

ILM12F / ILM12IP SERIES

FLEXPOINT® Industrial Laser Module



THE PLUG AND PLAY SOLUTION - THE LASER MODULE WITH M12 INDUSTRIAL HOUSING

The ILM12 laser modules were specifically developed for industrial positioning and alignment applications. Thanks to their M12x1 external thread, these lasers, which come in industrial housings made of stainless steel, are easy to integrate. All ILM12F lasers come with an adjustable focus to generate a crisp and thin line or a focused dot in the desired working distance. All ILM12F Lasers have an IP54 rating.

All ILM12IP lasers have an IP67 waterproof housing. These laser modules are well prepared for outdoor applications or dusty environments. They have a collimated or customer specific fixed focus beam.

The ILM12F and ILM12IP laser modules project either dots, lines, or cross-hairs at 520 nm (green) or 635 nm (bright red).

FEATURES

- / Dot, line or cross-hair beam in bright red (635 nm) or green (520 nm)
- / Easy to use and integrate (M12 industrial housing and connector)
- / IP54 rating (ILM12F) or IP67 waterproof housing (ILM12IP)
- / Adjustable focus (ILM12F)
- / Module can be tuned to laser class 1 and 2 so that no laser safety eyewear is necessary

APPLICATIONS

- / Positioning tasks
- / Timber industry
- / Metal industry
- / Textile industry
- / Automotive industry

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FLEXPOINT® INDUSTRIAL LASER MODULE

ILM12F / ILM12IP Series

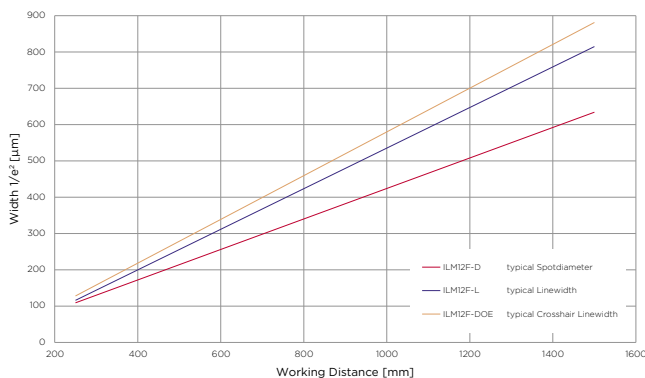


SPECIFICATIONS

	Dot Laser	Line Laser	Cross-hair Laser
Model	ILM12F-D ILM12IP-D	ILM12F-L ILM12IP-L	ILM12F-DOE ILM12IP-DOE
Available beam shape	circular, elliptical		
Fan angle [°]		35, 58, 90	2–60
Wavelength [nm]	520 (bright green)		635 (bright red)
Wavelength tolerance (typ.) [nm]	± 10		± 5
Output power [mW]	<1–30		<1–40
Operating voltage [VDC]	10–30		4.5–30
Operating Temperature [°C]	0 to +50		
Focussing range [m]	0.1–10 (ILM12F) Collimated (dot) or fixed focus (ILM12IP)		
Modulation (Option M)	Digital Modulation up to 10 kHz active low (higher frequencies on request) 0V = Laser on 5V = Laser off 24V Modulation available: 24V = Laser off		
Power adjustment (Option D)	Dimmable by control wire 0–5 V (active low)		
Laser protection class	Laser class 1 and 2 (may change while focusing) can be set at factory		
Additional protections	IP54 (ILM12F) IP67 (ILM12IP) according to DIN-EN 60529:2014-09		
Housing	Stainless steel with thread M12x1, potential free		
Accessories	Mount M12 Thread, IP67 add-on for ILM12F, M12-USB Connecting Cable, FP-12V-M12 Mobile Power Pack, universal power supply		
Connector	M12 connector, Binder series 713 PIN1: VCC PIN2: Option D or M PIN3: GND PIN4: D when MD required (Dimmable in case digital Modulation and Dimmable are both needed otherwise not connected)		

Spotsize / Line Thickness

The following diagram shows typical graphs of the ILM12F as a function of working distance: the dot diameter and the width of the laser line increase linearly with increasing working distance (= distance



