

LEDe modules



LEDe modules can be used as stand-alone devices if you don't require a complex control or with a **COBe (LED driver)** if you need a more advanced solution.

LEDe modules provide a thread that enables the coupling of different elements such as multiple connectors (SMA/FC), diffusors or lens. It is also equipped with a heatsink for a quiet operation while providing an effective heat dissipation.



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

Characteristics

The LEDe modules have to be fed with a power supply (i.e. COBe). Connecting the wires incorrectly can damage or even destroy the LED.

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

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

Optical Characteristics

LEDe Module Ultraviolet (UV)

Optical characteristics					
Name	λ (nm)	Power		Spectral	
		(mW)*	VF(V)	Max IF (A)	range FWHM
LEDe-265	265 nm	TBD	TBD	TBD	11 nm
LEDe-270	270 nm	0.12 mW	8.00	0.15	15 nm
LEDe -280	280 nm	0.11 mW	8.00	0.15	15 nm
LEDe-300	300 nm	TBD	TBD	TBD	20 nm
LEDe-310	310 nm	0.50 mW	6.00	0.60	15 nm
LEDe-325	325 nm	TBD	TBD	TBD	12 nm
LEDe-340	340 nm	TBD	TBD	TBD	10 nm
LEDe-365	365 nm	11.8 mW	3.80	1.00	12 nm
LEDe-385	385 nm	10.6 mW	3.50	1.00	12.5 nm
LEDe-395	395 nm	11.0 mW	3.50	1.00	16 nm
LEDe-405	405 nm	11.4 mW	3.50	1.00	20 nm

* Measured with a 600 μ m diameter fiber and 0.22 NA.

LEDe Module- Visibles (VIS)

Optical characteristics					
Name	λ (nm)	Power (mW)*	VF(V)	Max IF (A)	Spectral range FWHM
LEDe-430	430 nm	TBD	TBD	TBD	17 nm
LEDe-457	457 nm	13.2 mW	3.50	1.5	20 nm
LEDe-460	460 nm	10.7 mW	3.70	1.20	24 nm
LEDe-523	523 nm	4.8 mW	3.95	1.50	36 nm
LEDe-590	590 nm	2.0 mW	2.70	1.20	15 nm
LEDe-623	623 nm	10.3 mW	3.00	1.50	17 nm
LEDe-660	660 nm	10.6 mW	2.70	1.20	18 nm
LEDe-EX White	EX White	0.75 mW	3.00	0.50	TBD
LEDe-3000 White	3000 White	2.4 mW	13.40	1.00	TBD
LEDe-6500 White	6500 White	16.5 mW	3.25	1.20	TBD

* Measured with a 600 μ m diameter fiber and 0.22 NA.

LEDe Module- Infrared (IR)

Optical characteristics					
Name	λ (nm)	Power (mW)*	VF(V)	Max IF (A)	Spectral range FWHM
LEDe-740	740 nm	7.3 mW	2.30	1.20	18 nm
LEDe-840	840 nm	13.1 mW	3.25	1.20	33 nm
LEDe-940	940 nm	29.0 mW	3.05	1.20	40 nm
LEDe-1050	1050 nm	58.1 mW**	1.60	1.00	55 nm
LEDe-1100	1100 nm	TBD	TBD	TBD	50 nm
LEDe-1200	1200 nm	TBD	TBD	TBD	65 nm
LEDe-1300	1300 nm	TBD	TBD	TBD	80 nm
LEDe-1450	1450 nm	TBD	TBD	TBD	95 nm
LEDe-1550	1550 nm	TBD	TBD	TBD	102 nm
LEDe-1650	1650 nm	TBD	TBD	TBD	120 nm

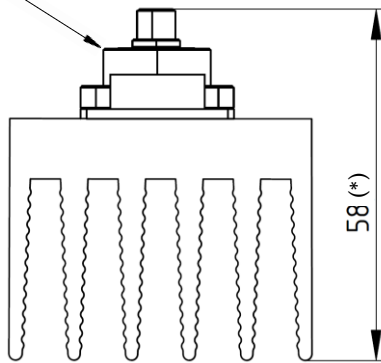
* Measured with a 600 μ m diameter fiber and 0.22 NA.

** Measured with a VIS-NIR fiber with a diameter of 1000 μ m and 0.5 NA

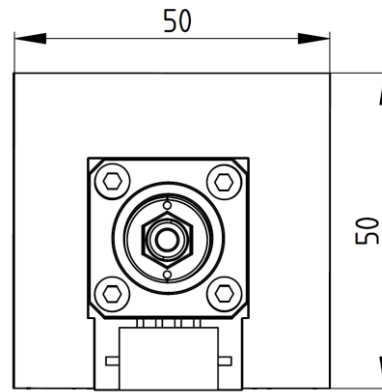
LEDe modules



0.535"-40 UNS internal thread

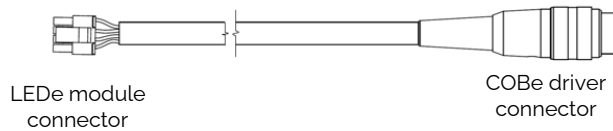


58 (*)



NC NC - +

SMA 905 connector



LEDe module connector

COBe driver connector

Connector cable included (1.8m).

(*) 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 ($\lambda = 270, 280, 310, 365, 385, 395, 405 \text{ nm}$). Avoid exposure to the beam. It is hazardous to skin and eyes, and may cause cancer.
- LED modules with $\lambda = 840 \text{ nm}$ and $\lambda = 940 \text{ nm}$ 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.

