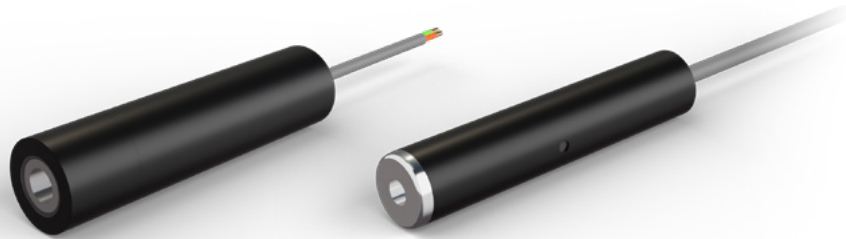


FLEXPOINT® LINE LASER MODULE



THE FLEXIBLE LASER MODULE WITH A GAUSSIAN LINE FOR POSITIONING AND ALIGNMENT

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 can be used.

The FP-L is available from 405 to 905 nm up to 100 mW. Standard operating voltage is 4.5 – 6 VDC but other options like 4.5 – 30 VDC are available on request. The FLEXPOINT® line laser module is available in a 11.5 mm or 19 mm cylindrical housing and can be equipped with digital modulation (active high or active low) for pulsed operation or with an analog modulation for the output power adjustment.

FEATURES

- / 405, 450, 488, 520, 635 – 640, 650 – 660, 780 – 785, 830, 850, 905 nm with fan angles between 5° and 100° for the right line length
- / Sophisticated electronics enable long lifetime
- / Fixed focus or collimated laser beam
- / Cylindrical diameter of 11.5 mm (Standard) or 19 mm (ruggedized housing)
- / Continuous wave or pulsed operation by digital modulation

APPLICATIONS

- / Patient positioning (medical)
- / Industrial positioning and operator guidance
- / Guidance and safety in warehouses
- / Machine vision like tire inspection
- / Alignment

FLEXPOINT® STANDARD LASER MODULE

Flexpoint® Line Laser Module



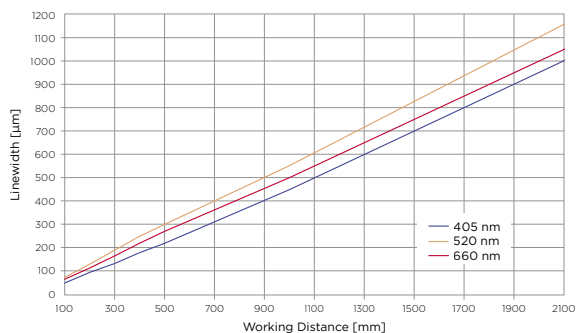
SPECIFICATIONS

Model	Line Laser Beam									
Wavelength [nm]	405	450	488	520	635-640	650-660	780-785	830	850	905
Output power ¹ [mW]	<1-100	<1-40	<1-40	<1-40	<1-40	<1-100	<1-40	<1-70	<1-40	<1-5
Power stability ² [%]	< ± 5									
Operating voltage [VDC]	10-30				4.5-6 VDC reverse voltage protection; 4.5-30 VDC optional					
Operating temperature [°C] ³	0-50									
Available fan angle [°] ⁴	5-100									
Focussing range [mm]	50 to collimation									
Beam divergence [mrad]	1									
Boresight deviation [mrad]	< 8.7									
Pointing stability [μrad / °C]	< 50									
Housing	Black anodised aluminium, isolated (potential free)									
Accessories	Standard Mount for 11.5 mm; Standard Mount for 19 mm ruggedized module; Power supply									
Connector	2.0 m cable; Connectors such as M12 4-pin as option									

Foot Note / Abbreviations

- 1 Output power: The output power is defined behind optics which means at the beam exit of the laser module
- 2 Power stability after warm up at 25 °C
- 3 Below 0 °C condensate formation must be avoided (due to optical and electronic components)
- 4 Fan angle: Defined by the ends of the laser line using FWHM based on the average power (within 80% of line)

