



**PRECISION AND RELIABILITY**

**LASERTECH<sup>®</sup>**

— industrial laser pointers —

# LASERTECH - Precision. Reliability. Innovation.

**LASERTECH**, a brand of the long-standing company AGNOLIN&BRUSADIN SRL, has specialised in creating laser pointers for industrial and professional use for over thirty years.

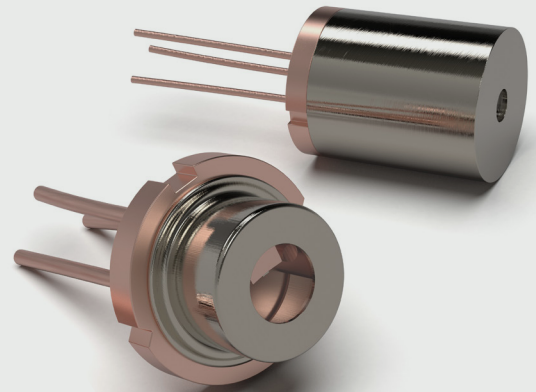
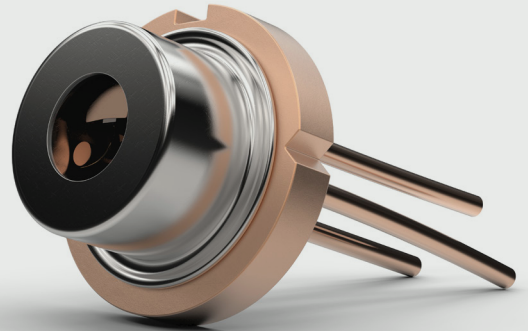
**We produce high-tech laser devices and systems** that enable the display of increasingly precise references for the operator: aligning, positioning, cutting, drilling, zeroing margins of error, saving on materials and time, and achieving superior performance and maximum productivity.

**We work in an array of sectors:** wood, marble, plastic, rubber, paper, glass working, automotive, industrial automation, food, logistics, biomedical, packaging, road marking machinery, rail industry.

Our **constantly updated team of technicians** provides the customer with the best and most advanced technologies available on the market, making our products competitive and reliable.

## **Broad range of projection types:**

lines, crosses, points, circles, grids, red or green light, adjustable or fixed focus, perfectly visible on all surfaces.



Dynamic and versatile, we guarantee a rapid response to customer requests, a very short order lead time as well as the ability to supply special products for custom applications.



In all industrial applications, the possibility of having precise references provided by laser pointers is essential. Lines, crosses, points, circles, grids, red or green light, adjustable or fixed focus, perfectly visible on all surfaces and in all settings.

## MANY SECTORS OF APPLICATION:

### AUTOMOTIVE

In any kind of vehicle manufacturing, laser projectors are used to position assembly elements and for dimensional and quality control of components. They can also be mounted on tyre balancing equipment, tyre changers and headlamp centring machines.



### WOOD INDUSTRY

Widely used on woodcutting machinery: lasers are mounted on log saws, circular saws, multi-blade saws, band saws, cutting machines, panel saws, flanging machines and presses. Alignment is possible because the light beam produced by the laser allows the limit of the machining process (e.g. the cutting of a blade) to be traced. Laser markers are generally installed on a bracket, aligning the beam with the disk and fastened integral to the bridge of the machine so that the beam moves when the bridge (usually the machine's Y-axis) is moved.



### METAL INDUSTRY, ENGINEERING, ROBOTICS

In the metalworking sector, lasers are a precious and versatile tool for speeding up working processes. They project target positions for visual/actual comparison or to visualise the optimal alignment of workpieces (even large and difficult to manoeuvre workpieces) for saws, folding tables or rollers, milling machines, drilling machines, press brakes, croppers. Using laser projectors in this sector cuts down on production costs and at the same time ensures a higher quality finished product.



### MARBLE AND STONE WORKING MACHINERY

Our laser pointers are used for aligning marble slabs on CNC bridge saws or multi-blade saws, positioning suction cups or clamping devices, aligning slabs on table tops or machining centres as well as for edge grinding, positioning cuts and holes.



### RAIL SECTOR

Laser pointers are used by rail network maintenance companies, both for structural checks and for checking track alignment.



### TEXTILE, LEATHER AND FOOTWEAR SECTOR

In the textile, leather and footwear sector too, our laser modules are essential for providing a precise reference for the operator in garment or leather manufacturing processes (positioning the fabric as it enters the machine, as an optical ruler for seam monitoring, reference for applying embellishments, applying labels, printing on fabric, positioning buttonholes and buttons, cutting fabric or leather, aligning and sewing pockets, alignment in the ironing process).



