



Survelase

premier & acculase modulatable/machine vision lyte-mv/dragonfly green/
imatronic/laserlyte/laserlyte-flex/guideline/hawkeye detector/
firefly green/firefly green mini/thread mountable cameo/15mm blue/
survelase/survelase maxi/beta tx/bluelyte/varilite lc/dca/microblock/
accessories/projection lenses/energy efficient/customised solutions.

The Survelase.

A 15mm diameter housing with a custom designed achromatic lens arrangement allows the Survelase to produce small spots over a wide range of working distance with the additional benefit of user adjustable focus. Combined with the internal APC control circuit which operates on a 5 volt DC power source and with the added feature of TTL modulation makes this laser a complete package, flexible for a wide range of applications.

The Survelase is suitable for a wide range of applications where a small spot at a longer distance is required, e.g. positioning, targeting and alignment. It is available in 650nm and more a visually intense 635nm where improved visibility is required. The focus mechanism allows the output beam to be adjusted to your requirements via a focus key.

Features.

- Small well defined spots at longer working distances
- 635nm to 650nm with powers up to 5mW
- CW operation & optional TTL modulation
- Excellent focus & spot quality
- Rugged design
- Low operating current
- User adjustable focus

The Survelase is an ideal laser module for excellent spots quality at long distances



Specifications.

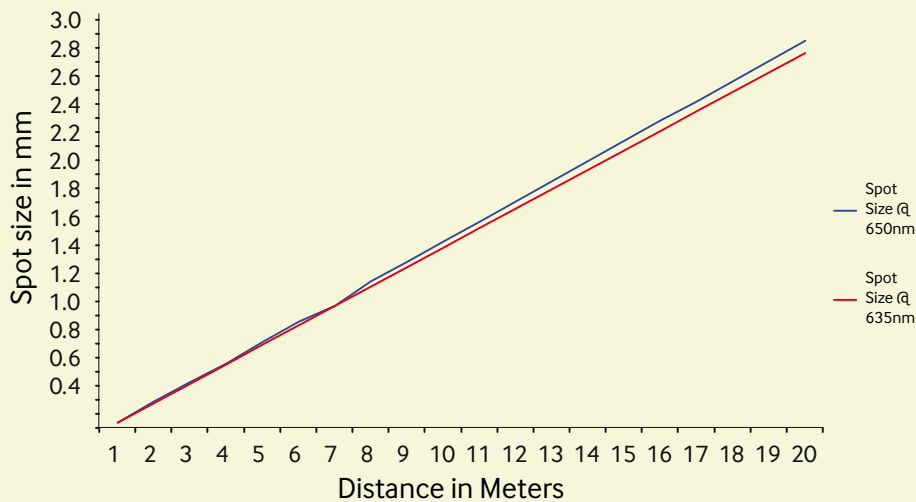
Mechanical Information		
Dimensions (mm)	15 by 58.5	
Weight (grams)	22	
Housing	Anodized Aluminium	
Isolated Body	Yes	
Input Leads	Red Lead: Plus Volts	
	Black Lead: 0 Volts	
	Blue Lead: Optinal TTL	
Lead Length (mm)	100	
Optical Information		
Wavelength	635nm	650nm
Diode Power	1, 3, 5mW	1, 3, 5mW
Power Stability (typical)	± 3% (15° - 45°)	
Focus	Factory set at collimation or adjustable	
Beam Size At Aperture	7.5mm	
Optimum Collimation Distance	140 meters (@ 635nm)	
Distance To Waist	70 meters (@635nm)	
Beam Divergence (Full Angle)	0.25mrad (Typical)	
Minimum Focus Distance (mm)	200	
Smallest Spot Size	<50 microns (Typical)	
Boresight	≤2.5mrad (Typical)	
Environmental Information		
Operating Case Temperature (°C)	0 to +45 *	
Storage Temperature (°C)	-40 to +85	
Operating Humidity (%RH)	90 (non condensing)	
MTTF @ 25°C (hrs)	25,000*	
Dynamic Output		
Frequency Range	≤1Khz	
Electrical Specifications		
Input Voltage +ve (Vdc)	3.5 volts to 5 volts	
Operating Current	*	
Connector Type	Flying Leads	
Reverse Polarity Protection	Yes	
NOTES * Varies with laser diode type All specifications are typical @ 25°C		

Focus.