Typical Line Width



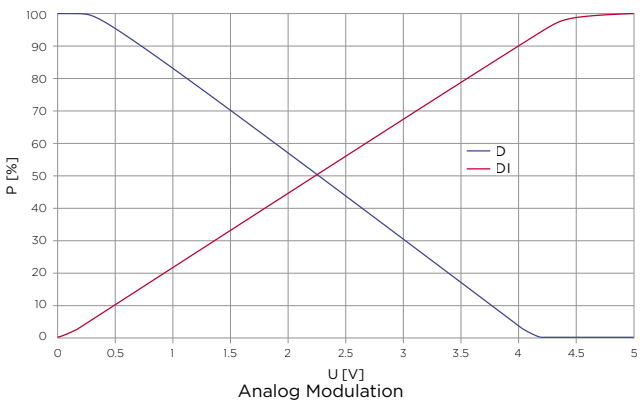
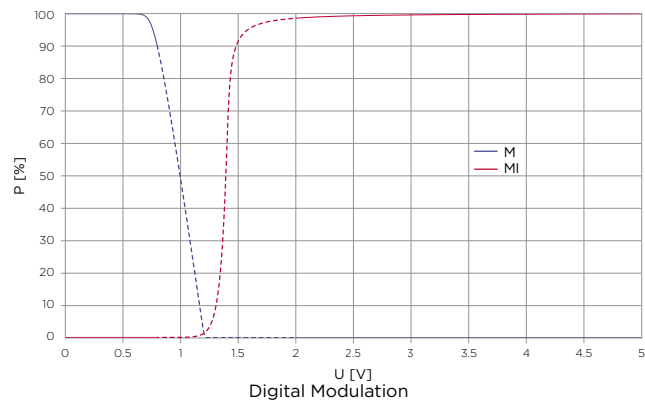
Typical line width of a focused line laser module

FLEXPOINT® STANDARD LASER MODULE

Flexpoint® Line Laser Module



Modulation Options



	Digital Modulation up to 10 kHz Higher frequencies on request 0-5 V (active low or active high)		Analog Modulation Power adjustment with analog voltage signal 0-5 V (active low or active high)	
	M active low	MI active high	D active low	DI active high
On [V]	0-0.8	2-5	0	5
Off [V]	2-5	0-0.8	5	0

Power adjustment by external Potentiometer possible (Option P)