### LOGISTICS

Lasers projecting crosses, lines and circles form guiding systems on moving conveyor belts for positioning packages and boxes or any other goods being handled. They can also be applied to automated vertical warehouses, allowing the operator to be guided in recognising the material to be picked, with a not inconsiderable return in terms of time and productivity.



## FOOD INDUSTRY PRODUCTION LINES

Laser pointers are used to process (i.e. align or select) bulk or packaged food products in the horizontal or inclined handling process as they exit machines during the various production stages, in both packaging or distribution: Automatic bottling, filling, capping, thermo-sealing plants.



## PAPER, RUBBER, PLASTIC, PACKAGING INDUSTRY

Laser pointers mounted on machinery for plastic production and cutting (production of plastic films for packaging products in the food, medical and pet food sectors), or eco-sustainable packaging. Automatic wrapping machines, cutters, rewinders.



## BIOMEDICAL SECTOR

Laser pointers are mounted on the majority of diagnostic machines: tomography, CT, radiotherapy, orthopantomography; they are essential for aligning the patient or parts of the body during the session.



## PRINTING MACHINES

Laser references are mounted on gluing plotters, offset printing machines, cutters, folding machines, laminators, die-cutters, flexographic machines.



## VISION LASERS

The laser display is ideal for 2D and 3D measurements in combination with industrial cameras and image processing.



## GLASS CUTTERS AND ENGRAVERS

Glass working requires careful and precise positioning and careful checking of dimensions: we have been working for many years with the major glass working machine manufacturers in Italy and Europe. Used on glass cutting machines, including waterjet, sanding and drilling machines.



## LINE MARKING MACHINERY

Our laser pointers are mounted on line marking machines for marking roads and motorways, car parks, airports, sports fields.



## WATERJET CUTTING MACHINERY

Laser pointers are used as a reference on waterjet cutters to cut a wide variety of materials with a high level of precision and with no issues created by the humid environment.



## GLUE IMPREGNATION AND COATING LINES

Laser pointers are mounted on glue impregnation and coating lines for a number of sectors: from furniture to building and construction.





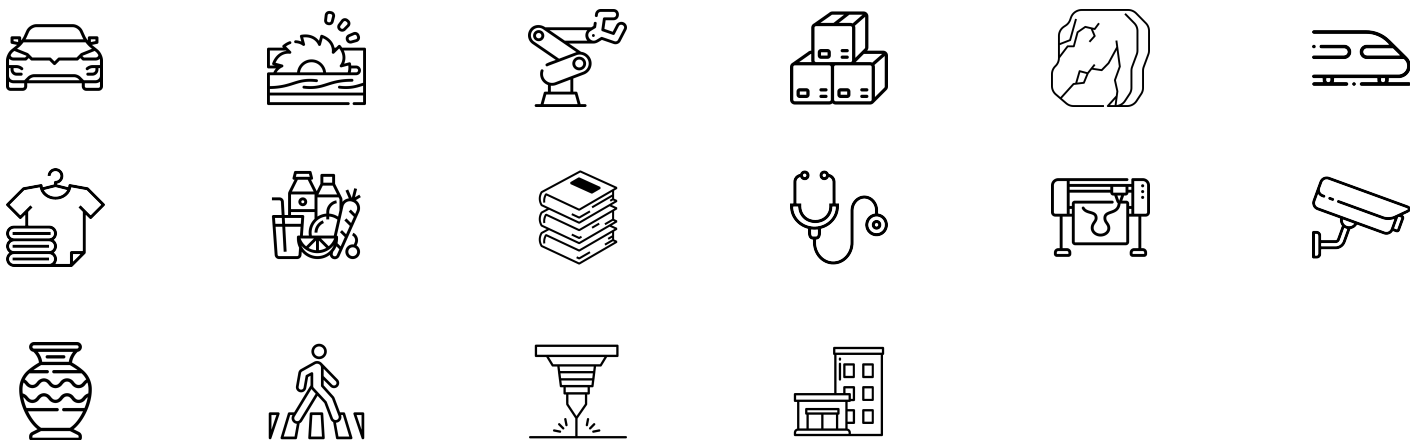
## Series LT1S20 - ADJUSTABLE FOCUS



### Compact and powerful red light adjustable emitter for points, crosses, circles and marker lines

New Ø20 mm red light emitter. A rotating steel bezel allows the laser beam to be focused at any distance. Designed for industrial use for positioning, marking cutting lines or image processing. Its light beam available in various wavelengths can be combined with a wide range of optical projections to meet every requirement. Available with various power supplies and trigger control.

