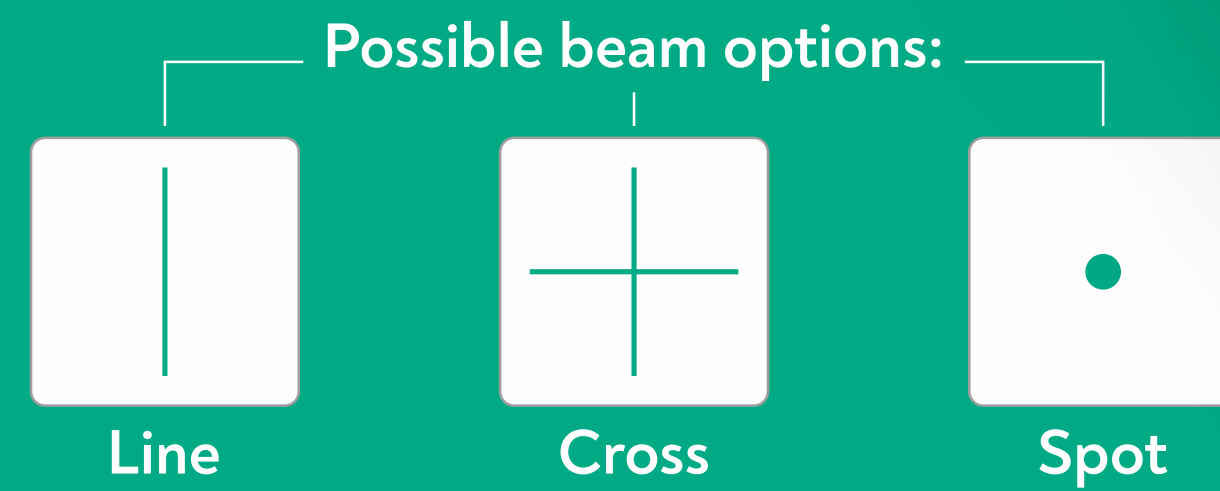


DELTA F Series

positioning lasers

PRODUCT DATASHEET

- Applications
- Features
- Specifications
- Connectors & Glands
- Mounts
- User's Manual



Certified Dust & Water Protection	9 - 24 V	LD Technology	Shock Resistant	Line Cross Spot	Definition of Safety Areas	3D Measurements	High-Precision Positioning & Alignment
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DELTA F Series

The **DELTA F Series lasers** are designed for highly precise positioning in industrial part-processing applications. The series is available with red, green, blue, and IR laser diodes in a compact Ø25 mm laser head, offering optical output power from 1 mW to 200 mW with fixed focus and a wide 9–24 V DC supply range.

The anodized aluminum Ø25 mm housing is optimized for maximum heat dissipation and can be combined with aluminum mounting brackets. This laser head offers the flexibility to project line, cross, Gaussian or Uniform laser profiles with opening angles ranging from 5° to 110°, and also supports DOE projection profiles, such as circle, grid, square, and intersecting line patterns, for advanced alignment applications.

SKU:/ Order Code

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

Example: SKU: DL-F-520-100-P1-B2-PL(60°)

Overview

- Solid industrial enclosure
- Thin and bright laser line
- Temperature protection
- Degree of protection: IP67
- Wavelength range: 445–638 nm
- Optical output power: up to 200 mW
- Digital modulation
- Fixed focus optics
- Precision optics
- Electrically isolated housing

Applications

- Alignment and positioning
- Measuring and gauging systems
- Woodworking and material processing
- 3D contour mapping
- Safety and guidance systems
- Floor marking

