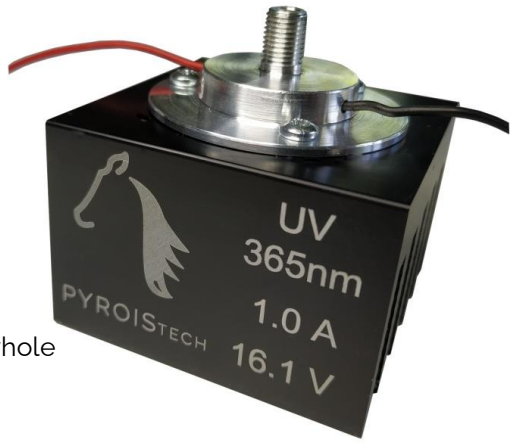
LED modules

PYROIS TECH

Fiber coupled LED



These LED modules can be used as stand-alone devices if you don't require a complex control or with a COB light source if you need a more advanced solution.

They have a configurable output connector (SMA/FC) specially designed to optimize the coupling to an optical fiber. The heatsink allows a quiet operation while providing an effective heat dissipation.

- Quality materials for a long life
- Configurable output connector (SMA/FC)
- Spectral bandwidth configurable with only a single LED from 270 nm to 1050nm.
- Suitable for absorption, transmission, fluorescence or colorimetry
- Stable in the whole spectral range
- Compact
- Light
- Silent (no fan)
- Economic

Characteristics

The LED modules have to be fed with a power supply. The red wire corresponds to the positive (+) terminal of the LED and the black wire to the negative (-) terminal. Connecting the wires incorrectly can damage or even destroy the LED and it is not covered by the warranty.

The forward current $\mathbf{I_F}$ fed by the power source has to be limited to the value indicated in the table. Higher values of $\mathbf{I_F}$ will damage or even destroy the LED and are not covered by the warranty.

The typical forward voltage $\mathbf{V_F}$ that corresponds to the maximum $\mathbf{I_F}$ is the one that appears in the table but it can slightly vary. Working with a lower value of $\mathbf{I_F}$ will imply a lower value for $\mathbf{V_F}$ too.

Optical Characteristics

LED Module - Ultraviolet (UV)

	Optical characteristics			
Name	**λ (nm)**	**Power (mW)***	**VF(V)**	**Max IF (A)**
LEDM-265	265 nm	TBD	TBD	TBD
LEDM-270	270 nm	0.12 mW	8.00	0.15
LEDM -280	280 nm	0.11 mW	8.00	0.15
LEDM-300	300 nm	TBD	TBD	TBD
LEDM-310	310 nm	0.50 mW	6.00	0.60
LEDM-325	325 nm	TBD	TBD	TBD
LEDM-340	340 nm	TBD	TBD	TBD
LEDM-365	365 nm	11.8 mW	3.80	1.00
LEDM-385	385 nm	10.6 mW	3.50	1.00
LEDM-395	395 nm	11.0 mW	3.50	1.00
LEDM-405	405 nm	11.4 mW	3.50	1.00

* Measured with a 600 µm diameter fiber and 0.22 NA.
** Measured with a VIS-NIR fiber with a diameter of 1000 µm and 0.5 NA

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LED Module - Visibles (VIS)

Optical characteristics				
Name	λ (nm)	Power (mW)*	VF(V)	Max IF (A)
LEDM430	430 nm	TBD	TBD	TBD
LEDM-457	457 nm	13.2 mW	3.50	1.5
LEDM-460	460 nm	10.7 mW	3.70	1.20
LEDM-523	523 nm	4.8 mW	3.95	1.50
LEDM-590	590 nm	2.0 mW	2.70	1.20
LEDM-623	623 nm	10.3 mW	3.00	1.50
LEDM-660	660 nm	10.6 mW	2.70	1.20
LEDM-EX White	EX White	0.75 mW	3.00	0.50
LEDM-3000 White	3000 White	2.4 mW	13.40	1.00
LEDM-6500 White	6500 White	16.5 mW	3.25	1.20

* Measured with a 600 µm diameter fiber and 0.22 NA.

LED Module – Infrared (IR)

Optical characteristics				
Name	λ (nm)	Power (mW)*	VF(V)	Max IF (A)
LEDM-740	740 nm	7.3 mW	2.30	1.20
LEDM-840	840 nm	13.1 mW	3.25	1.20
LEDM-940	940 nm	29.0 mW	3.05	1.20
LEDM-1050	1050 nm	58.1 mW**	1.60	1.00
LEDM-1100	1100 nm	TBD	TBD	TBD
LEDM-1200	1200 nm	TBD	TBD	TBD
LEDM-1300	1300 nm	TBD	TBD	TBD
LEDM-1450	1450 nm	TBD	TBD	TBD
LEDM-1550	1550 nm	TBD	TBD	TBD
LEDM-1650	1650 nm	TBD	TBD	TBD

