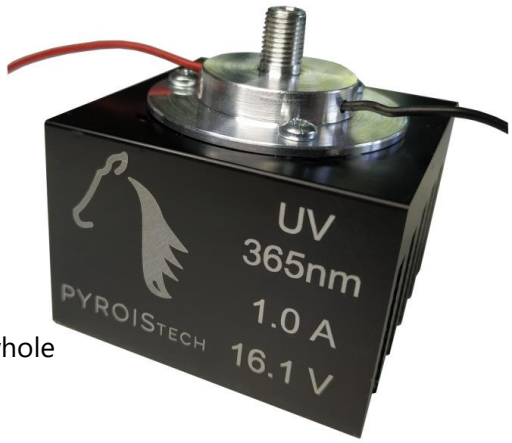
LED modules

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 programmable power source. 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.

Reference	λ (nm)	Power[1] (mW)	Typ. V_F (V)	Max I_F (A)
LEDM-270	270	0.12	8.00	0.15
LEDM-280	280	0.11	8.00	0.15
LEDM-310	310	0.50	6.00	0.60
LEDM-365	365	11.8	3.80	1.00
LEDM-385	385	10.6	3.50	1.00
LEDM-395	395	11.0	3.50	1.00
LEDM-405	405	11.4	3.50	1.00
LEDM-457	457	13.2	3.50	1.50
LEDM-460	460	10.7	3.70	1.20
LEDM-523	523	4.8	3.95	1.50

Reference	λ (nm)	Power[1] (mW)	Typ. V_F (V)	Max I_F (A)
LEDM-590	590	2.0	2.70	1.20
LEDM-623	623	10.3	3.00	1.50
LEDM-660	660	10.6	2.70	1.20
LEDM-740	740	7.3	2.30	1.20
LEDM-840	840	13.1	3.25	1.20
LEDM-940	940	29.0	3.05	1.20
LEDM-1050	1050	58.1[2]	1.60	1.00
COB-EX White	-	0.75	3.00	0.50
LEDM-3000 White	-	2.4	13.30	1.00
LEDM-6500 White	-	16.5	3.25	1.20

(1) Measured with an optical fiber with core diameter 600 µm and 0.22 NA, and a Si photodiode (OPHIR™) working with max I_F

(2) Measured with a VIS-NIR optical fiber with core diameter 1000 µm and 0.5 NA, and a Si photodiode (OPHIR™) working with max I_F

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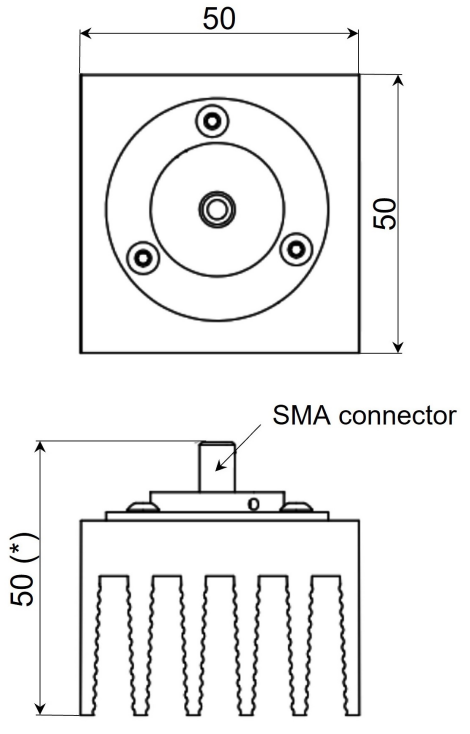
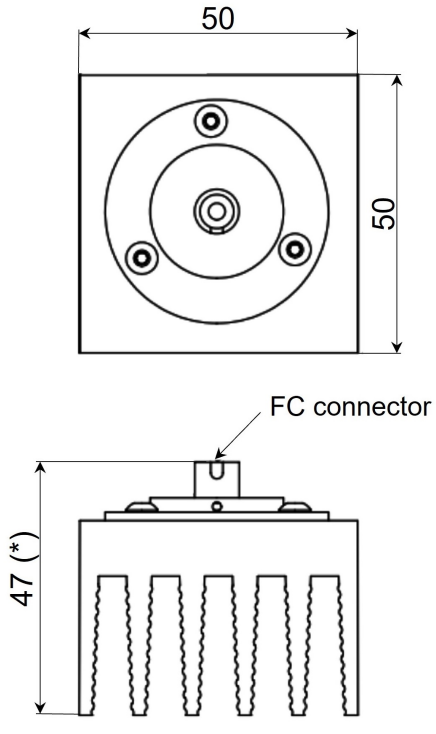


SMA 905 connector



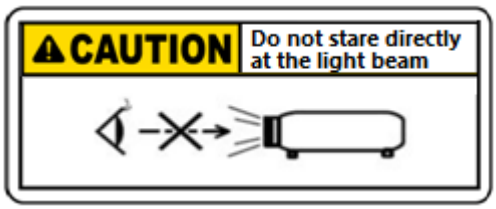
FC connector

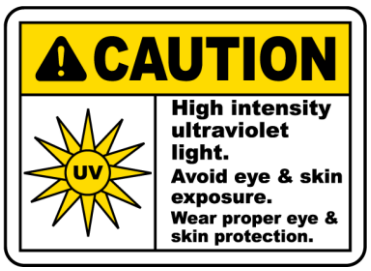
*all the dimensions are in mm

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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