### Our lasers are suitable for every application sector.



## Laser beam emitter LT1S20 series, adjustable focus



**Type of projection:** Dot

**Supply voltage:** 5 Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301A4V00R | 635 nm (bright red) | 1 mW             | <40 mA            | 2           |
| M4303A4V00R | 635 nm (bright red) | 3 mW             | <40 mA            | 3R          |
| M4305A4V00R | 635 nm (bright red) | 5 mW             | <40 mA            | 3R          |
| M4310A4V00R | 635 nm (bright red) | 10 mW            | <70 mA            | 3B          |
| M4315A4V00R | 635 nm (bright red) | 15 mW            | <90 mA            | 3B          |
| M4320A4V00R | 635 nm (bright red) | 20 mW            | <90 mA            | 3B          |
| M4330A4V00R | 635 nm (bright red) | 30 mW            | <120 mA           | 3B          |
| M4501A4V00R | 650 nm (red)        | 1 mW             | <40 mA            | 2           |
| M4503A4V00R | 650 nm (red)        | 3 mW             | <40 mA            | 3R          |
| M4505A4V00R | 650 nm (red)        | 5 mW             | <40 mA            | 3R          |
| M4701A4V00R | 670 nm (dark red)   | 1 mW             | <50 mA            | 3R          |
| M4703A4V00R | 670 nm (dark red)   | 3 mW             | <50 mA            | 3R          |
| M4705A4V00R | 670 nm (dark red)   | 5 mW             | <50 mA            | 3R          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt .Other optical projections available on request

## Laser beam emitter LT1S20 series, adjustable focus



**Type of projection:** Dot

**Supply voltage:** 9-36 Vdc 10-30 Vac Trigger 5-30Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301L4V00R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303L4V00R | 635 nm (bright red) | 3 mW             | <30 mA            | 3R          |
| M4305L4V00R | 635 nm (bright red) | 5 mW             | <30 mA            | 3R          |
| M4310L4V00R | 635 nm (bright red) | 10 mW            | <60 mA            | 3B          |
| M4315L4V00R | 635 nm (bright red) | 15 mW            | <80 mA            | 3B          |
| M4320L4V00R | 635 nm (bright red) | 20 mW            | <80 mA            | 3B          |
| M4330L4V00R | 635 nm (bright red) | 30 mW            | <110 mA           | 3B          |
| M4340L4V00R | 635 nm (bright red) | 40 mW            | <110 mA           | 3B          |
| M4350L4V00R | 635 nm (bright red) | 50 mW            | <120 mA           | 3B          |
| M4601L4V00R | 660 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4603L4V00R | 660 nm (red)        | 3 mW             | <30 mA            | 3R          |
| M4605L4V00R | 660 nm (red)        | 5 mW             | <40 mA            | 3R          |
| M4610L4V00R | 660 nm (red)        | 10 mW            | <40 mA            | 2M          |
| M4620L4V00R | 660 nm (red)        | 20 mW            | <50 mA            | 2M          |
| M4630L4V00R | 660 nm (red)        | 30 mW            | <50 mA            | 2M          |
| M4640L4V00R | 660 nm (red)        | 40 mW            | <60 mA            | 3B          |
| M4650L4V00R | 660 nm (red)        | 50 mW            | <60 mA            | 3B          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from 50mm to 20m. Other optical projections available on request

## Laser beam emitter LT1S20 series, adjustable focus



**Type of projection:** Dot

**Supply voltage:** 9-36 Vdc 10-30 Vac

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301B4V00R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303B4V00R | 635 nm (bright red) | 3 mW             | <30 mA            | 3R          |
| M4305B4V00R | 635 nm (bright red) | 5 mW             | <30 mA            | 3R          |
| M4310B4V00R | 635 nm (bright red) | 10 mW            | <60 mA            | 3B          |
| M4315B4V00R | 635 nm (bright red) | 15 mW            | <80 mA            | 3B          |
| M4320B4V00R | 635 nm (bright red) | 20 mW            | <80 mA            | 3B          |
| M4330B4V00R | 635 nm (bright red) | 30 mW            | <110 mA           | 3B          |
| M4501B4V00R | 650 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4503B4V00R | 650 nm (red)        | 3 mW             | <30 mA            | 3R          |
| M4505B4V00R | 650 nm (red)        | 5 mW             | <30 mA            | 3R          |
| M4701B4V00R | 670 nm (dark red)   | 1 mW             | <30 mA            | 3R          |
| M4703B4V00R | 670 nm (dark red)   | 3 mW             | <30 mA            | 3R          |
| M4705B4V00R | 670 nm (dark red)   | 5 mW             | <30 mA            | 3R          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt .Other optical projections available on request



