0.05 mm), and - a silicon lens with a diameter of 17 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 19 00 60** | - - - Infrared optical unit - with a silicon lens with a diameter of 26 mm (± 0,1 mm), - mounted on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 19 00 70** | - - - Infrared optical unit composed of - a germanium lens with a diameter of 19 mm (± 0.05 mm), - a monocrystalline calcium fluoride lens with a diameter of 18 mm (± 0.05 mm), - a germanium lens with a diameter of 20.6 mm (± 0.05 mm), assembled on a machined aluminum alloy support, of a kind used for thermal imaging cameras |
| **9002 19 00 90** | - - - Other |
| **9002 20** | - Filters |
| **9002 20 00 10** | - - Filter, consisting of a plastic polarising membrane, a glass plate and a transparent protective film, mounted on a metal frame, for use in the manufacture of products falling within heading 8528 |
| **9002 20 00 90** | - - Other |
| **9002 90** | - Other |
| **9002 90 00 10** | - - For use in civil aircraft |
| **9002 90 00 20** | - - Lens, mounted, having a fixed focal length of 3,8 mm (±0,19 mm) or 8 mm (±0,4 mm), with a relative aperture of F2.0 and a diameter of not more than 33 mm, for use in the manufacture of charged-coupled (CCD) cameras |
| **9002 90 00 30** | - - Optical unit, comprising 1 or 2 rows of optical glass fibres in the form of lenses and with a diameter of 0,85 mm or more but not more than 1,15 mm, embedded between 2 plastic plates |
| **9002 90 00 40** | - - Mounted lenses made from infrared transmitting chalcogenide glass, or a combination of infrared transmitting chalcogenide glass and another lens material |
| **9002 90 00 90** | - - Other |
| **9003** | **Frames and mountings for spectacles, goggles or the like, and parts thereof** |
|  | - Frames and mountings |
| **9003 11** | - - Of plastics |
| **9003 11 00 10** | - - - For use in the manufacture of corrective glasses |
| **9003 11 00 90** | - - - Other |
| **9003 19** | - - Of other materials |
|  | - - - Of base metal |
| **9003 19 00 20** | - - - - For use in the manufacture of corrective glasses |
| **9003 19 00 30** | - - - - Other |
| **9003 19 00 90** | - - - Of other materials |
| **9003 90** | - Parts |
| **9003 90 00 20** | - - Parts of spectacle frames and mountings, including - temples, - blanks of a kind used for the manufacture of spectacle parts and - bolts of the kind used for spectacle frames and mountings, of a titanium alloy |
| **9003 90 00 90** | - - Other |
| **9004** | **Spectacles, goggles and the like, corrective, protective or other** |
| **9004 10** | - Sunglasses |
| **9004 10 10** | - - With lenses optically worked |
|  | - - Other |
| **9004 10 91** | - - - With lenses of plastics |
| **9004 10 99** | - - - Other |
| **9004 90** | - Other |
| **9004 90 10** | - - With lenses of plastics |
| **9004 90 90** | - - Other |
| **9005** | **Binoculars, monoculars, other optical telescopes, and mountings therefor; other astronomical instruments and mountings therefor, but not including instruments for radio-astronomy** |
| **9005 10 00** | - Binoculars |
| **9005 80 00** | - Other instruments |
| **9005 90 00** | - Parts and accessories (including mountings) |
| **9006** | **Photographic (other than cinematographic) cameras; photographic flashlight apparatus and flashbulbs other than discharge lamps of heading 8539** |
| **9006 30 00** | - Cameras specially designed for underwater use, for aerial survey or for medical or surgical examination of internal organs; comparison cameras for forensic or criminological purposes |
| **9006 40 00** | - Instant print cameras |
|  | - Other cameras |
| **9006 51 00** | - - With a through-the-lens viewfinder (single lens reflex (SLR)), for roll film of a width not exceeding 35 mm |
| **9006 52 00** | - - Other, for roll film of a width less than 35 mm |
| **9006 53** | - - Other, for roll film of a width of 35 mm |
