

## Series ST-5100 LED Stroboscope

**The ST-5100** is a portable, light-weight stroboscope with trigger light activation that utilizes 21 super bright CREE High Powered LED lamps. The ST-5100's LED array provides a bright, stable strobe light over a wide measurement range with a lifetime far exceeding xenon-lit stroboscopes. Unique to the ST-5100 is an auto-speed detection laser that translates speed sensed directly over to the flash rate of the LED's simplifying operation. Containing a rechargeable lithium battery, a single charge is able to last up to a full 5 hours of operation. The ST-5100 is designed for speed and frequency measurements in motion and vibration analysis applications. It is ideal for predictive and preventive maintenance applications such as: motors, shafts, roto-gravure printing, extruders, blow molding, wire lettering and striping, engraving, pulse jets, water jets, fans, cams, gear teeth, belt inspections, fuel injectors, vibration analysis, audio speaker analysis, spindle spinning, cutting blade timing and sharpness, plus many more in the printing, packaging, textile, automotive, cable, mining, steel, chemical, optical, medical and shipbuilding industries.



### Features

- *Motion detection laser translates speed sensed directly over to light output flash rate simplifying operation.*
- *Large 21 LED array creates large, bright viewing area.*
- *Quick and easy flash-control adjustment with  $\times 2 / \div 2$  combined with fine tuning  $\pm$  buttons enables precise flash setting.*
- *Backlit LCD Display aids viewing in poorly lit areas.*
- *Large handle grip with trigger style activation lessens strain holding for long periods.*
- *Internal, fast-charge rechargeable battery.*
- *External sensor flash activation capability with separate sensor wired with included connection cable.*



**ST-5100 Large LED array  
& light-trigger activation**

## Specifications

<b>Flash Rate Range</b>	30 to 120,000 FPM ; 0.5-2000 Hz
<b>Accuracy</b>	0.01% $\pm$ 1 digit of F.S. @ 77° F (25°C)
<b>Lux Rating (Approx.)</b>	6000 FPM & 85 Brightness: Distance 8" (20 cm) 9500 lx with 7" (178 mm) irradiation dia., Distance 20" (50 cm) 2275 lx with 11" (279 mm) irradiation dia. 1500 FPM & 85 Brightness: Distance 8" (20 cm) 4250 lx with 7" (178 mm) irradiation dia., Distance 20" (50 cm) 1375 lx with 11" (279 mm) irradiation dia
<b>Lamp Lifetime</b>	Approximately 3~5 years depending on usage.
<b>Display</b>	Backlit LCD
<b>Resolution</b>	30-120,000 = 0.1 FPM; 0.5~2000 Hz = 0.1 Hz
<b>Flash Duration</b>	0.1°- 2.5° = 1-100 on display
<b>Power Requirement</b>	100-240 VAC 50/60 Hz
<b>Battery</b>	Lithium DC 12.6V 2600 mAh
<b>Battery Life</b>	Approx. 5 hours depending on settings
<b>External Sensor Input</b>	12 V Pulse
<b>Sensor Power Supply</b>	12 V dc up to 200 mA
<b>Input Pulse Width</b>	Over 50 $\mu$ s
<b>Temperature Limits</b>	32-95°F (0-35°C)
<b>Humidity Limits</b>	35 to 85% RH
<b>Enclosure</b>	ABS
<b>Product Weight</b>	0.62 lb (280 g)
<b>Package Weight</b>	2.8 lb (1.3 kg)
<b>Dimensions</b>	9 x 3.4 x 1.6" (228 x 86 x 40 mm)
<b>Approvals</b>	CE, RoHS
<b>Warranty</b>	1 Year
<b>Included Accessories</b>	AC power adapter, Carrying Case, Sensor Input Cable

## Ordering Details

<b>ST-5100</b>	Portable, digital LED Stroboscope with internal rechargeable battery, trigger activation
<b>NIST-STROBE</b>	NIST traceable certificate for digital stroboscopes, includes data



**ST-5100 with included carrying case,  
charger and sensor connection cable.**