## Laser beam emitter LT1S20/XG series, adjustable focus



**Type of projection:** Cross

**Supply voltage:** 9-36 Vdc 10-30 Vac

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301B4VX0R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303B4VX0R | 635 nm (bright red) | 3 mW             | <30 mA            | 2M          |
| M4305B4VX0R | 635 nm (bright red) | 5 mW             | <30 mA            | 2M          |
| M4310B4VX0R | 635 nm (bright red) | 10 mW            | <60 mA            | 2M          |
| M4315B4VX0R | 635 nm (bright red) | 15 mW            | <80 mA            | 2M          |
| M4320B4VX0R | 635 nm (bright red) | 20 mW            | <80 mA            | 2M          |
| M4330B4VX0R | 635 nm (bright red) | 30 mW            | <110 mA           | 2M          |
| M4501B4VX0R | 650 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4503B4VX0R | 650 nm (red)        | 3 mW             | <30 mA            | 2M          |
| M4505B4VX0R | 650 nm (red)        | 5 mW             | <30 mA            | 2M          |
| M4701B4VX0R | 670 nm (dark red)   | 1 mW             | <30 mA            | 2M          |
| M4703B4VX0R | 670 nm (dark red)   | 3 mW             | <30 mA            | 2M          |
| M4705B4VX0R | 670 nm (dark red)   | 5 mW             | <30 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. The cross (spread 10°) has a total wide of mm 160 at a distance of mm 1000 from the emission point, perpendicularly to laser beam. Cross lenses with spread 2°, 5°, 10°, 25°, 30°, 45°, 75° available. .Other optical projections available on request

## Laser beam emitter LT1S20/XG series, adjustable focus



**Type of projection:** Cross

**Supply voltage:** 9-36 Vdc 10-30 Vac Trigger 5-30Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301L4VX0R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303L4VX0R | 635 nm (bright red) | 3 mW             | <30 mA            | 2M          |
| M4305L4VX0R | 635 nm (bright red) | 5 mW             | <30 mA            | 2M          |
| M4310L4VX0R | 635 nm (bright red) | 10 mW            | <60 mA            | 2M          |
| M4315L4VX0R | 635 nm (bright red) | 15 mW            | <80 mA            | 2M          |
| M4320L4VX0R | 635 nm (bright red) | 20 mW            | <80 mA            | 2M          |
| M4330L4VX0R | 635 nm (bright red) | 30 mW            | <110 mA           | 2M          |
| M4340L4VX0R | 635 nm (bright red) | 40 mW            | <110 mA           | 3B          |
| M4350L4VX0R | 635 nm (bright red) | 50 mW            | <120 mA           | 3B          |
| M4601L4VX0R | 660 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4603L4VX0R | 660 nm (red)        | 3 mW             | <30 mA            | 2M          |
| M4605L4VX0R | 660 nm (red)        | 5 mW             | <40 mA            | 2M          |
| M4610L4VX0R | 660 nm (red)        | 10 mW            | <40 mA            | 2M          |
| M4620L4VX0R | 660 nm (red)        | 20 mW            | <50 mA            | 2M          |
| M4630L4VX0R | 660 nm (red)        | 30 mW            | <50 mA            | 2M          |
| M4640L4VX0R | 660 nm (red)        | 40 mW            | <60 mA            | 3B          |
| M4650L4VX0R | 660 nm (red)        | 50 mW            | <60 mA            | 3B          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from 50mm to 20m. The cross (spread 10°) has a total width of mm 160 at a distance of mm 1000 from the emission point, perpendicularly to laser beam. Cross lenses with spread 2°, 5°, 10°, 25°, 30°, 45°, 75° available. Other optical projections available on request