Technical Specifications

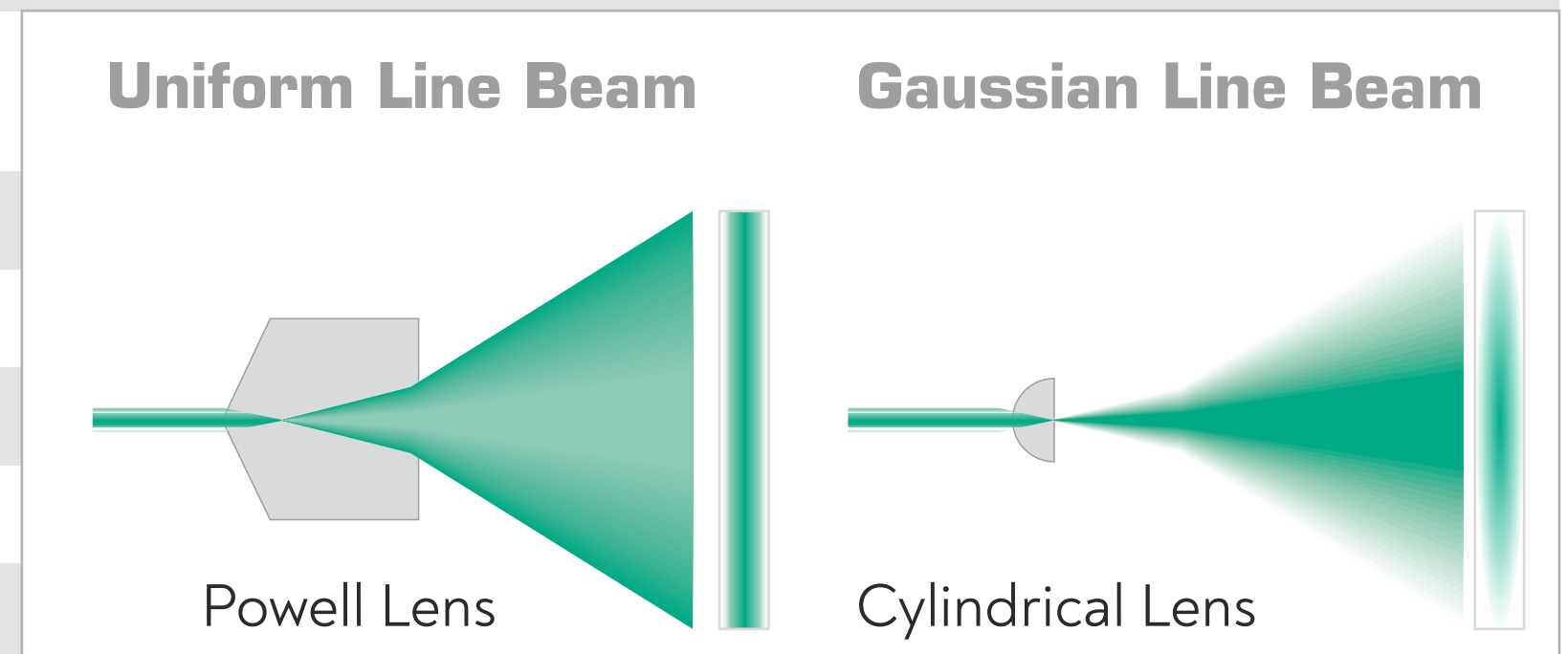
Wavelength, nm	● 445	● 505	● 520	● 520	● 520	● 520	● 635	● 638
Optical power, mW	≤20, ≤100	≤35	≤20	≤5, ≤50	≤80, ≤100	≤150, ≤200	≤5, ≤35	≤100, ≤170
Laser class	2 ~ 3R	2	1	1 ~ 2M	2M ~ 3R	3R	1 ~ 2	2M ~ 3R
Technology	Diode	Diode	Diode	Diode	Diode	Diode	Diode	Diode
Operating temperature, °C	-10 ~ +70	-10 ~ +60	-20 ~ +60	-20 ~ +60	-20 ~ +60	-10 ~ +60	-20 ~ +60	-20 ~ +65
Storage temperature, °C	-20 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +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
Operating current	90 mA	60 mA	50 mA	60 mA	120 mA	170 mA	45 mA	120 mA
Protection from high temperature	yes	no	no	no	yes	yes	no	yes
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 (+)							