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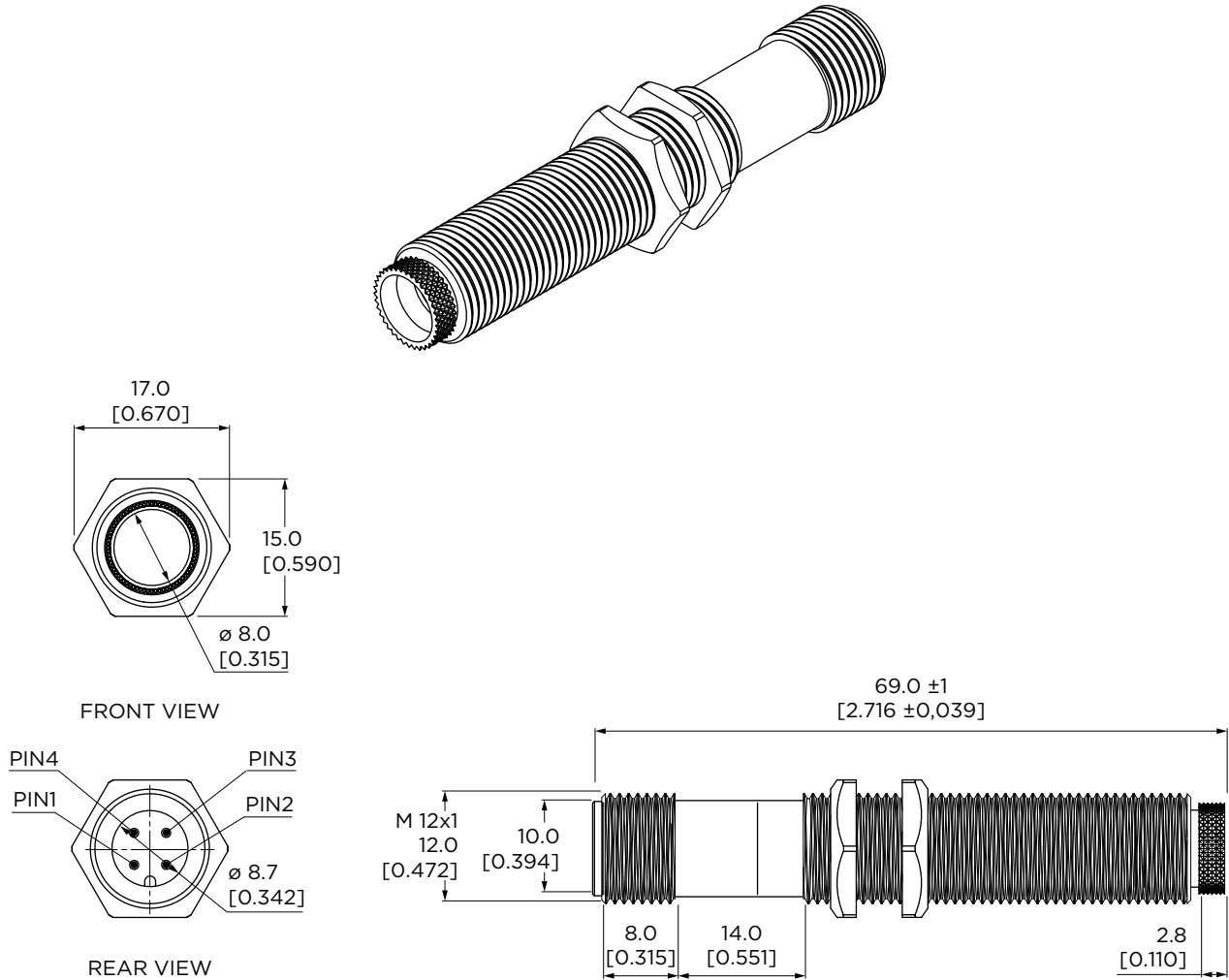
FLEXPOINT® INDUSTRIAL LASER MODULE

ILM12F / ILM12IP Series



TECHNICAL DRAWING

The industrial laser module ILM12F, focusable



ILM12F Series

Units: mm [inch]

Dimensions are in millimeters - [inches] and are for reference only.