| **9006 53 10** | - - - Disposable cameras |
| **9006 53 80** | - - - Other |
| **9006 59 00** | - - Other |
|  | - Photographic flashlight apparatus and flashbulbs |
| **9006 61 00** | - - Discharge lamp (electronic) flashlight apparatus |
| **9006 69 00** | - - Other |
|  | - Parts and accessories |
| **9006 91 00** | - - For cameras |
| **9006 99 00** | - - Other |
| **9007** | **Cinematographic cameras and projectors, whether or not incorporating sound recording or reproducing apparatus** |
| **9007 10 00** | - Cameras |
| **9007 20** | - Projectors |
| **9007 20 00 10** | - - For use in certain types of aircraft |
| **9007 20 00 90** | - - Other |
|  | - Parts and accessories |
| **9007 91 00** | - - For cameras |
| **9007 92** | - - For projectors |
| **9007 92 00 10** | - - - For use in certain types of aircraft |
| **9007 92 00 90** | - - - Other |
| **9008** | **Image projectors, other than cinematographic; photographic (other than cinematographic) enlargers and reducers** |
| **9008 50 00** | - Projectors, enlargers and reducers |
| **9008 90 00** | - Parts and accessories |
| **9010** | **Apparatus and equipment for photographic (including cinematographic) laboratories, not specified or included elsewhere in this chapter; negatoscopes; projection screens** |
| **9010 10 00** | - Apparatus and equipment for automatically developing photographic (including cinematographic) film or paper in rolls or for automatically exposing developed film to rolls of photographic paper |
| **9010 50 00** | - Other apparatus and equipment for photographic (including cinematographic) laboratories; negatoscopes |
| **9010 60 00** | - Projection screens |
| **9010 90** | - Parts and accessories |
| **9010 90 20** | - - Of apparatus and equipment of subheadings 9010 50 00 or 9010 60 00 |
| **9010 90 80** | - - Other |
| **9011** | **Compound optical microscopes, including those for photomicrography, cinephotomicrography or microprojection** |
| **9011 10** | - Stereoscopic microscopes |
| **9011 10 10** | - - Fitted with equipment specifically designed for the handling and transport of semiconductor wafers or reticles |
| **9011 10 90** | - - Other |
| **9011 20** | - Other microscopes, for photomicrography, cinephotomicrography or microprojection |
| **9011 20 10** | - - Photomicrographic microscopes fitted with equipment specifically designed for the handling and transport of semiconductor wafers or reticles |
| **9011 20 90** | - - Other |
| **9011 80 00** | - Other microscopes |
| **9011 90** | - Parts and accessories |
| **9011 90 10** | - - Of apparatus of subheading 9011 10 10 or 9011 20 10 |
| **9011 90 90** | - - Other |
| **9012** | **Microscopes other than optical microscopes; diffraction apparatus** |
| **9012 10** | - Microscopes other than optical microscopes; diffraction apparatus |
| **9012 10 10** | - - Electron microscopes fitted with equipment specifically designed for the handling and transport of semiconductor wafers or reticles |
| **9012 10 90** | - - Other |
| **9012 90** | - Parts and accessories |
| **9012 90 10** | - - Of apparatus of subheading 9012 10 10 |
| **9012 90 90** | - - Other |
| **9013** | **Liquid crystal devices not constituting articles provided for more specifically in other headings; lasers, other than laser diodes; other optical appliances and instruments, not specified or included elsewhere in this chapter** |
| **9013 10** | - Telescopic sights for fitting to arms; periscopes; telescopes designed to form parts of machines, appliances, instruments or apparatus of this chapter or Section XVI |
| **9013 10 10** | - - Telescopes designed to form parts of machines, appliances, instruments or apparatus of this Chapter or Section XVI |
| **9013 10 90** | - - Other |
| **9013 20 00** | - Lasers, other than laser diodes |
| **9013 80** | - Other devices, appliances and instruments |
|  | - - Liquid crystal devices |