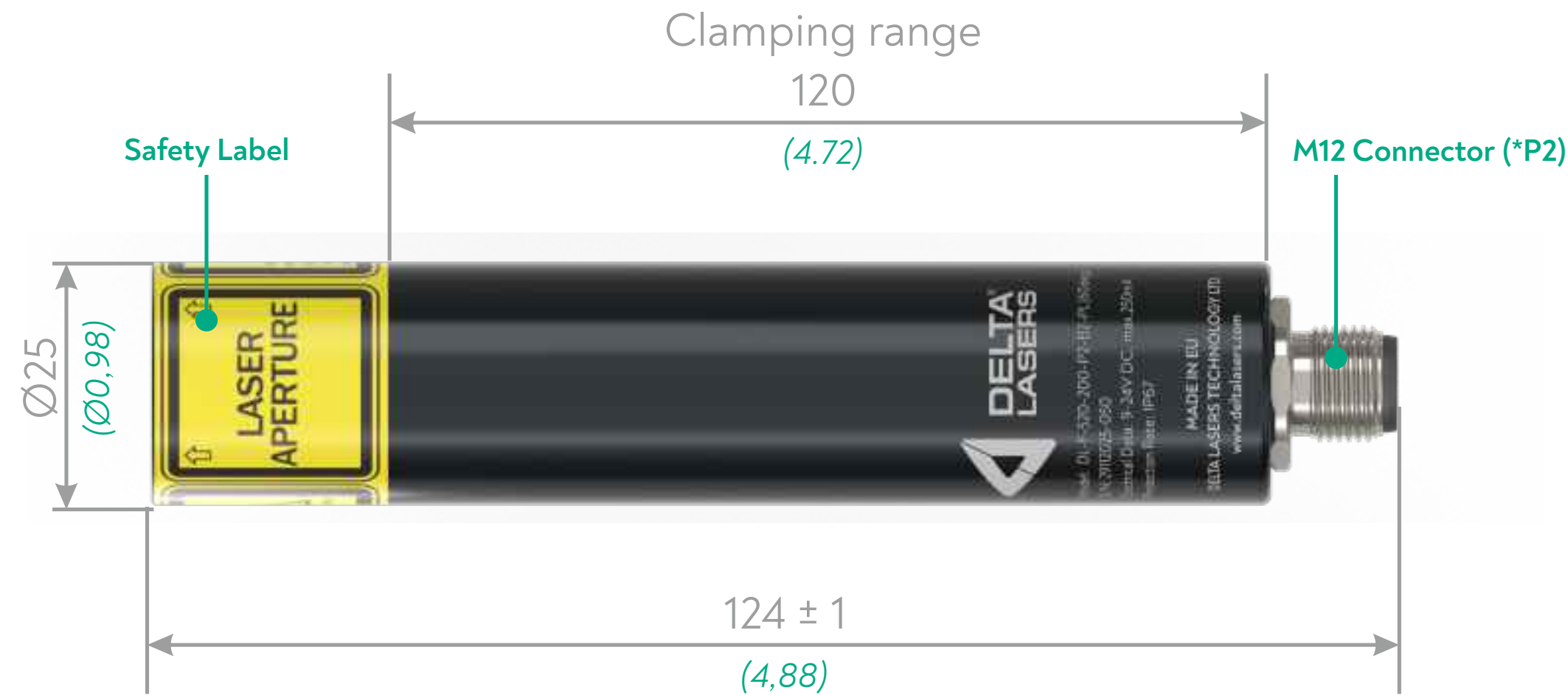
Optical Specifications

Projection profiles	*(B1) Point *(B2) Line *(B3) Cross
Gaussian line	*(CL) 90° – 110° (Gaussian lines profile)
Homogeneous line	*(PL) homogeneous lines with fan angle - 5°, 20°, 30°, 45°, 60°, 90°, 110°
Focus	Fixed focus
DOE projection	Grid, Crossed lines, Circle, Square (on request)



Drawing Specifications

All sizes are in mm (inches).



Mechanical Specifications

Dimensions, mm	Laser head diameter: Ø25 mm Length: 124 mm with *P2 version Length: 130 mm with *P1 version
Weight, g	125
Material	Anodized aluminum
Protection rating	Grid, Crossed lines, Circle (on request)

Connectors & Glands

4-pin M12 connector



P1 Connection



P2 Connection



Mounts



SKU: SF-25
Model SF-25

Durable aluminum mount for 25 mm laser modules, compatible with Delta F Series. 360° rotation, 180° vertical adjustment, and 4 fine-adjustment hex screws for precise alignment.



SKU: HFM-25
Model HFM-25

Compatible with Delta F Series 25 mm laser modules, suitable for higher-power lasers with efficient heat dissipation, featuring 90° adjustment and mounting slots up to M6.



SKU: VFM-L-25
Model VFM-L-25

Aluminum mount for Ø25 mm laser modules with 90° tilt adjustment, optimized heat dissipation, and mounting slots for M6 fasteners.



SKU: VFM-25
Model VFM-25

Aluminum mount for Ø25 mm laser modules with 90° tilt adjustment, optimized heat dissipation, and mounting slots for M4 fasteners.



SKU: CF-25
Model CF-25

Wall-mounted aluminum bracket for Delta F Series Ø25 mm positioning lasers, designed for CNC stone-cutting machines, featuring 150 mm X-axis adjustment, full 360° rotation, and precise M4 hex screws fine regulation.



SKU: SF-CR-25
Model SF-CR-25

Durable aluminum mount for 25mm laser modules, compatible with Delta F Series, designed for mounting two laser heads to project a precise cross profile, featuring stable fixing, 360° rotation, and 4 hex fine-adjustment screws for accurate alignment.



SKU: SHK-35
Line Alignment Shutter SHK-35

Laser line alignment accessory used as a line limiter for precise positioning and boundary control.