

FLEXPOINT® Line Laser Modules

FLEXPOINT® line laser modules generate a crisp line with Gaussian power distribution along the line. Due to sophisticated electronics, a wide range of laser diodes in terms of wavelength and output power levels can be used.

In addition, the options found below in the table are also available for order and make the FLEXPOINT® line laser module a universal tool.

Features

- Wavelengths from 405 nm to 905 nm (including 450 nm, 520 nm, 635-660 nm)
- Different output power levels for each wavelength
- Fan angles from 5° to 100°
- Choice of small or ruggedized housing

Applications

- Industrial alignment, pointing and positioning
- Patient positioning (medical)
- Machine vision



Specifications

Wavelength	405 nm / 450 nm / 488 nm / 520 nm / 635 – 640 nm / 650 – 660 nm / 685 nm / 670 nm / 785 nm / 850 nm / 905 nm (other wavelengths on request)
Output power	From <1 mW up to 100 mW
Fan angle	5° to 100°
Power stability	Better than +/-5% (after warm up)
Beam profile	Line, Gaussian power distribution along the line
Beam divergence	1 mrad
Bore sighting	8.7 mrad (improved bore sighting on request)
Pointing stability	< 50 µrad/°C
Operating voltage	4.5 – 6 VDC, reverse voltage protection 4.5 – 30 VDC as option 10 - 30 VDC for 405/450/488/520 nm
Power consumption	30 – 150 mA, depending on laser diode
Operating temperature	0 – 50 °C (depending on used laser diode, temperature range can be extended)
Storage temperature	-10 °C to +60 °C
Housing size	Standard: 57 mm length, 11.5 + 0/-0.03 mm diameter (520 nm: 70 mm length) Ruggedized: 77 mm length, 19.0 +0/-0.03 mm diameter
Housing material	Black anodised aluminium, isolated (potential free)
Cable length	2.0 m (standard) Connectors (e.g. M12) available as option
Options	Option P: Power adjustment with external potentiometer Option D: Power adjustment with analog voltage signal (dimnable) 0-5 V (active low default, active high as option) Option M: Digital modulation up to 10 kHz 0-5 V (active low default, active high as option) Higher frequencies on request
Accessories	Mount, power supply, laser safety eyewear

Wavelength / Output Power Matrix

The table below shows the available output power levels at different wavelengths (power measured after optics).

Line Lasers (Gaussian)

Wavelength	Output Power
405 nm	1-20 mW 21-100 mW
450 nm	1-40 mW
488 nm	1-40 mW
520 nm	1-3 mW 4-30 mW
635-640 nm	1 mW 2-5 mW 7-10 mW 11-30 mW
650-660 nm	1 mW 2-15 mW 16-30 mW 31-70 mW 71-100 mW
670 nm	1-3 mW 4-5 mW
685 nm	1-30 mW
780-785 nm	1-40 mW
850 nm	1-3 mW 4-20 mW 21-40 mW
905 nm	1-5 mW

