



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

Delta V Series

The lasers of the Delta V series are intended for meticulous positioning in applications for part processing. This series of lasers are available in green and red with an output power of up to 170mW with fixed focus. Laser head Ø20mm easy to mount and adjust can be used in various ways. These laser modules are used to project point, gaussian/homogeneous lines, multi-lines, and crosses in image processing. Another feature of V series lasers is a high degree of protection against dust and water, robust vibration-resistant mechanics, long service life, and precision optical components. The input power supply voltage of the laser is 9V DC to 24V DC. The laser electronics are available in different versions depending on the requirements. The Delta V series is offered with a digital modulation of up to 5 kHz and a temperature protection against overheating. As standard, a 2.5m long cable is attached to the laser but it can be extended to 5m / 10m / 15m.

OVERVIEW

- Solid industrial enclosure
- Degree of protection: IP67
- Wavelength: 505nm - 640nm
- Power: up to 170mW
- Digital Modulation
- Thin & bright line
- Fixed focus
- Precision optics
- Temperature protection

Applications

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

SKU / Order code:

Model	Wavelength		Optical Power		Connection		Projection Profile	Projection Optics
DL-V-	XXX	-	XXX	-	XX	-	XX	XX

*Example: DL-V-520-10-P1-B2-PL(60°)

Technical specifications:

Wavelength (nm)	505	515	520				635	638	640
Optical power (mW)	≤35	≤35	≤10	≤20	≤50	≤80	≤5, ≤30	≤100, ≤170	≤30, 50, 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	100mA	80mA	50mA	120mA	100mA	120mA	45mA	120mA	70mA
Protection from high temperature	-	-	-	-	✓	✓		✓	✓

Electrical protection Protection from polarity reversal, Overvoltage protection

Connection ***(P1)** Metal cable gland/fitting ***(P2 - angled 45°, straight)** M12, 4-pin connector, cable length: 2,5m, 5m, 10m, 15m

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

Optical specifications:

Projection profiles ***(B1)** Point ***(B2)** Line ***(B3)** Cross

Standard Line Optics ***(CL)** 90° – 110° (gaussian linear profile)

Precise Line Optics ***(PL)** homogeneous precise line optics with fan angle - 30°, 45°, 60°, 90°, 110°

Focus 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: 143mm

Weight (g.) 55

Material Anodized Aluminum

Protection rating IP67

Laser Head Drawing

*All size are mm

Connection: *(P1) Metal cable gland/fitting



Connection: *(P2 - angled 45°) M12, 4-pin industrial connector



Connection: *(P2 - straight 90°) M12, 4-pin industrial connector