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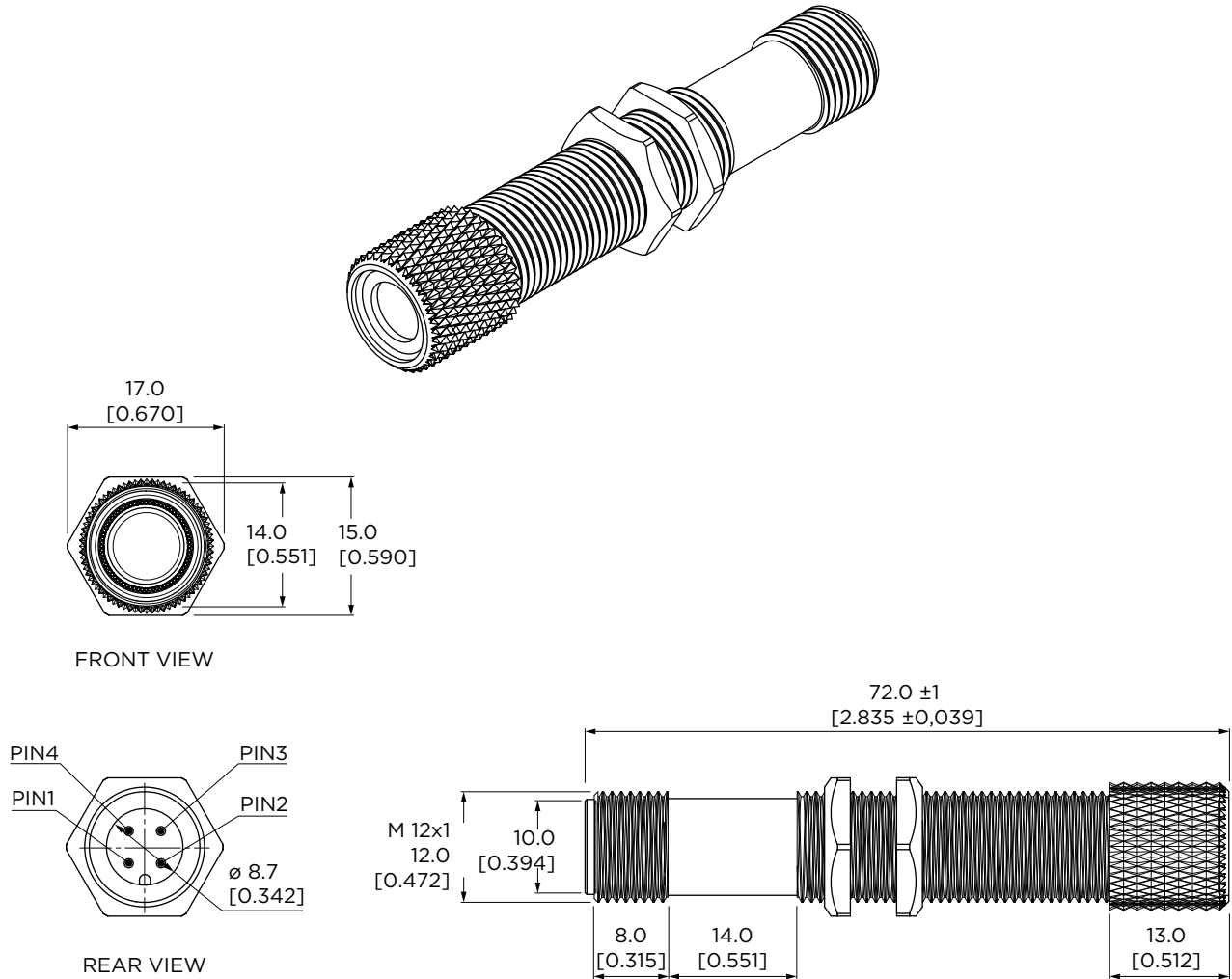
FLEXPOINT® INDUSTRIAL LASER MODULE

ILM12F / ILM12IP Series



TECHNICAL DRAWING

The industrial laser module ILM12IP with IP67 certification and fixed focus



ILM12IP Series

Units: mm [inch]

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ILM12F / ILM12IP Series



ORDERING CODE

Series		Wavelength [nm]	Output Power [mW]	Power Options	Beam Specifications	Focus	Options
ILM12	X	X	X	X	X	X	X
F IP	D L DOE	520 635	1-30 (520nm) 1-40 (635nm)	D M	Beam Profile for D: C E Fan Angle for L [°] 35 58 90 DOE Type for DOE see datasheet	F FIXxxx C	Spot size OEM other

Foot Note / Abbreviations

D = Dimmable by third wire (Power Adjustment) M = Modulation, digital (0 V = laser on, 5 V = laser off)
 F = Focusable (ILM12F only) FIXxxx = Focused to xxx mm, cannot be changed C = Collimated
 C = Circular E = Elliptical

Example: ILM12F-D-635-30M-E-F