

SKF Stroboscope TKRS 41

High performance hand-held stroboscope for machine inspections



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The SKF TKRS 41 is a high performance stroboscope for visually inspecting running machines and for determining the machine speed. The stroboscope is robust and characterised by its excellent brightness, allowing usage in challenging industrial environments. The built-in laser speed measurement and simple controls help users to quickly set the correct flash rate and obtain clear “frozen” images for inspection.



The SKF TKRS 41 is designed for general maintenance tasks and with its standard operating mode, it is streamlined for fast and straightforward usage. The professional mode can be activated for more demanding applications, for example when enhanced input signal modification is needed to trigger the stroboscope with machine signals. For more convenience during inspections, the “SLOW” function can be used to examine all parts of the rotating machine in slow-motion.

- **High brightness & operating time** - Powerful array of 118 LEDs delivering up to 8 000 lux of luminescence for usage in almost any environment
- **Slow mode** - Frozen images rotate in slow motion and support convenient inspection
- **Portable and sturdy** - Lightweight aluminium housing with integrated battery and rubber bumper strips for use in industrial environments
- **Easy operation** - Ergonomic and intuitive controls allow quick setting of the correct flash rate
- **Automatic laser synch** - Build-in laser speed measurement, with automatic synchronization of the flash rate, eliminates the need to search for the right frequency
- **Professional input signal modulation** - Machine input signals can be used and modulated to trigger the stroboscope



Typical applications

The SKF TKRS 41 is a portable, high-performance stroboscope for visual inspections. It is suitable for general maintenance in challenging industrial environments and the input trigger can be used for advanced inspections in production processes and testing equipment.

- **General maintenance** - Inspection of running machines for visible damages, such as fan blades, shafts, couplings, belts, chains, gears, etc.
- **Paper production** - Setup and control of paper production quality during operation
- **Textile industry** - Installation and inspection of production processes such as spindles or weaving patterns
- **Printing industry** - Check of printing quality during production
- **Test equipment** - Analysis of materials and components during fast movements such as analysis of resonance behaviours

High performance

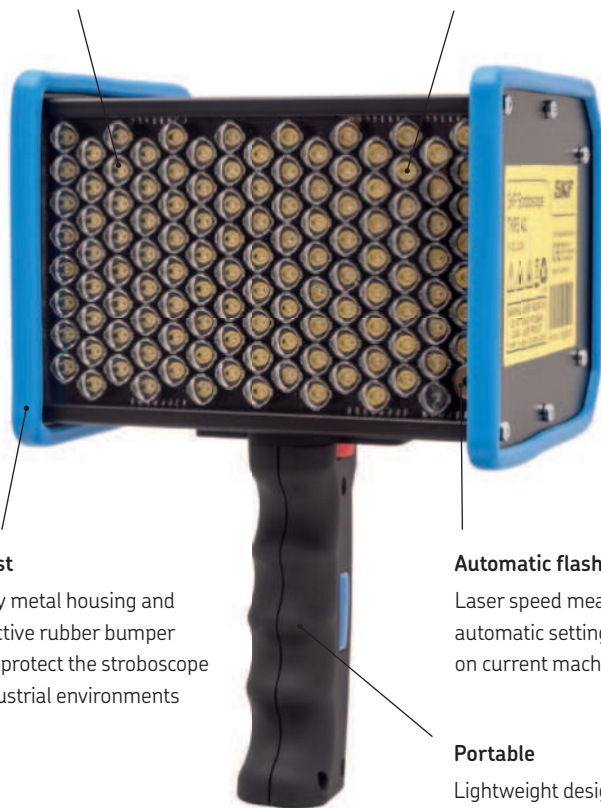
118 high-performance LEDs deliver up to 8000 lux brightness

Flash rate

Flash frequency from 30 to 300000 flashes per minutes

Professional applications

External trigger, input signal manipulation and continuous operation with external power, allow the stroboscope to be used for advanced inspections



Robust

Sturdy metal housing and protective rubber bumper strips protect the stroboscope in industrial environments

Automatic flash synchronisation

Laser speed measurement allows automatic setting of flash rate based on current machine speed.

Backlight display

Excellent readability with large, backlight LCD display

Portable

Lightweight design and ergonomic handle give great portability and up to 7 hours of continuous use with integrated battery

Technical data

Designation	TKRS 41	Display	Multi-line backlight LCD
Flash rate range	30 to 300 000 flashes per minute (f/min)	Controls	Mode selector switch and rotary/push knob
Flash rate accuracy	$\pm 0,02\%$ (± 1 digit / $\pm 0,025\ \mu\text{s}$)	External trigger input	3–30 V / max. 5 mA (potential-free optocoupler) via DIN 41524 5-pin plug (included)
Flash setting and display resolution	$\pm 0,1$ (30 to 999.9 f/min) $\pm 1,0$ (1 000 to 9 999 f/min) ± 10 (10 000 to 300 000 f/min)	External trigger range	0 to 300 000 f/min
Tachometer range	30 to 300 000 r/min	Case dimensions	345 x 165 x 270 mm (13.6 x 6.5 x 10.6 in)
Tachometer accuracy	$\pm 0,02\%$ or ± 1 digit, whichever is greater	Unit weight	1,15 kg (2.53 lb)
Flash source	118 LEDs	Total weight	2,4 kg (5.3 lb)
Flash duration	adjustable, 0,025° – 3,0°	Operating temperature	0 to 40 °C (32 to 104 °F)
Light power	8 000 lux at 1° flash duration and 0,3 m (12 in) distance		
Power source	Li-ion battery (rechargeable); continuous operation with power supply		
Run time per charge	ca. 2:30 h @ 0,50° (~4000 lux) ca. 5:00 h @ 0,25° (~2000 lux)		
Charger and power supply	110-230V, 50/60Hz, EU/US/UK/AUS plugs		



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