



**Adjustable  
line  
length**

**Green,  
Red or Blue  
color**

**Projection  
angle  
30° ~ 110°**

**Class 3R**

## Delta FM Laser

Powerful laser projector for the projection of road markings in the industry. Delta FM Series is a laser system for line projection with multifunctional industrial applications. It is easy to install and adjust, with the capability to adjust the length of the projection line and to adjust the line thickness in advance. The Delta FM Series is classified as a 3R laser class. It is ideal for industrial applications that require a sufficiently powerful laser to project bright lines over long distances. It is safe enough so special safety goggles are not needed. Delta Field Master Series is available in Green color 520-530nm, Red color 638nm, Blue color 445nm.

### FEATURES

- Laser power up to 1400mW
- Protection rating IP65
- Installation in the open or inside building.
- Solid enclosure
- Bright and saturated line
- Easy to install
- Precise mount, rotatable at 360°
- Temperature regulation of the fans
- Active TEC cooling
- Heating control
- Microprocessor control

### APPLICATIONS


- Replacement of traditional zones or painted paths
- Creation of lines in applications where tape or paint do not work (dusty, cold, dirty work areas)
- Definition of pedestrian and forklift areas
- Securing of overhead cranes and zones
- Definition of areas for semi-trailer docks



### Technical specifications

Wavelength (nm)	<b>Green 530±5</b>	<b>Red 638</b>
Laser power (mW)	≤1000, ≤1400	≤1200
Laser class	3R	3R
Technology	Diode	Diode
Operating temperature	-45°C ~ +50°C	-45°C ~ +50°C
Storage temperature	-40°C ~ +85°C	-40°C ~ +85°C
Cooling	TEC	TEC
Expected lifetime (MTTF)	>30,000 hour	>30,000 hour
Warranty	24 months	24 months

### Electrical specifications

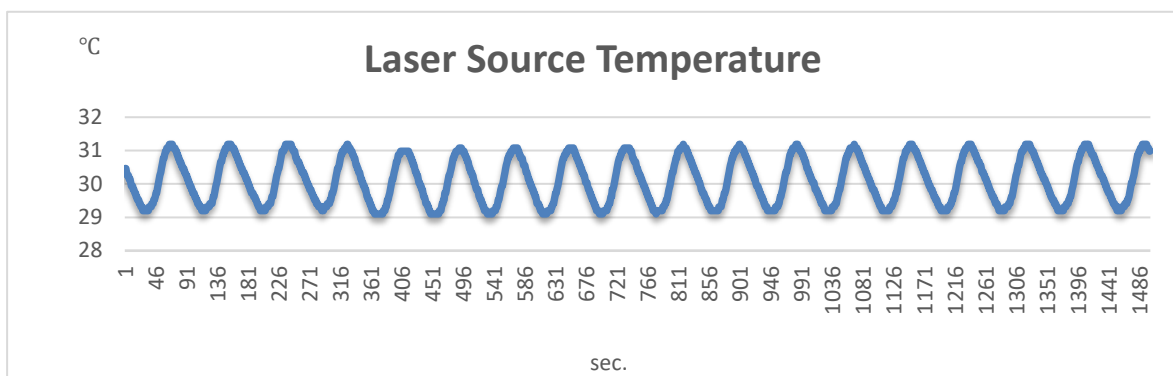
Input voltage	90 – 265 VAC, 50/60 Hz
Input current	1.8A/115V, 1A/230V
Input signal interlock	5V DC ~ 24V DC laser on/off
	
Temperature protection	Yes
Fuse	2A at 230V
Connection	Metal gland
Power cable length	5m/10m/15m/20m (on request)

