

## Laser Diode Module HAML-XXXX-YY-Z



It is eminently necessary in machine vision applications, especially in 3D vision systems to use a laser source that delivers highly uniform and stable output beam. FLC offers laser diode modules from the **HAML-F** series for the applications. They are very compact, reliable and the focus can easily be adjusted by rotating the upper part by hand. Additionally it fulfills the **IP67** requirements that make it the right product for the use in harsh environmental conditions like production facilities.

### Features:

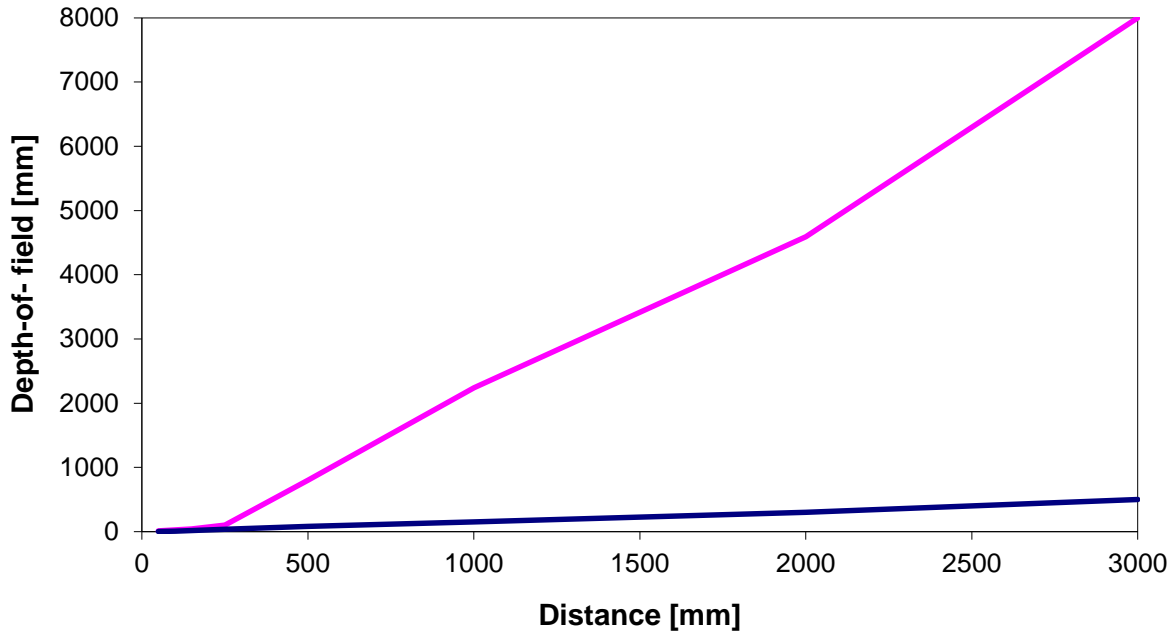
- 450nm to 1060nm
- Power up to 100mW
- Boresight Accuracy <2mrad
- Uniformity up to 95%
- Focus external adjustable

Wavelength @ 25°C	405nm ... 1060nm
Power output @ 25°C	<100mW
Power stability	< 5%/2h
Light mode	CW
Beam divergence	≤0.3mrad
Beam shape	non-Gaussian line, full angle 5° ... 90°
Focus	adjustable
Boresight alignment	2mrad
Operating voltage	5±0,5V DC
Operating current max	< 200mA
Reverse polarity protection	+
ESD protection	2 kV
Housing electrical potential	laser diode dependent
Operating temperature band	-10 to +50°C
Dimensions	Ø20mm × 100mm ( connector not included )
Electrical connection	Binder 4-pin connector; >1m cable
Optics	HQ optical glass, AR-coated both sides
Housing	black anodized aluminum

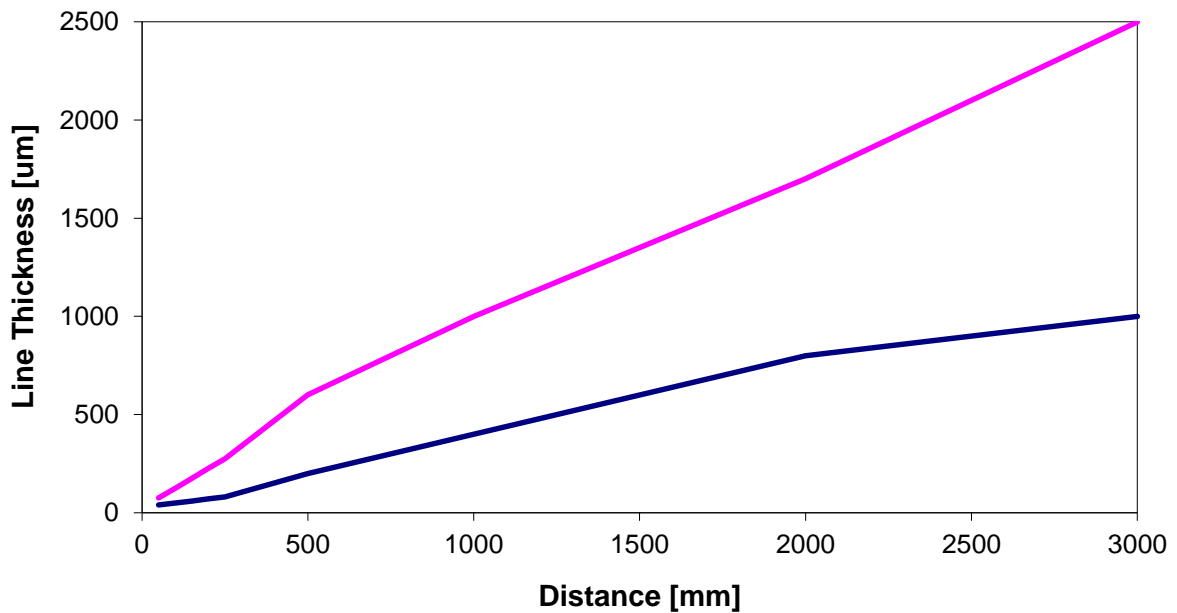
- Wavelength – XXXX
- Output Power – YY
- Option – Z; A: long depth-of-field; B: smallest line thickness
- Option – E for driver in separate housing (see datasheet HAML-XXX-YY-Z-E)
- Potentiometer for power adjustment
- TTL modulation to 100 kHz is an option.