| **9013 80 20** | - - - Active matrix liquid crystal devices |
| **9013 80 30** | - - - Other |
| **9013 80 90** | - - Other |
| **9013 80 90 30** | - - - Electronic semiconductor micro-mirror in a housing suitable for the automatic printing of conductor boards, mainly consisting of: - one or more microelectromechanical mirrors (MEMS) manufactured with semiconductor technology, with a drive arranged in three-dimensional structures on the semiconductor material, - whether or not in a combination with one or more monolithic application-specific integrated circuits (ASIC), of a kind used for incorporation into products of Chapters 84-90 and 95 |
| **9013 80 90 90** | - - - Other |
| **9013 90** | - Parts and accessories |
| **9013 90 05** | - - For telescopic sights for fitting to arms or for periscopes |
| **9013 90 10** | - - For liquid crystal devices (LCD) |
| **9013 90 80** | - - Other |
| **9014** | **Direction finding compasses; other navigational instruments and appliances** |
| **9014 10** | - Direction finding compasses |
| **9014 10 00 10** | - - For use in civil aircraft |
|  | - - Other |
| **9014 10 00 30** | - - - Electronic compass, as a geomagnetic sensor, in a housing (e.g. CSWLP, LGA, SOIC) suitable for fully automated printed circuit board (PCB) assembly, with the following main components: - a combination of one or more application-specific integrated circuits (ASIC) and - one or more micro‑electromechanical sensors (MEMS) manufactured with semiconductor technology, with mechanical components arranged in three-dimensional structures on the semiconductor material, of a kind used in the manufacture of products falling in chapters 84-90 and 94 |
| **9014 10 00 89** | - - - Other |
| **9014 20** | - Instruments and appliances for aeronautical or space navigation (other than compasses) |
| **9014 20 20** | - - Inertial navigation systems |
| **9014 20 80** | - - Other |
| **9014 80 00** | - Other instruments and appliances |
| **9014 90 00** | - Parts and accessories |
| **9015** | **Surveying (including photogrammetrical surveying), hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses; rangefinders** |
| **9015 10** | - Rangefinders |
| **9015 10 10** | - - Electronic |
| **9015 10 10 10** | - - - For use in certain types of aircraft |
| **9015 10 10 90** | - - - Other |
| **9015 10 90** | - - Other |
| **9015 10 90 10** | - - - For use in certain types of aircraft |
| **9015 10 90 90** | - - - Other |
| **9015 20** | - Theodolites and tachymeters (tacheometers) |
| **9015 20 10** | - - Electronic |
| **9015 20 90** | - - Other |
| **9015 30** | - Levels |
| **9015 30 10** | - - Electronic |
| **9015 30 90** | - - Other |
| **9015 40** | - Photogrammetrical surveying instruments and appliances |
| **9015 40 10** | - - Electronic |
| **9015 40 90** | - - Other |
| **9015 80** | - Other instruments and appliances |
| **9015 80 20** | - - Meteorological, hydrological and geophysical instruments and apparatus |
| **9015 80 40** | - - Instruments and appliances used in geodesy, topography, surveying or levelling; hydrographic instruments |
| **9015 80 80** | - - Other |
| **9015 90** | - Parts and accessories |
| **9015 90 00 10** | - - Parts of meteorological instruments and of rangefinders, for use in certain types of aircraft |
| **9015 90 00 90** | - - Other |
| **9016** | **Balances of a sensitivity of 5 cg or better, with or without weights** |
| **9016 00 10** | - Balances |
| **9016 00 90** | - Parts and accessories |
| **9017** | **Drawing, marking-out or mathematical calculating instruments (for example, drafting machines, pantographs, protractors, drawing sets, slide rules, disc calculators); instruments for measuring length, for use in the hand (for example, measuring rods and tapes, micrometers, callipers), not specified or included elsewhere in this chapter** |
| **9017 10** | - Drafting tables and machines, whether or not automatic |