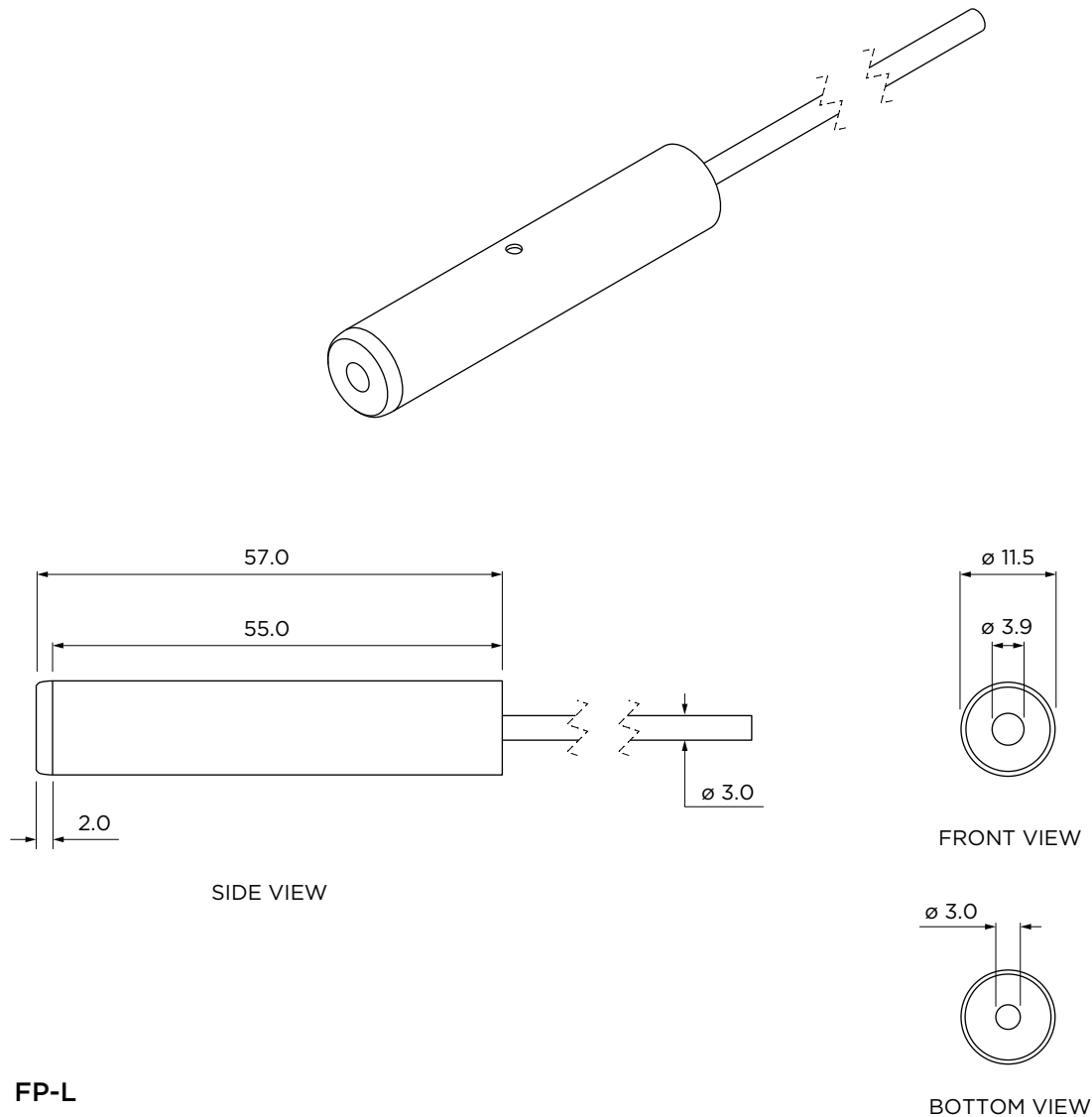
FLEXPOINT® STANDARD LASER MODULE

Flexpoint® Line Laser Module



TECHNICAL DRAWING

Standard (small) housing (Ø11.5 mm)



FP-L

Units: mm
Dimensions are in millimeters

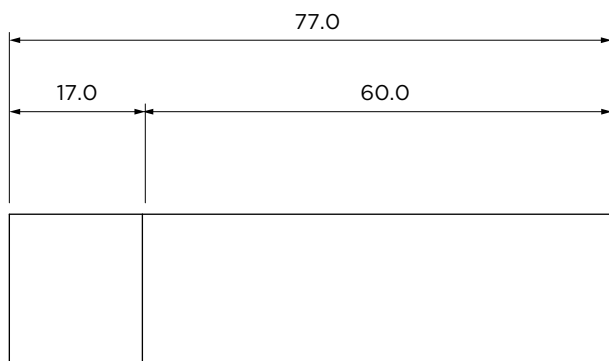
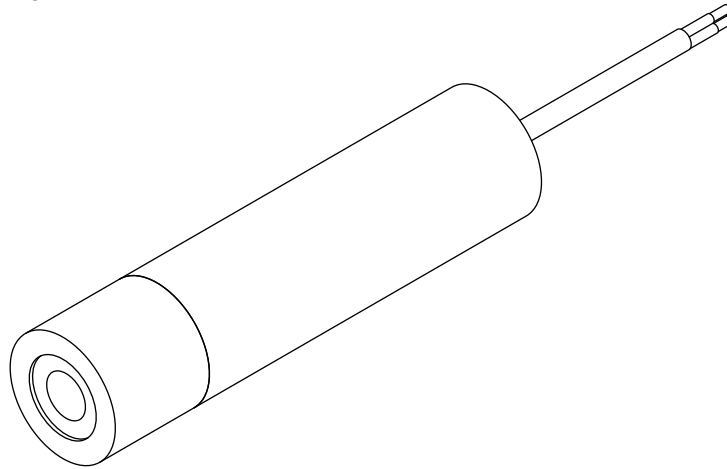
FLEXPOINT® STANDARD LASER MODULE

