

## FLEXPOINT® Machine Vision Lasers MVfemto Series

The FLEXPOINT® MVfemto series are the smallest machine vision lasers offered by LASER COMPONENTS. Their tiny housing make them ideal for integration into sensor systems. The lasers produce a crisp line with uniform intensity. A wide range of power levels, wavelengths and fan angles is available.

### Features

- uniform line intensity
- preset focus ex factory
- smallest dimensions
- custom modules available
- universal tool for industrial inspection and 3D triangulation

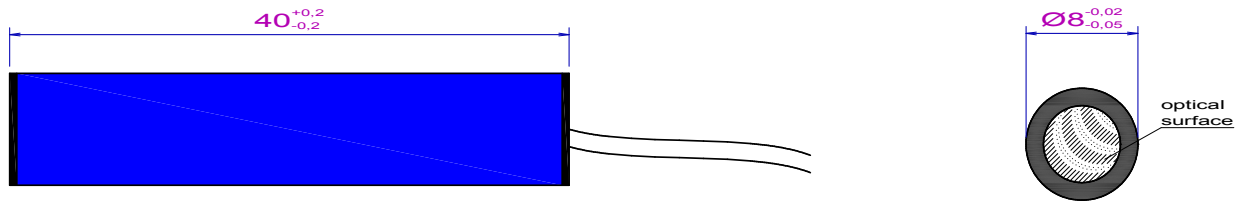


### Specifications

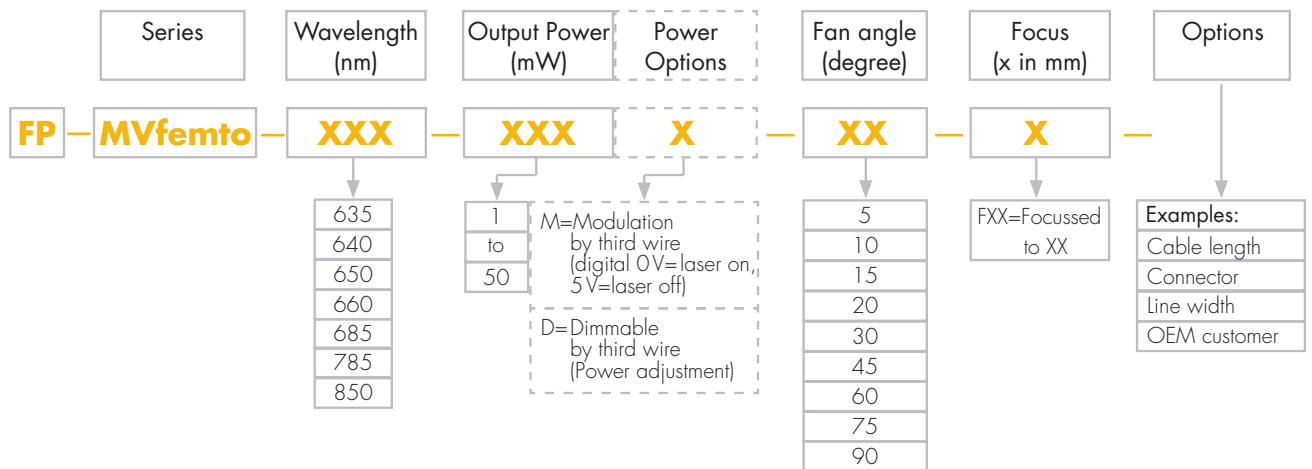
Fan angle	5, 10, 15, 20, 30, 45, 60, 75, 90 deg.
Line uniformity	± 20% related to average power, within 80% of the line, optional: ± 15% / ± 10%
Line straightness	± 0.1 %
Wavelength	635 – 640 nm, 650 – 660 nm, 685 nm, 785 nm, 850 nm (other wavelengths on request)
Wavelength stability	≤ 0,25 nm/°C
Output power	≤ 1 mW up to 50 mW (depends on wavelength)
Output power stability	≤ 5 % (after warm up at 25 °C)
Modulation (option)	digital, 0 – 10 kHz (active low, higher frequency on request), dimmable (active low)
Bore sighting	≤ 10 mrad
Pointing stability	10 µrad/°C
Focus	fixed focus (20 mm - collimated)
Operating voltage	4.5 – 30 VDC (reverse voltage protection)
Current consumption	< 100 mA @ 5 VDC
Operating temperature (housing)	0 to +50 °C (depends on wavelength)
Storage temperature	-20 to +60 °C
Housing material	Aluminium (blue anodized), potential free

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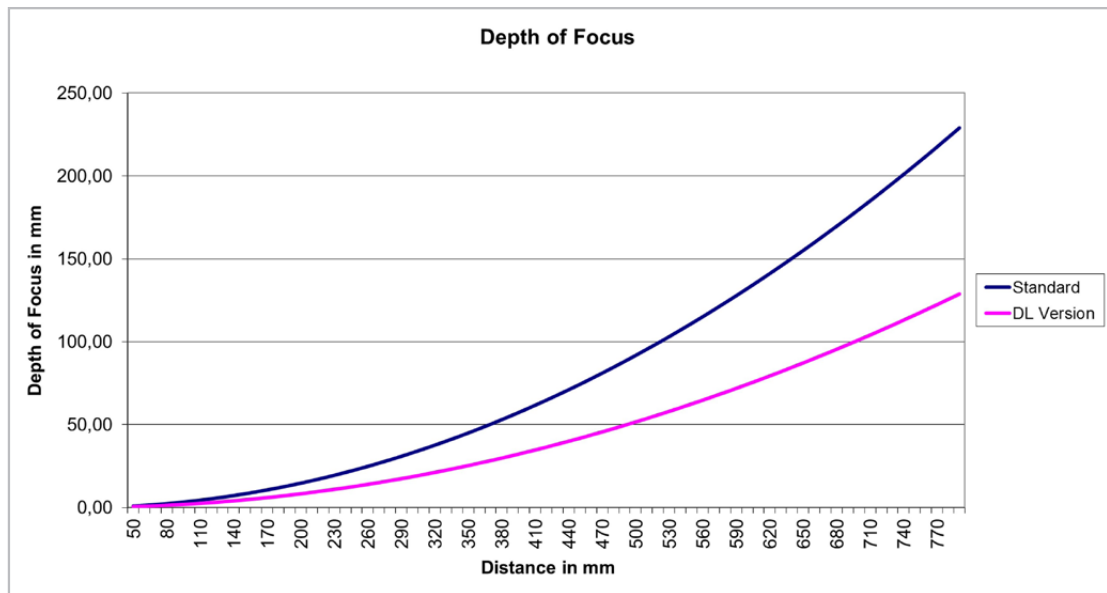
Housing dimensions	l = 40 mm, Ø 8 mm
Connection cable	200 mm, flying leads red: + VCC black: GND green: modulation (option)



## Ordering Code FLEXPOINT® MVfemto Series



The following figures show the typical minimum line width (at  $1/e^2$ ) and the typical focal depth that can be achieved with FLEXPOINT® MVfemto lasers at different distances. The depth of focus is defined as the range in which the minimum line width increases by factor  $\sqrt{2}$ . Line lasers of the MVfemto series can be focused between 20 mm and infinity. Alternatively it is possible to set the working distance to a fixed value during production.



The diagram below shows the typical dimming behavior (option 'D'). In the off-condition a faint emission of about 0.5% of the full laser power may occur in some cases.