## Laser beam emitter LT1S20/XG series, adjustable focus



**Type of projection:** Cross

**Supply voltage:** 5 Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301A4VX0R | 635 nm (bright red) | 1 mW             | <40 mA            | 2           |
| M4303A4VX0R | 635 nm (bright red) | 3 mW             | <40 mA            | 2M          |
| M4305A4VX0R | 635 nm (bright red) | 5 mW             | <40 mA            | 2M          |
| M4310A4VX0R | 635 nm (bright red) | 10 mW            | <70 mA            | 2M          |
| M4315A4VX0R | 635 nm (bright red) | 15 mW            | <90 mA            | 2M          |
| M4320A4VX0R | 635 nm (bright red) | 20 mW            | <90 mA            | 2M          |
| M4330A4VX0R | 635 nm (bright red) | 30 mW            | <120 mA           | 2M          |
| M4501A4VX0R | 650 nm (red)        | 1 mW             | <40 mA            | 2           |
| M4503A4VX0R | 650 nm (red)        | 3 mW             | <40 mA            | 2M          |
| M4505A4VX0R | 650 nm (red)        | 5 mW             | <40 mA            | 2M          |
| M4701A4VX0R | 670 nm (dark red)   | 1 mW             | <50 mA            | 2M          |
| M4703A4VX0R | 670 nm (dark red)   | 3 mW             | <50 mA            | 2M          |
| M4705A4VX0R | 670 nm (dark red)   | 5 mW             | <50 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. The cross (spread 10°) has a total wide of mm 160 at a distance of mm 1000 from the emission point, perpendicularly to laser beam. Cross lenses with spread 2°, 5°, 10°, 25°, 30°, 45°, 75° available. .Other optical projections available on request

## Laser beam emitter LT1S20/CG series, adjustable focus



**Type of projection:** Circle

**Supply voltage:** 5 Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301A4VC0R | 635 nm (bright red) | 1 mW             | <40 mA            | 2           |
| M4303A4VC0R | 635 nm (bright red) | 3 mW             | <40 mA            | 2M          |
| M4305A4VC0R | 635 nm (bright red) | 5 mW             | <40 mA            | 2M          |
| M4310A4VC0R | 635 nm (bright red) | 10 mW            | <70 mA            | 2M          |
| M4315A4VC0R | 635 nm (bright red) | 15 mW            | <90 mA            | 2M          |
| M4320A4VC0R | 635 nm (bright red) | 20 mW            | <90 mA            | 2M          |
| M4330A4VC0R | 635 nm (bright red) | 30 mW            | <120 mA           | 2M          |
| M4501A4VC0R | 650 nm (red)        | 1 mW             | <40 mA            | 2           |
| M4503A4VC0R | 650 nm (red)        | 3 mW             | <40 mA            | 2M          |
| M4505A4VC0R | 650 nm (red)        | 5 mW             | <40 mA            | 2M          |
| M4701A4VC0R | 670 nm (dark red)   | 1 mW             | <50 mA            | 2M          |
| M4703A4VC0R | 670 nm (dark red)   | 3 mW             | <50 mA            | 2M          |
| M4705A4VC0R | 670 nm (dark red)   | 5 mW             | <50 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. The circle (spread 3°) has a central dot and a diameter of mm 40 at a distance of mm 1000 from the emission point. Circle lenses with spread 3°, 4°, 34°, 45° available. .Other optical projections available on request

## Laser beam emitter LT1S20/CG series, adjustable focus



**Type of projection:** Circle

**Supply voltage:** 9-36 Vdc 10-30 Vac Trigger 5-30Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301L4VC0R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303L4VC0R | 635 nm (bright red) | 3 mW             | <30 mA            | 2M          |
| M4305L4VC0R | 635 nm (bright red) | 5 mW             | <30 mA            | 2M          |
| M4310L4VC0R | 635 nm (bright red) | 10 mW            | <60 mA            | 2M          |
| M4315L4VC0R | 635 nm (bright red) | 15 mW            | <80 mA            | 2M          |
| M4320L4VC0R | 635 nm (bright red) | 20 mW            | <80 mA            | 2M          |
| M4330L4VC0R | 635 nm (bright red) | 30 mW            | <110 mA           | 2M          |
| M4340L4VC0R | 635 nm (bright red) | 40 mW            | <110 mA           | 3B          |
| M4350L4VC0R | 635 nm (bright red) | 50 mW            | <120 mA           | 3B          |
| M4601L4VC0R | 660 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4603L4VC0R | 660 nm (red)        | 3 mW             | <30 mA            | 2M          |
| M4605L4VC0R | 660 nm (red)        | 5 mW             | <40 mA            | 2M          |
| M4610L4VC0R | 660 nm (red)        | 10 mW            | <40 mA            | 2M          |
| M4620L4VC0R | 660 nm (red)        | 20 mW            | <50 mA            | 2M          |
| M4630L4VC0R | 660 nm (red)        | 30 mW            | <50 mA            | 2M          |
| M4640L4VC0R | 660 nm (red)        | 40 mW            | <60 mA            | 3B          |
| M4650L4VC0R | 660 nm (red)        | 50 mW            | <60 mA            | 3B          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from 50mm to 20m. The circle (spread 3°) has a central dot and a diameter of mm 40 at a distance of mm 1000 from the emission point. Circle lenses with spread 3°, 4°, 34°, 45° available. Other optical projections available on request



