

SKF Stroboscopes TKRS series

High-performance, hand-held stroboscopes for visual inspection



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SKF offers a wide range of portable TKRS stroboscopes for visual inspection of running machines in challenging industrial environments. These portable tools provide early detection of abnormalities to help schedule maintenance tasks and reduce additional loads on rotating equipment in order to reach planned performance levels. Designed for ease of use, the four TKRS models offer from 3 to 118 ultra-bright LEDs. Each stroboscope features a large screen and multifunctional selector switch to help you quickly navigate to the correct menu. Brightness and performance levels are adjustable.

TKRS 11

- Quick speed selection with rotary button
- Black and white LCD display
- Three ultra-bright LEDs



TKRS 21

- High luminescence with seven ultra-bright LEDs
- Multi-line backlit TFT



TKRS 31

- Built-in laser tachometer with flash synchronization
- Pro-mode with additional features like slow motion phase shift
- Trigger input and output with signal modification



TKRS 41

- Extreme luminescence with 118 ultra-bright LEDs
- Portable operation with built-in rechargeable battery
- Continuous operation for long term inspection with power adapter
- Flash synchronization from laser tachometer or trigger input



General benefits of TKRS series:

- Intuitive operation for fast and easy inspection jobs
- Ergonomic and robust design for portable usage in industrial environments
- Bright LEDs with long lifetime and continuous operation
- Tripod mount for stationary inspection

Applications and industries:

- **General industry** – Inspection of fans, gears, belts, chains, couplings, shafts, etc.
- **Paper** – Quality control
- **Textile** – Setup/Inspection of production processes, especially spindles and weaving patterns
- **Printing** – Quality control
- **Test equipment** – Analysis of materials and components during fast movements, including component behavior under vibration or resonance frequency tests

Technical data				
Designation	TKRS 11	TKRS 21	TKRS 31	TKRS 41
Light Power	>2 000 Lux at 3° flash duration and 0,3 m (12 in.) distance	>6 200 Lux for at 3° flash duration and 0,3 m (12 in.) distance	>5 600 Lux at 3° flash duration and 0,3 m (12 in.) distance	8 000 lux at 1° flash duration and 0,3 m (12 in.) distance
Brightness (flash duration)	adjustable, 0,2°–5,0°	adjustable, 0,2°–5,0°	adjustable, 0,2°–5,0°	adjustable, 0,025° – 3,0°
Accuracy	±0,02% (±1 digit / ±0,025 µs) whichever is greater	±0,02% (±1 digit / ±0,025 µs) whichever is greater	±0,02% (±1 digit / ±0,025 µs) whichever is greater	±0,02% (±1 digit / ±0,025 µs) whichever is greater
Laser speed measurement	No	No	Yes	Yes
Phase shift	Yes	Yes	Yes with slow motion function	Yes with slow motion function
Run time ca.	ca. 5:30 h @ 1° (100% display brightness) ca. 7:45 h @ 0,2° (20% display brightness)	ca 3:00 h @ 1° (100% display brightness) ca. 6:45 h @ 0,2° (20% display brightness)	ca. 3:45 h @ 1° (100% display brightness) ca. 8:15 h @ 0,2° (20% display brightness)	ca. 2:30 h @ 0,50° (~4000 lux) ca. 5:00 h @ 0,25° (~2000 lux)
Display	Black and White LCD	Multi-line backlight TFT	Multi-line backlight TFT	Multi-line backlight LCD
Power source	3 x AA batteries (included)	3 x AA batteries (included)	3 x AA batteries (included)	internal Li-ion battery (rechargeable); continuous operation with power adapter (included)
Power adapter and charger	N/A	N/A	N/A	110-230 V, 50/60 Hz, EU/US/UK/AUS plugs
External trigger range	N/A	N/A	30 to 300 000 f/min	0 to 300 000 f/min
External trigger connection	N/A	N/A	Plug: 3,5 mm TRS plug (included) Input: 3 - 30 V / max. 5 mA (NPN) Output: up to 30V / max 50 mA (NPN)	Plug: 5-pin plug DIN 41524 (included) Input: 3 - 30 V / max. 5 mA (potentialfree optocoupler)
Signal modification	N/A	N/A	Edge selection, Multiplier, Divider, Delay	Edge selection, Multiplier, Divider, Delay
Instrument dimensions	225 x 78 x 50 mm (8.9 x 3 x 2 in.)	225 x 78 x 50 mm (8.9 x 3 x 2 in.)	225 x 78 x 50 mm (8.9 x 3 x 2 in.)	Without rubber protection 150 x 130 x 112 mm (6.0 x 5.1 x 4.4 in.)
Instrument weight (incl. batteries)	0,29 kg (0.64 lb)	0,29 kg (0.64 lb)	0,3 kg (0.65 lb)	1,15 kg (2.53 lb)
Case dimensions	260 x 180 x 85 mm (10.2 x 7.1 x 3.3 in.)	260 x 180 x 85 mm (10.2 x 7.1 x 3.3 in.)	260 x 180 x 85 mm (10.2 x 7.1 x 3.3 in.)	345 x 165 x 270 mm (13.6 x 6.5 x 10.6 in.)
Total weight (case + instrument)	0,78 kg (1.7 lb)	0,78 kg (1.7 lb)	0,79 kg (1.7 lb)	2,4 kg (5.3 lb)



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