SOLA SE FISH light engine®

FOR FLUORESCENCE IN SITU HYBRIDIZATION (FISH)





Assay Specific Lighting for multicolor FISH

Spectral outputs optimized for FISH probe excitation

Cytogenetic analysis using FISH almost always involves multiple spectrally distinct probes, allowing simultaneous visualization of variant and control signals. The ideal light source should provide output that is spectrally optimized relative to the excitation characteristics of the probes and deliver sufficient intensity to generate fluorescence from weak hybridization signals. Furthermore, the throughput demands of routine cytogenetic analysis require a light source that is stable, reliable and maintenance-free. Meeting these requirements demands the best of modern solid-state illumination technology, delivered in Lumencor's SOLA SE FISH light engine.

The SOLA SE FISH light engine seamlessly combines the outputs of five solid-state light sources. We offer a choice between ultraviolet (SOLA SE 365 FISH) and violet (SOLA SE FISH) sources. The other four component light sources are common to both models (see spectral output plots shown on page 2). The resulting outputs match the excitation spectra of widely used fluorescent nucleic acid hybridization probes. Output stability is equally important in applications where inter-sample comparisons are essential. The output from the SOLA SE FISH light engine, once thermally equilibrated, typically varies by less than 0.5% over 24 hours of continuous operation.

The SOLA SE FISH light engine is easy to operate. Warm-up is essentially instantaneous, so the light output can be turned on only when you need it for data acquisition. The hours of unproductive idle time required to maintain arc lamp output stability are eliminated. Furthermore, the light output on/off status and intensity can be electronically controlled. Mechanical shutters, neutral density filters and other extraneous hardware used to control the output of conventional arc lamp sources are no longer needed. User interfaces for the electronic controls are provided by Lumencor's light engine control pod accessory and in several microscope data acquisition software packages.

The SOLA SE FISH light engine contains no parts requiring replacement or alignment, needs no routine maintenance and has a working lifetime that far exceeds that of any lamp. All SOLA light engines are mercury-free and RoHS compliant.

SOLA SE FISH light engine®

INTENSE • STABLE • RELIABLE





Features and Operating Characteristics: SOLA SE FISH Light Engine®

Features	Details
Sources	5 solid-state sources operating simultaneously to produce white light
Wavelength Range	350–680 nm (SOLA SE 365 FISH) or 380–680 nm (SOLA SE FISH)
Output Power	~3.4 W [#]
Light Output	Built-in output adapter for 3 mm liquid light guide*, with safety interlock
Light Delivery	LLG output connects to microscope via Lumencor collimator*
Manual Control	Light output switch (front panel) and plug for foot pedal* (rear panel)
Electronic Control	Light output on/off and intensity control (0–100%, 1% increments) via USB serial connection. Electronic gate (>3.3 V) via rear panel BNC
Warranty	36 months
Power Requirements	120 W, 24 VDC, 5 A. Power supply and cord included with all orders.
Dimensions (W x L x H)	13 cm x 26 cm x 16 cm
Weight	3.6 kg

Items marked (*) are optional and are not included with SOLA SE FISH light engine shipments unless specifically ordered. #Measured at output of 3 mm diameter liquid light guide (LLG) SpectrumOrange[™], SpectrumGreen[™], SpectrumAqua[™], SpectrumBlue[™], SpectrumRed[™] and SpectrumFRed[™] are trademarks of Vysis, Inc. Semrock filter sets are supplied by Semrock, Inc. (a subsidiary of IDEX Corporation), www.semrock.com. Chroma filter sets are supplied by Chroma Technology Corporation, www.chroma.com.



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