

|       |          |                  |                    |                  |
|-------|----------|------------------|--------------------|------------------|
| IP 67 | 9-24 VDC | Diode Technology | Digital Modulation | Point Line Cross |
|-------|----------|------------------|--------------------|------------------|

## Delta VX Series

The lasers of the Delta VX series are intended for meticulous positioning in applications for part processing. This laser series is equipped with green and red wavelengths and laser head sizes Ø20mm with M18x1 thread. The laser electronics are available in different versions depending on the requirements. The Delta VX series is offered with a digital modulation of up to 5 kHz and temperature protection against overheating. An easy-to-use focusing mechanics, optical output power up to 170mW, and IP67 water and dust protection are standard features of this product series. The power supply voltage of the laser is from 9V DC to 24V DC.

The consumption depends on the power of the laser.

As standard, a 2.5m long cable is attached to the laser but it can be extended to 5m / 10m / 15m.

### OVERVIEW

- Thread M18 x 1
- Solid industrial enclosure
- Degree of protection: IP67
- Wavelength: 505nm - 640nm
- Power: up to 170mW
- Digital Modulation
- Thin & bright line
- Manual or Fixed focus
- Precision optics
- Temperature protection
- Electrical isolated

### Applications

- Alignment and positioning
- 3D contour mapping
- Process control
- Machine vision
- Measuring systems
- High-speed industrial inspection

SKU / Order code:

| Model |   | Wavelength |   | Optical Power |   | Projection Profile | Projection Optics | Focus |
|-------|---|------------|---|---------------|---|--------------------|-------------------|-------|
| DL-VX | - | XXX        | - | XXX           | - | XX                 | XX                | XX    |

\*Example: DL – VX – 520 – 10 - B2 - PL(60°) - MF

### Technical specifications:

| Wavelength (nm)       | 505       | 515       | 520       |           |           |           | 635       | 638        | 640       |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| Optical power (mW)    | ≤35       | ≤35       | ≤10       | ≤20       | ≤50       | ≤80       | ≤5, ≤30   | ≤100, ≤170 | ≤90       |
| Laser class           | 3A        | 3A        | 3A        | 3A        | 3A        | 3R        | 3A        | 3R         | 3R        |
| Technology            | Diode     | Diode     | Diode     | Diode     | Diode     | Diode     | Diode     | Diode      | Diode     |
| Operating temperature | -10° +60° | -10° +60° | -20° +60° | -20° +60° | -20° +60° | -10° +60° | -20° +60° | -20° +60°  | 0° + 60°  |
| Storage temperature   | -40° +85° | -40° +85° | -40° +85° | -40° +85° | -40° +85° | -40° +85° | -40° +85° | -40° +85°  | -20° +85° |

### Electrical specifications:

|                                  |          |          |          |          |          |          |          |          |          |
|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Input voltage                    | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC | 9-24V DC |
| Operating current                | 60mA     | 75mA     | 50mA     | 60mA     | 120mA    | 170mA    | 45mA     | 120mA    | 90mA     |
| Protection from high temperature | -        | -        | -        | -        | ✓        | ✓        |          | ✓        |          |

Electrical protection Protection from polarity reversal, Overvoltage protection

Electrical isolation Potential-free housing

Connection 4-pin M12 connector, cable length: 2,5m, 5m, 10m, 15m

Input voltage polarity "PIN 3" Blue color (-), "PIN1" Brown color (+)

### Optical specifications:

|                     |   |
|---------------------|---|
| Projection profiles | <b>*(B1)</b> Point <b>*(B2)</b> Line <b>*(B3)</b> Cross                       |
| Gaussian line       | <b>*(CL)</b> 90° – 110° (gaussian lines profile)                              |
| Homogeneous line    | <b>*(PL)</b> homogeneous lines with fan angle - 20°, 30°, 45°, 60°, 90°, 110° |
| Focus               | <b>*(MF)</b> Manual focus <b>*(F)</b> Fixed focus                             |
| DOE projection      | Grid, Crossed lines, Circle (on request)                                      |

### Electrical variants:

Digital modulation (PWM) 0V - 3,3V/5V/Vin, 5 kHz (upon request)

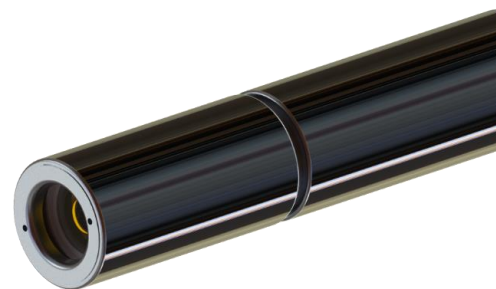
### Mechanical specification:

Dimensions (mm) Laser head diameter: Ø20  
Length: 146mm with fixed focus  
Length: 140mm with manual focus

Weight (g.) 120

Material Aluminum

Protection rating IP67



Laser Head Drawing

\*All size are mm