| **9017 10 10** | - - Plotters |
| **9017 10 90** | - - Other |
| **9017 20** | - Other drawing, marking-out or mathematical calculating instruments |
| **9017 20 05** | - - Plotters |
| **9017 20 10** | - - Other drawing instruments |
| **9017 20 39** | - - Marking-out instruments |
| **9017 20 90** | - - Mathematical calculating instruments (including slide rules, disc calculators and the like) |
| **9017 30 00** | - Micrometers, callipers and gauges |
| **9017 80** | - Other instruments |
| **9017 80 10** | - - Measuring rods and tapes and divided scales |
| **9017 80 90** | - - Other |
| **9017 90 00** | - Parts and accessories |
| **9018** | **Instruments and appliances used in medical, surgical, dental or veterinary sciences, including scintigraphic apparatus, other electromedical apparatus and sight-testing instruments** |
|  | - Electrodiagnostic apparatus (including apparatus for functional exploratory examination or for checking physiological parameters) |
| **9018 11 00** | - - Electrocardiographs |
| **9018 12 00** | - - Ultrasonic scanning apparatus |
| **9018 13 00** | - - Magnetic resonance imaging apparatus |
| **9018 14 00** | - - Scintigraphic apparatus |
| **9018 19** | - - Other |
| **9018 19 10** | - - - Monitoring apparatus for simultaneous monitoring of two or more parameters |
| **9018 19 90** | - - - Other |
| **9018 20 00** | - Ultraviolet or infra-red ray apparatus |
|  | - Syringes, needles, catheters, cannulae and the like |
| **9018 31** | - - Syringes, with or without needles |
| **9018 31 10** | - - - Of plastics |
| **9018 31 90** | - - - Other |
| **9018 32** | - - Tubular metal needles and needles for sutures |
| **9018 32 10** | - - - Tubular metal needles |
| **9018 32 90** | - - - Needles for sutures |
| **9018 39 00** | - - Other |
|  | - Other instruments and appliances, used in dental sciences |
| **9018 41 00** | - - Dental drill engines, whether or not combined on a single base with other dental equipment |
| **9018 49** | - - Other |
| **9018 49 10** | - - - Burrs, discs, drills and brushes, for use in dental drills |
| **9018 49 90** | - - - Other |
| **9018 50** | - Other ophthalmic instruments and appliances |
| **9018 50 10** | - - Non-optical |
| **9018 50 90** | - - Optical |
| **9018 90** | - Other instruments and appliances |
| **9018 90 10** | - - Instruments and apparatus for measuring blood-pressure |
| **9018 90 20** | - - Endoscopes |
| **9018 90 30** | - - Renal dialysis equipment (artificial kidneys, kidney machines and dialysers) |
| **9018 90 40** | - - Diathermic apparatus |
| **9018 90 50** | - - Transfusion and infusion apparatus |
| **9018 90 60** | - - Anaesthetic apparatus and instruments |
| **9018 90 75** | - - Apparatus for nerve stimulation |
| **9018 90 84** | - - Other |
| **9019** | **Mechano-therapy appliances; massage apparatus; psychological aptitude-testing apparatus; ozone therapy, oxygen therapy, aerosol therapy, artificial respiration or other therapeutic respiration apparatus** |
| **9019 10** | - Mechano-therapy appliances; massage apparatus; psychological aptitude-testing apparatus |
| **9019 10 10** | - - Electrical vibratory-massage apparatus |
| **9019 10 90** | - - Other |
| **9019 20 00** | - Ozone therapy, oxygen therapy, aerosol therapy, artificial respiration or other therapeutic respiration apparatus |
| **9020** | **Other breathing appliances and gas masks, excluding protective masks having neither mechanical parts nor replaceable filters** |
| **9020 00 00 10** | - Breathing appliances and gas masks (excluding parts thereof), for use in civil aircraft |
|  | - Other |
| **9020 00 00 20** | - - Parts of respiratory apparatus and of gas masks, for use in certain types of aircraft |
| **9020 00 00 80** | - - Other |