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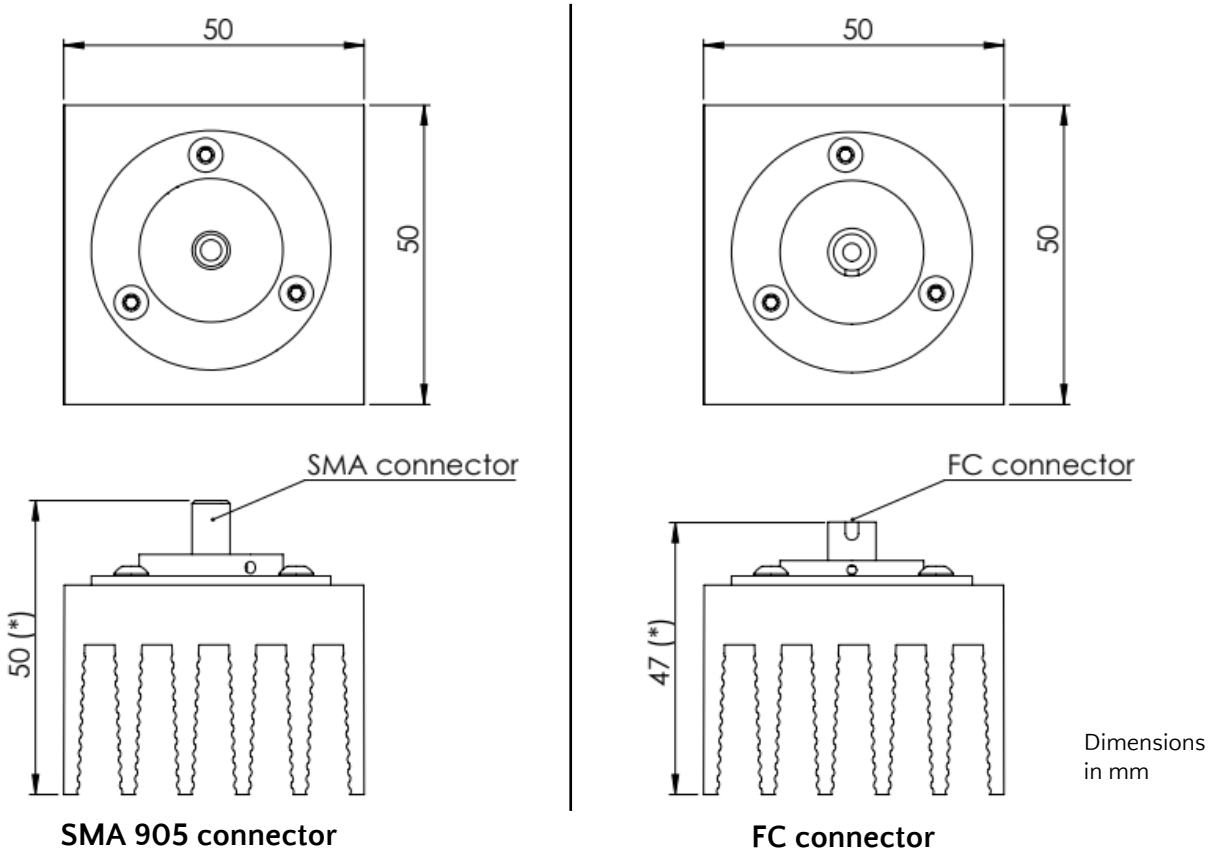
Mechanical data



Dimensions in mm

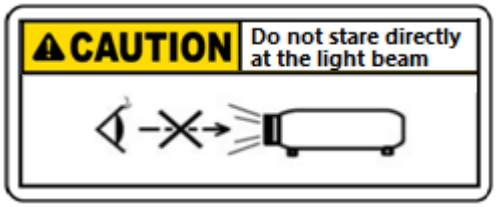
SMA 905 connector

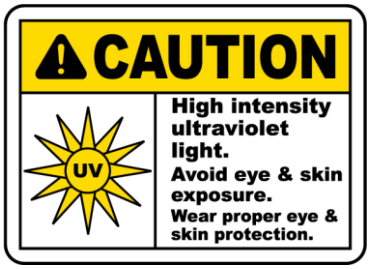
FC connector

(*) This dimension may slightly vary depending on the specific LED module. Please consult us if you require this value for a certain model.

Safety Notes

- Do not remove or alter the connector.
- During operation do not cover the LED module. Avoid exposure to direct sun light. A rise in the LED module's temperature could affect its operation or even damage it.
- The output connector of the LED module and the heatsink get hot during operation. After its employment, allow enough time to cool down before handling.
- Optical radiation can damage your eyes. Do NOT stare directly at the light beam.
- Proper protective eyewear must be worn when using LED modules that emit UV radiation (λ = 270, 280, 310, 365, 385, 395, 405 nm). Avoid exposure to the beam. It is hazardous to skin and eyes, and may cause cancer.
- LED modules with λ = 840 nm and λ = 940 nm emit non visible infrared light, which can be hazardous depending on total system configuration (including, but not limited to optics, drive current and temperature). Observe safety precaution given in IEC 62471 when operating these LED modules.





Warranty

The LED modules are covered by Pyroistech's 1 year warranty.

The specifications indicated in this datasheet are subject to change without prior notice.

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