Flexpoint® Line Laser Module

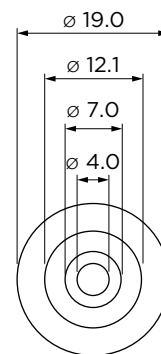


TECHNICAL DRAWING

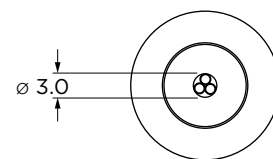
Ruggedized housing (Ø19 mm)



SIDE VIEW



FRONT VIEW



BOTTOM VIEW

FP-L HS19

Units: mm

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864-0 info@lasercomponents.com www.lasercomponents.com
/ France LASER COMPONENTS S.A.S. Tel +33 1 39 59 52 25 info@lasercomponents.fr www.lasercomponents.fr
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk
/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se
/ USA LASER COMPONENTS USA, Inc. Tel +1 603 821-7040 info@laser-components.com www.laser-components.com

FLEXPOINT® STANDARD LASER MODULE

Flexpoint® Line Laser Module



ORDERING CODE

	Wavelength [nm]	Output Power [mW]	Modulation Options	Fan Angle [°]	Focus [mm]	Options
FP-L	- X	- X	- X	- X	- X	-
	405	see Specifications	P	5-100	FIXYYY	
	450		D		C	
	488		DI			
	520		M			
	635-640		MI			
	650-660					
	780-785					
	830					
	850					
	905					

Foot Note / Abbreviations

P = Potentiometer for power adjustment

D = Dimmable by third wire (active low) DI = Dimmable by third wire (active high) M = Modulation, digital (active low) MI = Modulation, digital (active high)

FIXYYY = Fixed focused to YYY mm C = Collimated

Options = Examples: HS 19 (Ø 19mm housing); Connector; Line width; Cable length; Supply voltage

Example: FP-L-405-40DI-60-C-HS19

PRODUCT CHANGES AND LIABILITY

LASER COMPONENTS reserves the right to make changes to the product specifications and/or discontinue products without prior notice. While every effort has been made to ensure the accuracy and reliability of the information provided in this datasheet, LASER COMPONENTS accepts no liability for any errors, omissions, or the consequences of product use. It is the responsibility of the customer to ensure that the product is suitable for their specific application and to comply with all applicable laws and regulations.

ORDERING INFORMATION

Products can be ordered directly from LASER COMPONENTS or its representatives. For a complete listing of representatives, visit our website at www.lasercomponents.com

Custom designed products are available on request.

SAFETY AND HANDLING INFORMATION

Personal Hazard

Depending on the mode of operation, these devices emit highly concentrated non visible infrared light which can be hazardous to the human eye. Products which incorporate these devices have to follow the safety precautions given in IEC 60825-1 »Safety of laser products«.

Handling Precautions

Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload.



/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com

/ France LASER COMPONENTS S.A.S. Tel +33 1 39 59 52 25 info@lasercomponents.fr www.lasercomponents.fr

/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk

/ Nordic Countries LASER COMPONENTS Nordic AB Tel +46 31 703 71 73 info@lasercomponents.se www.lasercomponents.se

/ USA LASER COMPONENTS USA, Inc. Tel +1 603 821-7040 info@laser-components.com www.laser-components.com