## Laser beam emitter LT1S20/CG series, adjustable focus



**Type of projection:** Circle

**Supply voltage:** 9-36 Vdc 10-30 Vac

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Operating current | Laser class |
|-------------|---------------------|------------------|-------------------|-------------|
| M4301B4VC0R | 635 nm (bright red) | 1 mW             | <30 mA            | 2           |
| M4303B4VC0R | 635 nm (bright red) | 3 mW             | <30 mA            | 2M          |
| M4305B4VC0R | 635 nm (bright red) | 5 mW             | <30 mA            | 2M          |
| M4310B4VC0R | 635 nm (bright red) | 10 mW            | <60 mA            | 2M          |
| M4315B4VC0R | 635 nm (bright red) | 15 mW            | <80 mA            | 2M          |
| M4320B4VC0R | 635 nm (bright red) | 20 mW            | <80 mA            | 2M          |
| M4330B4VC0R | 635 nm (bright red) | 30 mW            | <110 mA           | 2M          |
| M4501B4VC0R | 650 nm (red)        | 1 mW             | <30 mA            | 2           |
| M4503B4VC0R | 650 nm (red)        | 3 mW             | <30 mA            | 2M          |
| M4505B4VC0R | 650 nm (red)        | 5 mW             | <30 mA            | 2M          |
| M4701B4VC0R | 670 nm (dark red)   | 1 mW             | <30 mA            | 2M          |
| M4703B4VC0R | 670 nm (dark red)   | 3 mW             | <30 mA            | 2M          |
| M4705B4VC0R | 670 nm (dark red)   | 5 mW             | <30 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. The circle (spread 3°) has a central dot and a diameter of mm 40 at a distance of mm 1000 from the emission point. Circle lenses with spread 3°, 4°, 34°, 45° available. .Other optical projections available on request

## Cutting guide line laser LT1S20/LG series, adjustable focus



**Type of projection:** Line

**Supply voltage:** 9-36 Vdc 10-30 Vac Trigger 5-30Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Linelength | Operating current | Laser class |
|-------------|---------------------|------------------|------------|-------------------|-------------|
| M4301L4VL0R | 635 nm (bright red) | 1 mW             | Max 1,5mt  | <30 mA            | 2           |
| M4303L4VL0R | 635 nm (bright red) | 3 mW             | Max 2mt    | <30 mA            | 2M          |
| M4305L4VL0R | 635 nm (bright red) | 5 mW             | Max 2,5mt  | <30 mA            | 2M          |
| M4310L4VL0R | 635 nm (bright red) | 10 mW            | Max 5mt    | <60 mA            | 2M          |
| M4315L4VL0R | 635 nm (bright red) | 15 mW            | Max 6mt    | <80 mA            | 2M          |
| M4320L4VL0R | 635 nm (bright red) | 20 mW            | Max 7mt    | <80 mA            | 2M          |
| M4330L4VL0R | 635 nm (bright red) | 30 mW            | Max 9mt    | <110 mA           | 2M          |
| M4340L4VL0R | 635 nm (bright red) | 40 mW            | Max 10mt   | <110 mA           | 3B          |
| M4350L4VL0R | 635 nm (bright red) | 50 mW            | Max 11mt   | <120 mA           | 3B          |
| M4601L4VL0R | 660 nm (red)        | 1 mW             | Max 1mt    | <30 mA            | 2           |
| M4603L4VL0R | 660 nm (red)        | 3 mW             | Max 1mt    | <30 mA            | 2M          |
| M4605L4VL0R | 660 nm (red)        | 5 mW             | Max 1,5mt  | <40 mA            | 2M          |
| M4610L4VL0R | 660 nm (red)        | 10 mW            | Max 4mt    | <40 mA            | 2M          |
| M4620L4VL0R | 660 nm (red)        | 20 mW            | Max 6mt    | <50 mA            | 2M          |
| M4630L4VL0R | 660 nm (red)        | 30 mW            | Max 8mt    | <50 mA            | 2M          |
| M4640L4VL0R | 660 nm (red)        | 40 mW            | Max 9mt    | <60 mA            | 3B          |
| M4650L4VL0R | 660 nm (red)        | 50 mW            | Max 10mt   | <60 mA            | 3B          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. Line lenses with spread 5°, 20°, 30°, 45°, 90° available. The line has a wide, at a distance of mm 1000 from the emission point and perpendicularly to laser beam, as it follows: 05° spread = mm 70 ; 20° spread = mm 310 ; 30° spread = mm 660 ; 45° spread = 800mm; 90° spread = mm 1800. You have to specify the spread that you wish. If not specified, emitter is shipped with a 90° spread lens. The visibility and the length of the line depend on the mounting of the laser and the brightness of the environment. Other optical projections available on request