### Optical specifications

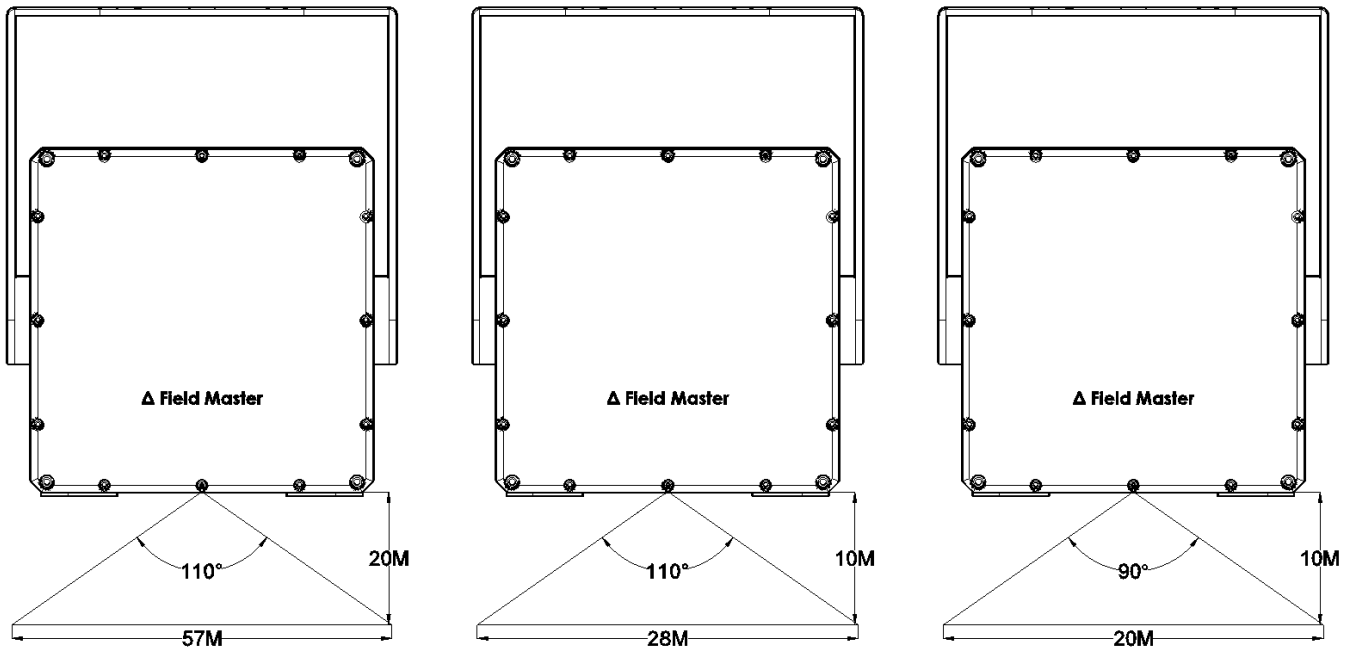
Projection lens	Angle 30 °, 45 °, 60 °, 90 °, 110 ° (on request)
Focus	manual (on request)
Line thickness	10 ~ 70mm
DOE projection	Circle, Cross, Grating, Square (on request)

### Mechanical specifications

Dimensions (mm)	182 x 160 x 117
Safety ring	2 x DIN 580
Weight	5kg
Protection rating	IP65



**Projection angle and line length**



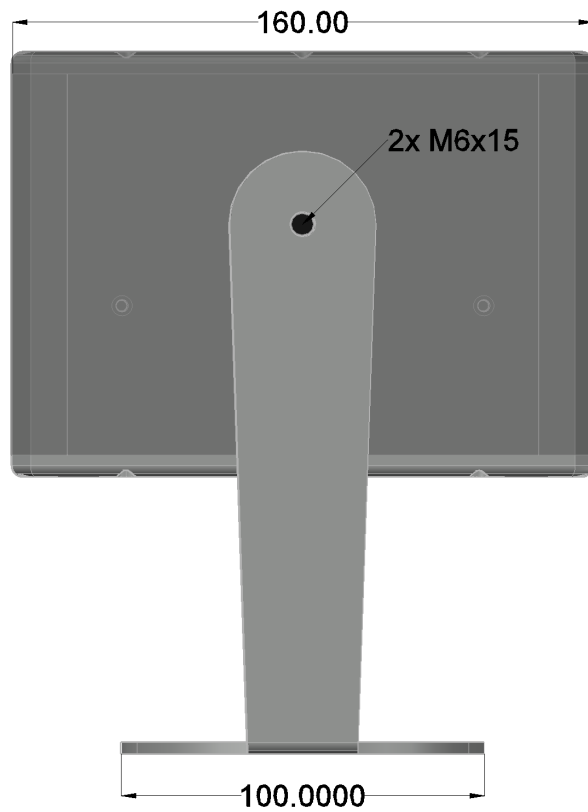
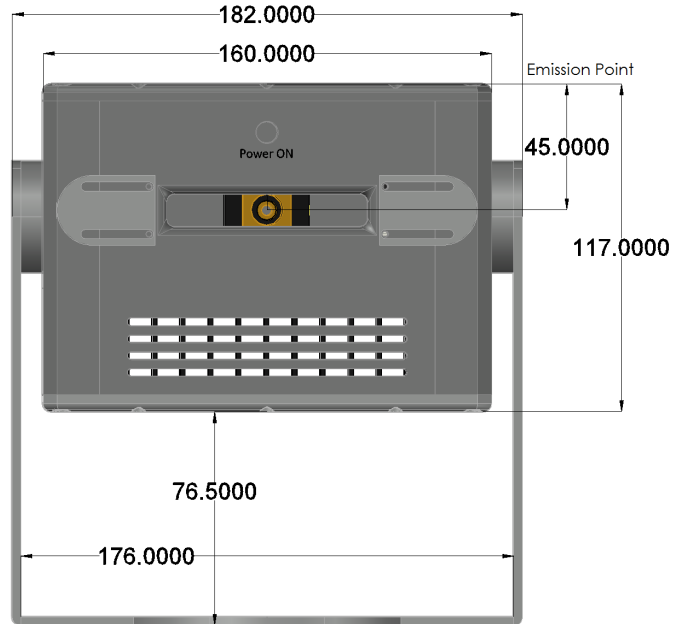
**LINE LENGTH**