Typical Line Width

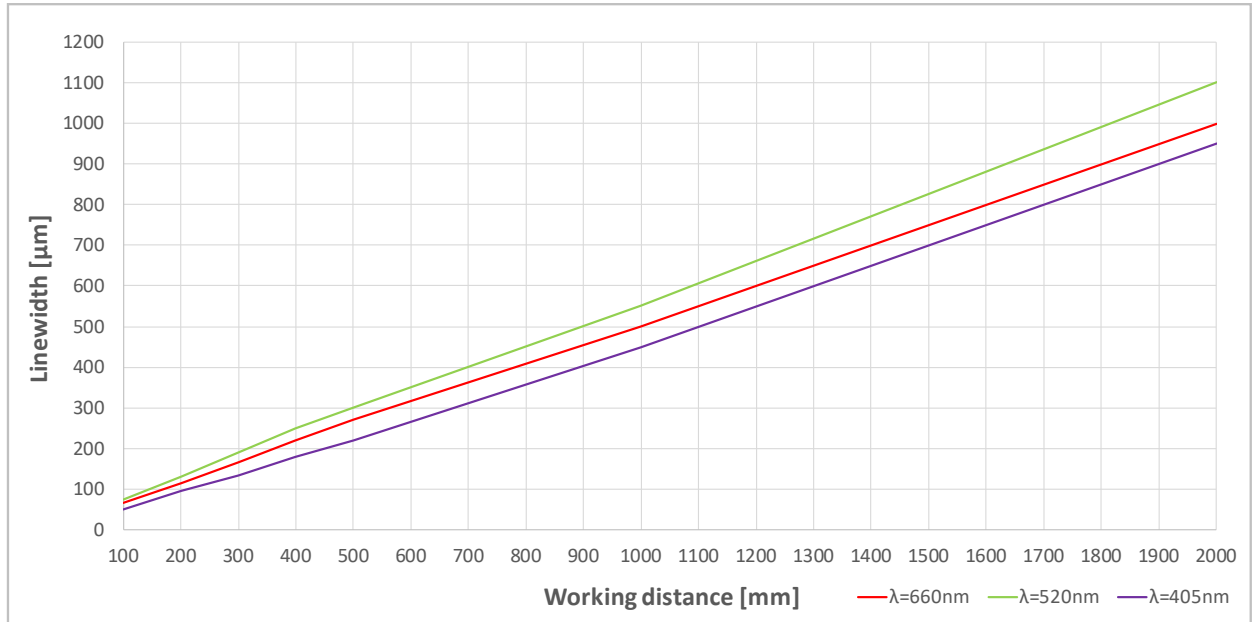
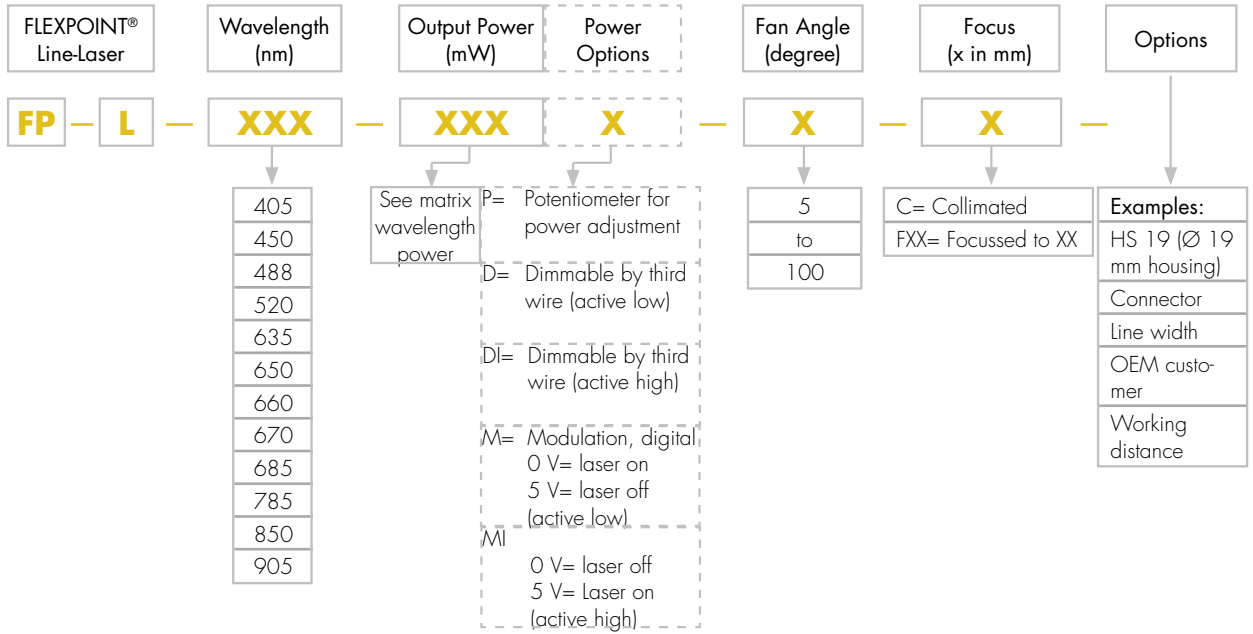