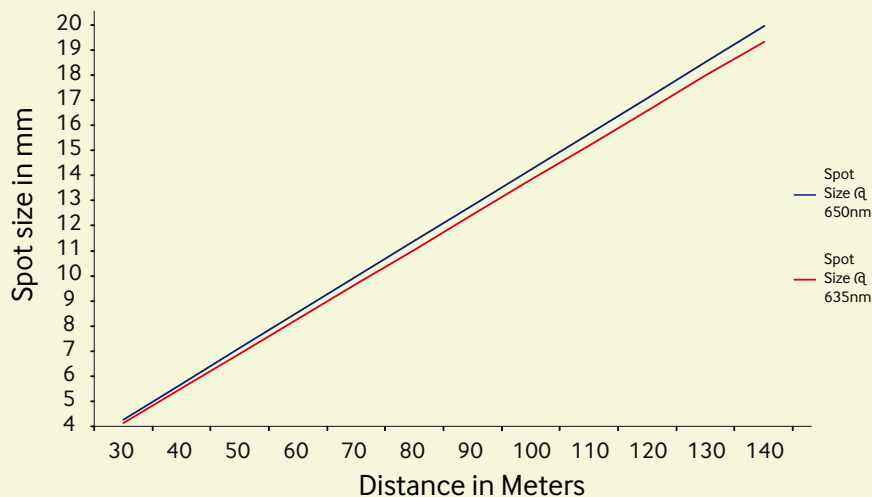
The Survelase is available in two versions. One has the unit focus factory set at collimation, the other version has the focus set at your required focusing distance. An optional focus key is also available to allow the user to adjust the focus. Please state which version you require when ordering and specify the required focus distance and if you require a focus key.

Focusing Characteristics.

Short Range Spot Size



Long Range Spot Size



Modulation.

A common requirement for applications which use photodetectors, cameras and other non-visual sensing is the ability to rapidly switch the laser output ON and OFF. Simply applying and removing the supply voltage is rarely satisfactory and in certain cases can result in the destruction of the module. This is because laser diodes are very sensitive to spikes and surges, which are often the result of uncontrolled supply switching. To overcome this limitation the Survelase can be ordered with an additional input via a third input wire that controls the output of the laser module in a reliable and predictable way. A logic LOW level turns the output completely OFF. However, applying a logic HIGH turns the laser ON after a control input delay. This sets the maximum rate at which the module can switch fully ON and OFF. Bandwidth is typically $\leq 1\text{Khz}$.

Mounting.

Heavy Duty Mounting Clamp

The optional heavy duty mounting clamp allows the Survelase range to be securely fixed at any required direction or angle. The base plate has a series of threaded holes which allows the clamp to be fixed directly onto a machine or workbench.



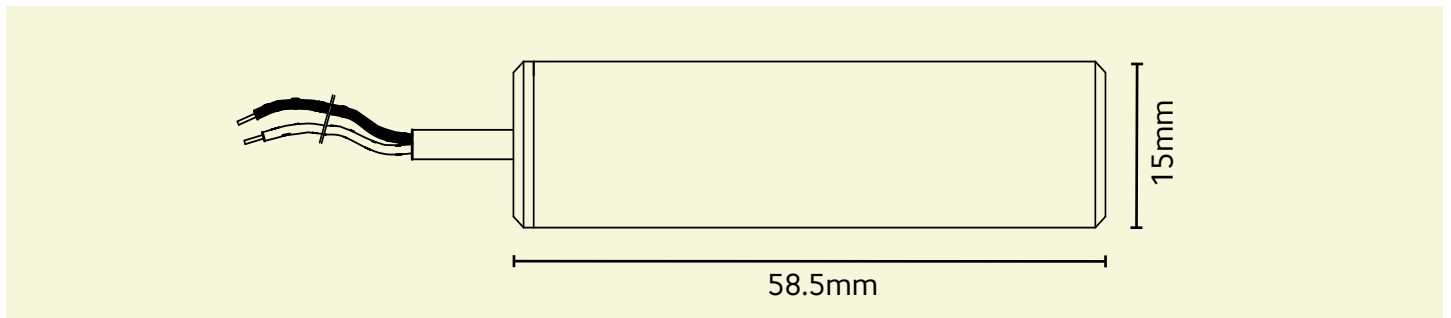
Swivel Mount

The optional lower cost swivel clamp allows the Survelase to be mounted securely. It offers the user up and down movement as well as + 45° swivel. The base plate has a series of holes which allows the clamp to be fixed directly onto a machine or workbench.



Mechanical Dimensions.

Survelase Laser Module



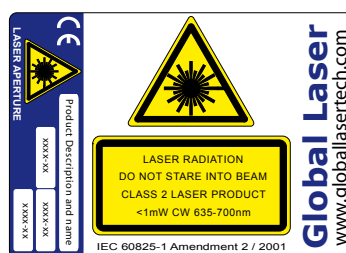
Drawings are not to scale.

Laser Safety

Our lasers are compliant to IEC 60825-1 standards. The lasers fall within one of the following classifications depending on power and wavelength.



OEM Laser Label



Class 2 Laser Label



Class 3R Laser Label

Quality & Warranty

The Survelase range is supplied with a 12 month parts and labour warranty. Our manufacturing operations are certified to ISO9001.



ISO9001 Certified

For further information about any of our products please contact your local distributor or you can contact Global Laser in the UK. Your Local Distributor is:



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