## Cutting guide line laser LT1S20/LG series, adjustable focus



**Type of projection:** Line

**Supply voltage:** 9-36 Vdc 10-30 Vac

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Linelength | Operating current | Laser class |
|-------------|---------------------|------------------|------------|-------------------|-------------|
| M4301B4VL0R | 635 nm (bright red) | 1 mW             | Max 1,5mt  | <30 mA            | 2           |
| M4303B4VL0R | 635 nm (bright red) | 3 mW             | Max 2mt    | <30 mA            | 2M          |
| M4305B4VL0R | 635 nm (bright red) | 5 mW             | Max 2,5mt  | <30 mA            | 2M          |
| M4310B4VL0R | 635 nm (bright red) | 10 mW            | Max 5mt    | <60 mA            | 2M          |
| M4315B4VL0R | 635 nm (bright red) | 15 mW            | Max 6mt    | <80 mA            | 2M          |
| M4320B4VL0R | 635 nm (bright red) | 20 mW            | Max 7mt    | <80 mA            | 2M          |
| M4330B4VL0R | 635 nm (bright red) | 30 mW            | Max 9mt    | <110 mA           | 2M          |
| M4501B4VL0R | 650 nm (red)        | 1 mW             | Max 1mt    | <30 mA            | 2           |
| M4503B4VL0R | 650 nm (red)        | 3 mW             | Max 1,5mt  | <30 mA            | 2M          |
| M4505B4VL0R | 650 nm (red)        | 5 mW             | Max 2mt    | <30 mA            | 2M          |
| M4701B4VL0R | 670 nm (dark red)   | 1 mW             | Max 1mt    | <30 mA            | 2M          |
| M4703B4VL0R | 670 nm (dark red)   | 3 mW             | Max 1,2mt  | <30 mA            | 2M          |
| M4705B4VL0R | 670 nm (dark red)   | 5 mW             | Max 1,5mt  | <30 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. Line lenses with spread 5°, 20°, 30°, 45°, 90° available. The line has a wide, at a distance of mm 1000 from the emission point and perpendicularly to laser beam, as it follows: 05° spread = mm 70 ; 20° spread = mm 310 ; 30° spread = mm 660 ; 45° spread = 800mm; 90° spread = mm 1800. You have to specify the spread that you wish. If not specified, emitter is shipped with a 90° spread lens. The visibility and the length of the line depend on the mounting of the laser and the brightness of the environment. Other optical projections available on request

## Cutting guide line laser LT1S20/LG series, adjustable focus



**Type of projection:** Line

**Supply voltage:** 5 Vdc

**Connection:** M12 connector + cm 500 cable

**Light source:** Laser diode

**Casing:** Green anod.alum.

**Dimension:** 20x135 mm

**Protection class:** IP67

**Storage temperature °C/°F:** -40 +85 °C / -40 +185 °F

**Operating temperature °C/°F:** -10 +50 °C / 14 +122 °F

| Code        | Wavelength          | Max output power | Linelength | Operating current | Laser class |
|-------------|---------------------|------------------|------------|-------------------|-------------|
| M4301A4VL0R | 635 nm (bright red) | 1 mW             | Max 1,5mt  | <40 mA            | 2           |
| M4303A4VL0R | 635 nm (bright red) | 3 mW             | Max 2mt    | <40 mA            | 2M          |
| M4305A4VL0R | 635 nm (bright red) | 5 mW             | Max 2,5mt  | <40 mA            | 2M          |
| M4310A4VL0R | 635 nm (bright red) | 10 mW            | Max 5mt    | <70 mA            | 2M          |
| M4315A4VL0R | 635 nm (bright red) | 15 mW            | Max 6mt    | <90 mA            | 2M          |
| M4320A4VL0R | 635 nm (bright red) | 20 mW            | Max 7mt    | <90 mA            | 2M          |
| M4330A4VL0R | 635 nm (bright red) | 30 mW            | Max 9mt    | <120 mA           | 2M          |
| M4501A4VL0R | 650 nm (red)        | 1 mW             | Max 1mt    | <40 mA            | 2           |
| M4503A4VL0R | 650 nm (red)        | 3 mW             | Max 1,5mt  | <40 mA            | 2M          |
| M4505A4VL0R | 650 nm (red)        | 5 mW             | Max 2mt    | <40 mA            | 2M          |
| M4701A4VL0R | 670 nm (dark red)   | 1 mW             | Max 1mt    | <50 mA            | 2M          |
| M4703A4VL0R | 670 nm (dark red)   | 3 mW             | Max 1,2mt  | <50 mA            | 2M          |
| M4705A4VL0R | 670 nm (dark red)   | 5 mW             | Max 1,5mt  | <50 mA            | 2M          |