Fig. 1: Typical line width of a focused line laser module



Fig. 2: Typical line width of a collimated line laser module

Ordering Code FLEXPOINT® Line Lasers



Modulation Curves

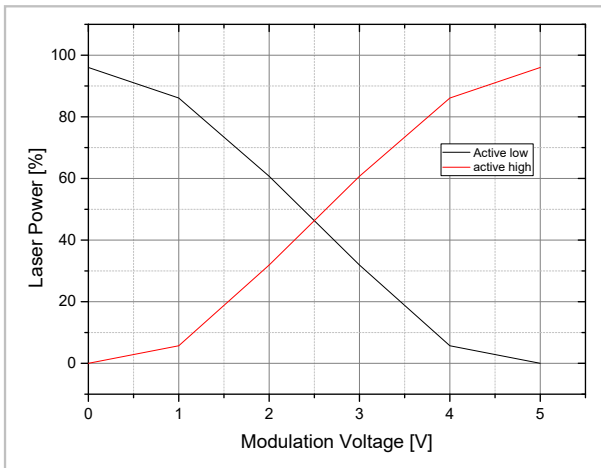


Fig. 3: Typical graph of an active high/active low logic for option D/DI (power adjustment)

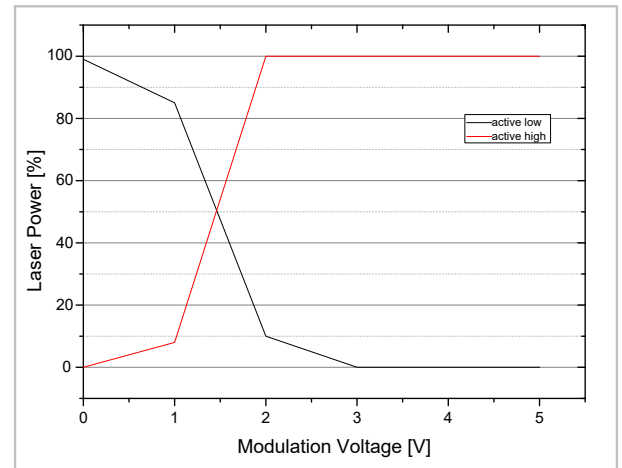


Fig. 4: Typical graph of an active high/active low logic for option M/MI (digital modulation)

Mechanical Drawings

Fig. 5: Standard (small) housing (Ø 11.5 mm)

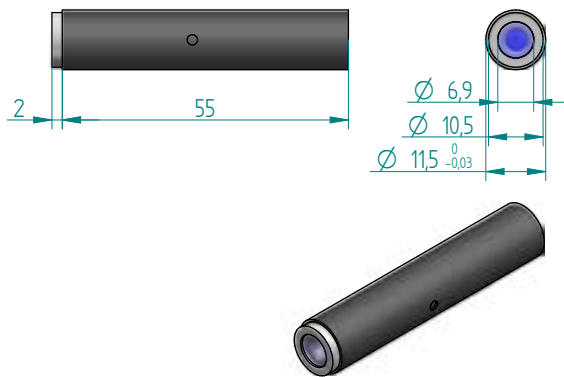
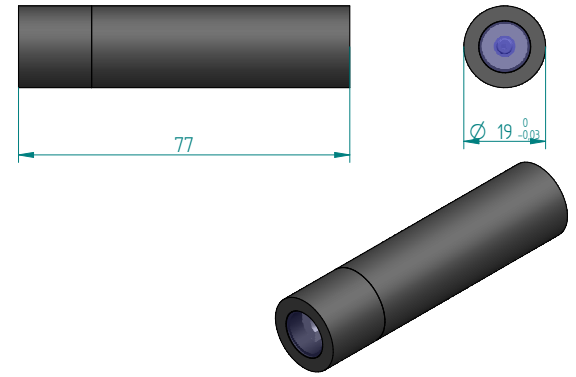


Fig. 6: Ruggedized housing (Ø 19 mm)



Product Changes

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