| **9021** | **Orthopaedic appliances, including crutches, surgical belts and trusses; splints and other fracture appliances; artificial parts of the body; hearing aids and other appliances which are worn or carried, or implanted in the body, to compensate for a defect or disability** |
| **9021 10** | - Orthopaedic or fracture appliances |
| **9021 10 10** | - - Orthopaedic appliances |
| **9021 10 90** | - - Splints and other fracture appliances |
|  | - Artificial teeth and dental fittings |
| **9021 21** | - - Artificial teeth |
| **9021 21 10** | - - - Of plastics |
| **9021 21 90** | - - - Of other materials |
| **9021 29 00** | - - Other |
|  | - Other artificial parts of the body |
| **9021 31 00** | - - Artificial joints |
| **9021 39** | - - Other |
| **9021 39 10** | - - - Ocular prostheses |
| **9021 39 90** | - - - Other |
| **9021 40 00** | - Hearing aids, excluding parts and accessories |
| **9021 50 00** | - Pacemakers for stimulating heart muscles, excluding parts and accessories |
| **9021 90** | - Other |
| **9021 90 10** | - - Parts and accessories of hearing aids |
| **9021 90 90** | - - Other |
| **9022** | **Apparatus based on the use of X-rays or of alpha, beta or gamma radiation, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus, X-ray tubes and other X-ray generators, high tension generators, control panels and desks, screens, examination or treatment tables, chairs and the like** |
|  | - Apparatus based on the use of X-rays, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus |
| **9022 12 00** | - - Computed tomography apparatus |
| **9022 13 00** | - - Other, for dental uses |
| **9022 14 00** | - - Other, for medical, surgical or veterinary uses |
| **9022 19 00** | - - For other uses |
|  | - Apparatus based on the use of alpha, beta or gamma radiation, whether or not for medical, surgical, dental or veterinary uses, including radiography or radiotherapy apparatus |
| **9022 21 00** | - - For medical, surgical, dental or veterinary uses |
| **9022 29 00** | - - For other uses |
| **9022 30 00** | - X-ray tubes |
| **9022 90** | - Other, including parts and accessories |
| **9022 90 20** | - - Parts and accessories of apparatus based on the use of X-rays |
| **9022 90 80** | - - Other |
| **9023** | **Instruments, apparatus and models, designed for demonstrational purposes (for example, in education or exhibitions), unsuitable for other uses** |
| **9023 00 10** | - Of a type used for teaching physics, chemistry or technical subjects |
| **9023 00 80** | - Other |
| **9024** | **Machines and appliances for testing the hardness, strength, compressibility, elasticity or other mechanical properties of materials (for example, metals, wood, textiles, paper, plastics)** |
| **9024 10** | - Machines and appliances for testing metals |
| **9024 10 20** | - - Universal or for tensile tests |
| **9024 10 40** | - - For hardness tests |
| **9024 10 80** | - - Other |
| **9024 80** | - Other machines and appliances |
|  | - - Electronic |
| **9024 80 11** | - - - For testing textiles, paper or paperboard |
| **9024 80 19** | - - - Other |
| **9024 80 90** | - - Other |
| **9024 90 00** | - Parts and accessories |
| **9025** | **Hydrometers and similar floating instruments, thermometers, pyrometers, barometers, hygrometers and psychrometers, recording or not, and any combination of these instruments** |
|  | - Thermometers and pyrometers, not combined with other instruments |
| **9025 11** | - - Liquid-filled, for direct reading |
| **9025 11 20** | - - - Clinical or veterinary thermometers |
| **9025 11 80** | - - - Other |
| **9025 11 80 10** | - - - - For use in civil aircraft |
| **9025 11 80 90** | - - - - Other |
| **9025 19** | - - Other |
| **9025 19 20** | - - - Electronic |
| **9025 19 80** | - - - Other |
| **9025 19 80 10** | - - - - For use in civil aircraft |
| **9025 19 80 90** | - - - - Other |
| **9025 80** | - Other instruments |
| **9025 80 20** | - - Barometers, not combined with other instruments |
