**B.L.S. Industrial Laser Systems**

# Laser RD Series

## The "Classic"

Diode lasers of RD series are designed for industrial applications. They evolved from the successful LAP R-series. RD lasers stand the test of harsh environment day by day, year after year. They offer the widest range of variations and accessories.

The laser beam is collimated for optimum spot size/line width at typical working distance. You may get optics for spots, lines, cross-lines, in different positions to the housing.

A strong, cylindrical housing of coated aluminium protects laser diode, optics and electronic circuitry. RD-lasers are ready for direct connection to 230 V AC. They are highly resistant against mains transients and power variations.

The predecessor of nowadays RD-lasers, the R-series, are equipped with HeNe-lasers.
Because of the glass tubes and the high voltage they are more complex and less resistant to mechanical stress than diode lasers.
Of course we still handle and maintain these lasers.

## Technical Variations

### Standard Models Line Lasers

| Model | Output Power | Length of line up to | Laser Class |
|---|---|---|---|
| LAP1RDL | 1 mW | 1 m | 2 |
| LAP3RDL | 3 mW | 2 m | 2 (3A)* |
| LAP5RDL | 5 mW | 4 m | 3A |
| LAP10RDL | 10 mW | 7 m | 3A |
| LAP15RDL | 15 mW | 11 m | 3A |
| LAP30RDL | 30 mW | 20 m | 3A |

### Standard Models Spot Lasers

| Model | Output Power | Laser Class |
|---|---|---|
| LAP1RDP | 1 mW | 2 |
| LAP3RDP | 3 mW | 3B |
| LAP5RDP | 5 mW | 3B |
| LAP10RDP | 10 mW | 3B |
| LAP15RDP | 15 mW | 3B |
| LAP30RDP | 30 mW | 3B |

### Standard Models Cross-line Lasers

| Model | Output Power | Length of line up to | Laser Class |
|---|---|---|---|
| LAP_RDX | see above | on demand | 2 / 3A / 3B |

( )* possible with special optics

Technical Terms
for LAP-lasers:

"LAP"
"Power"
"Series"
"Optics, if selectable"
"Details"

A **LAP**-laser
with **5** mW
of **RD**-Series
with **L**ine optics
**without** further details

**is named**

LAP5RDL

## Technial Data

| | |
|---|---|
| Laser Type | Diode |
| Wavelength | 635 nm, rot |
| Divergence | 0,5 mrad |
| Beam Diameter at Exit | 5 x 2 mm |
| Range of Focussing | from 30 mm to 8 |
| Input Voltage | 230 V AC ±10% |
| Power Consumption | max. 1,5 W |
| Protection | IP 54 |
| Operating Temperature | -10 °C to +40 °C |
| estimated Lifetime | > 20.000 h at 25 °C |
| Fuse, control lamp, overvoltage protection | |

## Accessories

**Input Voltage**
110 V AC, 5 V DC

**90°-optics**
turns output beams perpendicular to housing axis

**Bracket B1**
Bracket for fine adjustment (+/- 2 mm),
rotation and translation in all directions

**Bracket B2**
Fix standard bracket for bar Ø 25 mm or 22 mm
adjustment: rotation around laser axis, rotation up/down (360°)

**Bracket B2-F**
like B2, additional rapid-fix handle

**Bracket B2-J**
like B2, additional adjustment rotation left/right (+/- 5°)

**Bracket B3**
like B2, additional support with precision adjustment left/right

**Bracket B4**
like B3, additional side support with precision adjustment up/down

**Bracket B5**
like B4, additional cylindrical support with precision adjustment for rotation around laser axis

**Special brackets and positioning systems**

**Brackets for certain machinery, mounting sets**

**Special Optics**

**Diaphragms**

**Special Housings**

**other wavelengths and output powers**

**OEM-versions**