The lasers comply with the CEI EN 60825-1 standard, CEI 76-2 classification.

### Note

Focal length and the projected figure thickness are manually adjustable with the steel ring from ? 50mm to 20mt. Line lenses with spread 5°, 20°, 30°, 45°, 90° available. The line has a wide, at a distance of mm 1000 from the emission point and perpendicularly to laser beam, as it follows: 05° spread = mm 70 ; 20° spread = mm 310 ; 30° spread = mm 660 ; 45° spread = 800mm; 90° spread = mm 1800. You have to specify the spread that you wish. If not specified, emitter is shipped with a 90° spread lens. The visibility and the length of the line depend on the mounting of the laser and the brightness of the environment. Other optical projections available on request

## Related accessories



### 9A0000601

Stabilized power supplier, input 80-30Vac-Vdc, output 5Vdc, 1A DIN attachment



### 9A0000701

Stabilized power supplier input 85-265Vac, output 5Vdc, 600mA, schuco plug



### 9A0000901

Stabilized power supplier input 100-240Vdc, output 5Vdc, 3A, DIN attachment



### 9PP2001N00

Dimming flap 20 mm diam, black



### 9SI2001N00

Reclining bracket for 20 mm diam module, black



### 9SA2002A00

Inox rod diam mm 20x295, side milled, fixing holes (to be used with brackets 9SM2001N00 - 9SM5001N00)



### 9SM2001N00

Horiz/vert twistable bracket for 20 mm diam module, black anod. alum., mountable on 20 mm diam rod



### 9SM2002N00

Adjustable bracket for 20 mm diam module, flat, black, 12 mm diam inox rod included



### 9PT2001B00

Protection for 20 mm diam module - white





## Safety classes

### CLASS 1

Laser Safety Classes Laser products that are safe in use, including direct and prolonged beam viewing, even when using telescopic optics. Class 1 laser devices, in the wavelength range between 400 nm and 700 nm, do not require any safety instruments or interlocks. For class 1 laser products, direct beam viewing may still cause temporary dazzling, especially in poorly lit environments.

### CLASS 2

Laser products safe for momentary exposures. Eye protection is normally assured by natural aversion behaviour including blinking for a short exposure time (0.25s). Class 2 lasers may become hazardous in the event of direct and prolonged beam viewing. Class 2 laser devices, in the wavelength range between 400 nm and 700 nm, do not require any key switches or safety interlocks for operation. For class 2, unlike class 2M, the use of optical instruments does not increase the risk of eye injuries. Do not stare into the beam.

### CLASS 2M

Normally safe laser products. Class 2M laser devices, in the wavelength range between 400 nm and 700 nm, do not require any key switches or safety devices for operation. Eye protection is normally assured by natural aversion behaviour including blinking for a short exposure time (0.25s). Direct viewing of class 2M laser devices using optics such as binoculars, telescopes, microscopes, etc. may be hazardous. Do not stare into the beam and/or view it using instruments.

### CLASS 3R

The accessible radiation of class 3R laser products is potentially hazardous. Laser products that emit radiation which may exceed the MPE (maximum permissible exposure) under direct intrabeam viewing but the risk of injury is relatively low in most cases. Class 3R laser devices, in the wavelength range between 400 nm and 700 nm, do not require any key switches or safety devices for operation. Avoid direct eye exposure. Do not stare into the beam of optics (such as binoculars, telescopes, microscopes, etc.).

### CLASS 3B

Laser products that are normally hazardous when directly viewing the beam (i.e. within the NOHD - Nominal Ocular Hazard Distance), including accidental short time exposure. Wear eye protection when directly viewing the beam. Viewing diffuse reflections is normally safe. The conditions for safely viewing diffuse reflections for class 3B lasers are: minimum viewing distance 13 cm for a maximum exposure time of 10 seconds. Every class 3B laser system must be fitted with a signalling device when the laser is in operation (The signalling device may be audible or visual).

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