|  | - - Other |
| **9025 80 40** | - - - Electronic |
| **9025 80 40 10** | - - - - For use in civil aircraft |
|  | - - - - Other |
| **9025 80 40 30** | - - - - - Electronic barometric semiconductor pressure sensor in a housing, mainly consisting of - a combination of one or more monolithic application-specific integrated circuits (ASIC) and - at least one or more microelectromechanical sensor elements (MEMS) manufactured with semiconductor technology, with mechanical components arranged in three-dimensional structures on the semiconductor material |
| **9025 80 40 50** | - - - - - Electronic semiconductor sensor for measuring at least two of the following quantities: - Atmospheric pressure, temperature, (also for temperature compensation), humidity, or volatile organic compounds, - in a housing suitable for the automatic printing of conductor boards or Bare Die technology, containing : - one or more monolithic application-specific integrated circuits (ASIC), - one or more microelectromechanical sensor elements (MEMS) manufactured with semiconductor technology, with mechanical components arranged in three-dimensional structures on the semiconductor material, of a kind used for incorporation into products of Chapters 84-90 and 95 |
| **9025 80 40 89** | - - - - - Other |
| **9025 80 80** | - - - Other |
| **9025 80 80 10** | - - - - For use in civil aircraft |
| **9025 80 80 90** | - - - - Other |
| **9025 90** | - Parts and accessories |
| **9025 90 00 10** | - - For use in civil aircraft |
| **9025 90 00 90** | - - Other |
| **9026** | **Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases (for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of heading 9014, 9015, 9028 or 9032** |
| **9026 10** | - For measuring or checking the flow or level of liquids |
|  | - - Electronic |
| **9026 10 21** | - - - Flow meters |
| **9026 10 29** | - - - Other |
|  | - - Other |
| **9026 10 81** | - - - Flow meters |
| **9026 10 89** | - - - Other |
| **9026 20** | - For measuring or checking pressure |
| **9026 20 20** | - - Electronic |
|  | - - Other |
| **9026 20 40** | - - - Spiral or metal diaphragm type pressure gauges |
| **9026 20 80** | - - - Other |
| **9026 80** | - Other instruments or apparatus |
| **9026 80 20** | - - Electronic |
| **9026 80 80** | - - Other |
| **9026 90 00** | - Parts and accessories |
| **9027** | **Instruments and apparatus for physical or chemical analysis (for example, polarimeters, refractometers, spectrometers, gas or smoke analysis apparatus); instruments and apparatus for measuring or checking viscosity, porosity, expansion, surface tension or the like; instruments and apparatus for measuring or checking quantities of heat, sound or light (including exposure meters); microtomes** |
| **9027 10** | - Gas or smoke analysis apparatus |
| **9027 10 10** | - - Electronic |
| **9027 10 90** | - - Other |
| **9027 10 90 10** | - - - Sensor element for gas or smoke analysis in motor vehicles, essentially consisting of a zirconium-ceramic element in a metal housing |
| **9027 10 90 20** | - - - Lambda sensors for permanent incorporation into motor cycle exhaust systems |
| **9027 10 90 90** | - - - Other |
| **9027 20 00** | - Chromatographs and electrophoresis instruments |
| **9027 30 00** | - Spectrometers, spectrophotometers and spectrographs using optical radiation (UV, visible, IR) |
| **9027 50 00** | - Other instruments and apparatus using optical radiation (UV, visible, IR) |
| **9027 80** | - Other instruments and apparatus |
| **9027 80 05** | - - Exposure meters |
|  | - - Other |
|  | - - - Electronic |
| **9027 80 11** | - - - - pH meters, rH meters and other apparatus for measuring conductivity |
| **9027 80 13** | - - - - Apparatus for performing measurements of the physical properties of semiconductor materials or of LCD substrates or associated insulating and conducting layers during the semiconductor wafer production process or the LCD production process |