Depending on the particular use case, modules with different beam angles can be selected, which generates the length of the laser line. The larger the beam angle, the longer the line will be.

Angle: Distance Line length approx.

45°	5m	4.25m
60°	5m	5.80m
90°	5m	10m
110°	5m	15m

**Dimensions(mm) Delta FM Laser**





## User manual

### Attention:

This product guide contains important information for the safe installation and use of this product. Please, read and follow these instructions carefully. Keep this manual in a safe place for future reference.

### Safety warning:

Class III R Laser Product - Avoid direct prolonged eye exposure (do not stare directly at the beam).  
Nominal distance for eye safety - 2 meters (take care when installing at close distances).

When unpacking and before discarding the carton packing, please check for any shipping damages before using the product. If there is any damage caused by transportation and transit, please consult the manufacturer immediately and do not use it. Failure to do so will void your warranty.

### Instructions

- The product should only be installed, operated, maintained and connected to the electrical power grid by qualified, trained personnel.
- Before installing, examine all power requirements to make sure that the voltage and frequency of the power supply correspond to the power required by the product.
- Do not connect this unit to any type of dimmers or at close range. Do not project laser light directly onto reflective materials such as glass, mirrors, metal objects, etc.
- Avoid direct and prolonged exposure of the eyes to laser light. Do not stand or look at the laser light at any distance. Laser light can be harmful to the eyes at close range and prolonged exposure. The Delta FM industrial laser is a professional tool designed to replace traditional road marking, not a toy.
- When installing the laser projector, please be sure to follow the installation instructions carefully and secure firmly all parts, including any screws, grips, etc.
- Keep the laser projector body and the front glass-covered aperture clean at all times. Use only cotton swabs (dry or moistened with clean medical-grade alcohol or water) to clean the glass. Do not use other cleaning fluids to clean the glass.
- When cleaning, wipe several times in one direction, and then repeat the movements in a perpendicular direction. If the internal optics get dirty, consult the manufacturer.
- Please do not attempt to disassemble and/or alter the internal structure of the product. Opening the device housing will void your warranty and expose you to Class IV laser radiation.
- If any part of the laser projector becomes damaged, stop using it immediately. All repairs must be carried out by qualified personnel. If the product is within the warranty period, contact the manufacturer for repair or replacement.
- If the red LED above the laser projector glass turns red, this indicates the connection of input voltage to the laser.
- If the laser beam is off, this means that the operating temperature is too high or too low and the electronic control of the laser diode has switched to protective mode. Do not use the system if the ambient temperature is higher than 55 °C or lower than -45 °C.
- If the laser is not used, the storage temperature should be from -40 °C to + 85 °C and the humidity level should be maintained from 20% ~ 90% relative humidity.

### Special notes:

- Laser radiation is dangerous to human eyes if the exposure is direct and prolonged. Avoid staring directly at the beam at close range.
- Remember to install the laser projector correctly. Damage during the installation will void the factory warranty.
- As with any light source, when the laser projector is operating, it generates heat. Keep away from all flammable or combustible materials.
- DO NOT directly observe the laser light with any optical devices such as binoculars.
- This product comes with a factory warranty of 1 year. Outside this period, we provide paid services for the maintenance or replacement of spare parts. Force majeure cases or user errors are not covered.

### Laser installation:

- Attach the laser to the appropriate place using the laser mount.
- The attachment is done by means of bolts with a diameter of 8 - 10 mm and suitable washers.
- The distance from the laser to the surface on which the line is projected should be at least 4 meters.

### Connection to the electrical power grid:

- Observe the standards set by the utility company.
- Grounding of the appliance is required by law.
- Disconnect the plug from the mains socket before performing any maintenance operations.
- If necessary, the power cord must be replaced with a cord of the same type that can be supplied by the Support Center. The replacement must be performed by a qualified technician.