

## FLEXPOINT® Laser Modules LR-Series

### FLEXPOINT® Long Range Laser Modules

At a distance from 1 – 200 m beam diameters from 0.5 mm – 12 mm can be achieved. This makes these lasers perfectly suitable for the alignment of long production lines, the aiming at far-away targets, tunnel building, or the construction of walls and fences.

The LR-series lasers come with an easy focusing mechanism to allow the user to adjust the spot size to a minimum at the working distance.

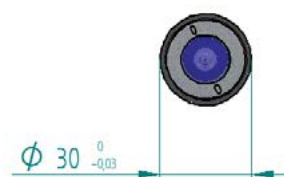
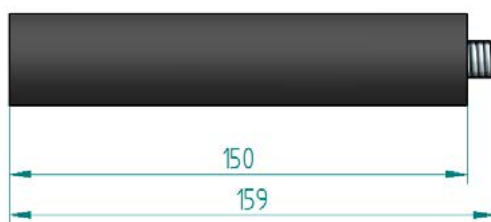
The modules are equipped with bright red 635 nm or green 520 nm laser diodes and deliver an output power between 1 mW and 5 mW.

As accessory, a battery pack is available including recharger and cable to the laser. This allows independent operation for 8 hours.



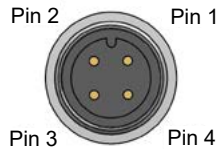
### Key Features

- Long range
- Circular beam
- Bright red or green spot color
- Adjustable focus from 1 – 200 m
- Easy handling

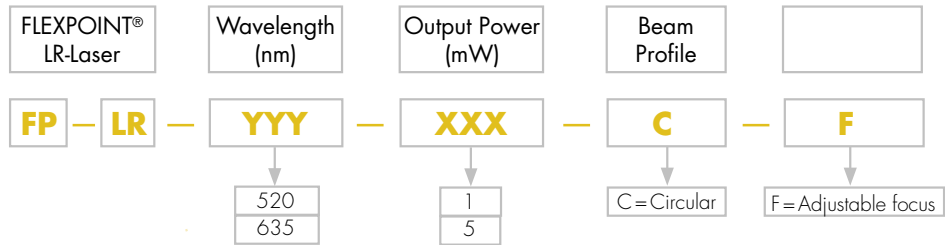


## Specifications

Wavelength	635 nm / 520 nm
Output power	1 mW or 5 mW, higher power on request
Power stability	better +/- 5% (after warm up)
Beam profile	circular
Beam diameter at exit	16 mm
Beam divergence	0.07 mrad
Bore sighting	< 3 mrad
Pointing stability	< 50 µrad/°C
Focus options	adjustable between 1– 200 m
Operation voltage	4.5 – 30 VDC (635 nm) / 10 – 30 VDC (520 nm) reverse voltage protection
Power consumption	< 100 mA (635 nm) / < 200 mA (520 nm)
Storage temperature	-10 °C to +60 °C
Housing size	150/159 mm length; 30 mm +0/- 0.03 mm diameter
Housing material	black anodised aluminium, isolated (potential free)
Protection class	IP54
Connector	M12 sensor connector PIN 1: + PIN 2: NC PIN 3: GND PIN 4: NC
Content of delivery	long range laser transport case focusing tool
Accessories	battery pack incl. charger and connecting cable power supply USB connecting cable Precision Mount



Ordering Code FLEXPOINT® Laser Modules LR-Series



Standard Modules (Selection)

FP-LR-635-1-C-F	635 nm	1 mW	Circular Beam	Laser Class 2
FP-LR-635-5-C-F	635 nm	5 mW	Circular Beam	Laser Class 3R

Focussed to	Approx. Beam Diameter
10 m	1.0 mm
30 m	1.5 mm
50 m	2.7 mm
100 m	5.5 mm
150 m	8.5 mm
200 m	12 mm

## Accessory

### M12-5V-NiMH-Battery Pack for mobile applications (only for 635 nm)

This battery pack power supply can be used in mobile applications with all types of the LR laser series. It is not to be used with other equipment than specified. The battery pack and the charger are designed for indoor use only.

#### M12-5V-NiMH-Battery Pack

Content of delivery	battery pack, charger, (4 x plug adapter: Europe, UK, USA, Japan) M12 cable
Input voltage	110 – 240 VAC / 50 – 60 Hz
Output voltage	5.0 VDC
Capacity	2400 mAh
Operating temperature	-20 °C to +60 °C
Connector	M12 (Pin 1: +/- Pin 3: GND)
Cable length	2 m
Dimensions	80 mm x 75 mm x 30 mm



### M12-10V-NiMH-Battery Pack for mobile applications (for 520 nm and 635 nm)

This battery pack power supply can be used in mobile applications with all laser modules having a M12 connector. It is not to be used with other equipment than specified. The battery pack and the Charger are designed for indoor use only.

#### M12-10V-NiMH-Battery Pack

Content of Delivery	battery pack, charger with 4x plug adapter (Europe, UK, USA, Japan), M12 cable
Input voltage	100 – 240 VAC / 50 – 60 Hz
Output voltage	10 VDC
Capacity	800 mAh
Operating temperature	-20 °C to + 60 °C
Connector	M12 (Pin 1: + / Pin 3: GND)
Cable length	2 m
Dimensions	80 mm x 75 mm x 35 mm



**FP-PS-HD-12 Heavy Duty Power Supply**

This Power Supply can be used worldwide with all types of the FLEXPPOINT® HD series. It is not to be used with other equipment than specified.

**FP-PS-HD-12 Power Supply**

Content of delivery	Power supply, 4x plug adapter (Europe, UK, USA, Japan)
Operating voltage	100 – 240 VAC / 50 – 60 Hz
Output voltage	12 VDC
Output current	10 mA – 1200 mA
Cable length	1.8 m, AWG 18
Connector	M12 female (Pin 1: + / Pin 3: GND)
Operating temperature	0 °C to + 40 °C

**M12-USB-12V Connecting Cable**

The M12 USB cable creates a connection between a laser module and any USB power supply. This can be a commercially available power bank, a USB power supply or the USB port of a computer. In the cable, the USB standard voltage is transformed from 5 V to 12 V, so that all laser modules that require a voltage of at least 10 V can also be operated.

**Technical Data**

Connection laser side	M12 socket female, 4-pin, 12 V (+/- 0.5 V), max. 600 mA, Pin 1: + Pin 3: GND
USB connection	USB-A, 5 V, max. 2.0 A
Cable length	1.5 m



**FP-MP-30:****Precision Mount for Laser Modules with 30 mm diameter**

The FP-MP-30 is the ideal mount for precise adjustment of Long Range Laser Modules with 30 mm diameter. The angular adjustment is done by 100-pitch screws over 4° range. The unique disc-spring design provides superior stiffness and stability.

**Key Features**

- 2-axis adjustment
- 100-pitch screws
- 4° range
- Fixation with 2.5 mm allen key
- M6 threads for mounting on a tripod

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