| **9027 80 17** | - - - - Other |
|  | - - - Other |
| **9027 80 91** | - - - - Viscometers, porosimeters and expansion meters |
| **9027 80 99** | - - - - Other |
| **9027 90** | - Microtomes; parts and accessories |
| **9027 90 10** | - - Microtomes |
|  | - - Parts and accessories |
| **9027 90 50** | - - - Of apparatus of subheadings 9027 20 to 9027 80 |
| **9027 90 80** | - - - Of microtomes or of gas or smoke analysis apparatus |
| **9028** | **Gas, liquid or electricity supply or production meters, including calibrating meters therefor** |
| **9028 10 00** | - Gas meters |
| **9028 20 00** | - Liquid meters |
| **9028 30** | - Electricity meters |
|  | - - For alternating current |
| **9028 30 11** | - - - For single-phase |
| **9028 30 19** | - - - For multiphase |
| **9028 30 90** | - - Other |
| **9028 90** | - Parts and accessories |
| **9028 90 10** | - - For electricity meters |
| **9028 90 90** | - - Other |
| **9029** | **Revolution counters, production counters, taximeters, milometers, pedometers and the like; speed indicators and tachometers, other than those of heading 9014 or 9015; stroboscopes** |
| **9029 10** | - Revolution counters, production counters, taximeters, milometers, pedometers and the like |
| **9029 10 00 10** | - - Electric or electronic revolution counters, for use in civil aircraft |
| **9029 10 00 30** | - - Speed sensor using the Hall effect for measuring wheels rotation in a motor vehicle equipped with plastic housing and attached to connecting cable with a joining connector and mounting holders of a kind used in the manufacture of goods of Chapter 87 |
| **9029 10 00 90** | - - Other |
| **9029 20** | - Speed indicators and tachometers; stroboscopes |
|  | - - Speed indicators and tachometers |
| **9029 20 31** | - - - Speed indicators for vehicles |
| **9029 20 31 10** | - - - - Clustered instrument panel with the microprocessor control board, stepping motors and LED indicators showing at least: - speed, - engine revolutions, - engine temperature, - the fuel level communicating via CAN-BUS and K-LINE protocols, of a kind used in the manufacture of goods of Chapter 87 |
| **9029 20 31 90** | - - - - Other |
| **9029 20 38** | - - - Other |
| **9029 20 38 10** | - - - - For use in civil aircraft |
| **9029 20 38 90** | - - - - Other |
| **9029 20 90** | - - Stroboscopes |
| **9029 90** | - Parts and accessories |
| **9029 90 00 10** | - - Of revolution counters, speed indicators and tachometers, for use in civil aircraft |
| **9029 90 00 20** | - - Clustered instrument panel with the microprocessor control board, stepping motors and LED indicators showing at least: - speed, - engine revolutions, - engine temperature, - the fuel level communicating via CAN-BUS and K-LINE protocols, of a kind used in the manufacture of goods of Chapter 87 |
| **9029 90 00 90** | - - Other |
| **9030** | **Oscilloscopes, spectrum analysers and other instruments and apparatus for measuring or checking electrical quantities, excluding meters of heading 9028; instruments and apparatus for measuring or detecting alpha, beta, gamma, X-ray, cosmic or other ionising radiation** |
| **9030 10 00** | - Instruments and apparatus for measuring or detecting ionising radiation |
| **9030 20 00** | - Oscilloscopes and oscillographs |
|  | - Other instruments and apparatus, for measuring or checking voltage, current, resistance or power |
| **9030 31** | - - Multimeters, without a recording device |
| **9030 31 00 10** | - - - For use in civil aircraft |
| **9030 31 00 90** | - - - Other |
| **9030 32 00** | - - Multimeters, with a recording device |
| **9030 33** | - - Other, without a recording device |
| **9030 33 20** | - - - Resistance measuring instruments |
| **9030 33 20 10** | - - - - For use in civil aircraft |
| **9030 33 20 90** | - - - - Other |