## Typical Performance Data

### Depth-of-field

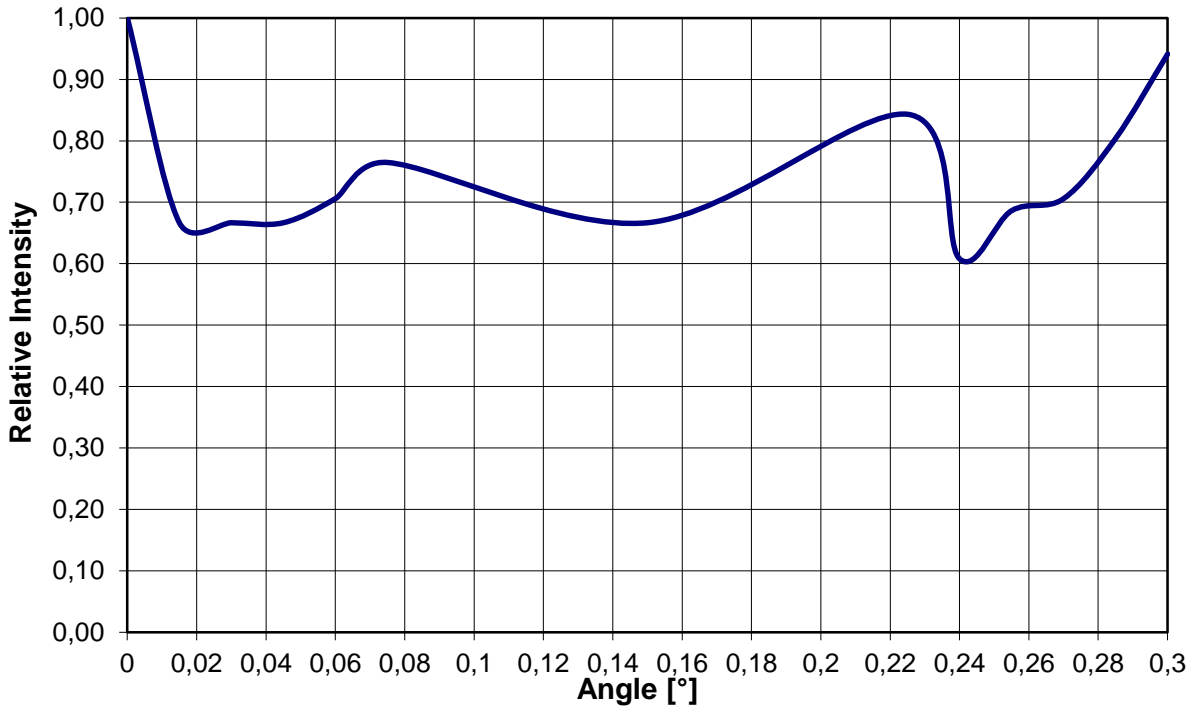


### Line Thickness

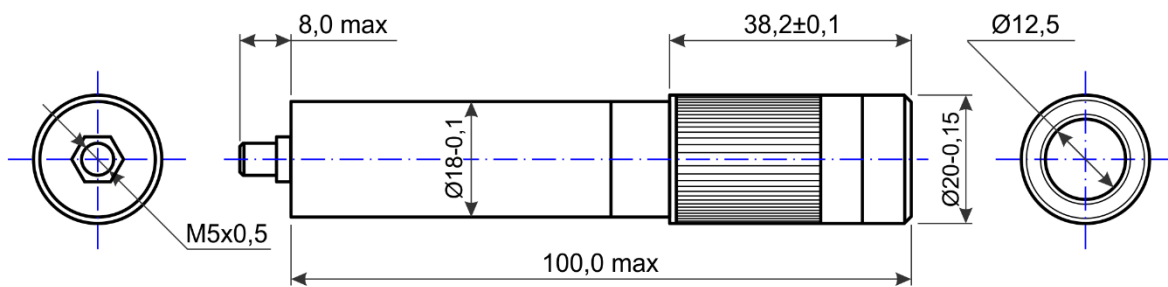


— Option A      — Option B

### Power Distribution non-Gaussian Line (Typical Profile)



### Housing Drawing



Dimensions in mm