|  | - - - Other |
| **9030 33 30** | - - - - Electronic |
| **9030 33 30 10** | - - - - - For use in civil aircraft |
| **9030 33 30 90** | - - - - - Other |
| **9030 33 80** | - - - - Other |
| **9030 33 80 10** | - - - - - For use in civil aircraft |
| **9030 33 80 90** | - - - - - Other |
| **9030 39 00** | - - Other, with a recording device |
| **9030 40 00** | - Other instruments and apparatus, specially designed for telecommunications (for example, cross-talk meters, gain measuring instruments, distortion factor meters, psophometers) |
|  | - Other instruments and apparatus |
| **9030 82 00** | - - For measuring or checking semiconductor wafers or devices |
| **9030 84 00** | - - Other, with a recording device |
| **9030 89** | - - Other |
| **9030 89 30** | - - - Electronic |
| **9030 89 90** | - - - Other |
| **9030 89 90 10** | - - - - For use in civil aircraft |
| **9030 89 90 90** | - - - - Other |
| **9030 90 00** | - Parts and accessories |
| **9031** | **Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors** |
| **9031 10 00** | - Machines for balancing mechanical parts |
| **9031 20 00** | - Test benches |
|  | - Other optical instruments and appliances |
| **9031 41 00** | - - For inspecting semiconductor wafers or devices or for inspecting photomasks or reticles used in manufacturing semiconductor devices |
| **9031 49** | - - Other |
| **9031 49 10** | - - - Profile projectors |
| **9031 49 90** | - - - Other |
| **9031 80** | - Other instruments, appliances and machines |
| **9031 80 20** | - - For measuring or checking geometrical quantities |
| **9031 80 80** | - - Other |
| **9031 90 00** | - Parts and accessories |
| **9032** | **Automatic regulating or controlling instruments and apparatus** |
| **9032 10** | - Thermostats |
| **9032 10 20** | - - Electronic |
| **9032 10 20 10** | - - - For use in civil aircraft |
| **9032 10 20 90** | - - - Other |
| **9032 10 80** | - - Other |
| **9032 10 80 10** | - - - For use in civil aircraft |
| **9032 10 80 90** | - - - Other |
| **9032 20** | - Manostats |
| **9032 20 00 10** | - - For use in civil aircraft |
| **9032 20 00 90** | - - Other |
|  | - Other instruments and apparatus |
| **9032 81 00** | - - Hydraulic or pneumatic |
| **9032 89** | - - Other |
| **9032 89 00 10** | - - - For use in civil aircraft |
| **9032 89 00 20** | - - - Automotive airbag shock-sensor, comprising a contact capable of switching a current of 12 A at a voltage of 30 V, having a typical contact resistance of 80 mOhm |
| **9032 89 00 30** | - - - Electronic controller of electric power steering (EPS controller) |
| **9032 89 00 40** | - - - Digital valve controller for controlling liquids and gases |
| **9032 89 00 50** | - - - Gas panel for regulating and controlling of the gas flow rate, working with plasma technology, comprising - an electronic mass flow regulator, suitable for receiving and sending of analogue and digital signals - four pressure transducers, - two or more pressure valves, - electric interfaces and - several connectors for gas lines - suitable for in-situ plasma bonding processes or for multi frequency bond activating processes |
| **9032 89 00 90** | - - - Other |
| **9032 90** | - Parts and accessories |
| **9032 90 00 10** | - - For use in civil aircraft |
| **9032 90 00 90** | - - Other |
| **9033** | **Parts and accessories (not specified or included elsewhere in this chapter) for machines, appliances, instruments or apparatus of Chapter 90** |
| **9033 00 10** | - Light-emitting diode (LED) backlight modules, which are lighting sources that consist of one or more LEDs, and one or more connectors and are mounted on a printed circuit or other similar substrate, and other passive components, whether or not combined with optical components or protective diodes, and used as backlight illumination for liquid crystal displays (LCDs) |
| **9033 00 90** | - Other |