

Application

The SKF Stroboscope TKRS 10 is a portable, compact, easy-to-use stroboscope that enables the motion of rotating or reciprocating machinery to appear frozen.

It allows such applications as fan blades, couplings, gear wheels, machine tool spindles and belt drives to be inspected while running. The TKRS 10 stroboscope is useful for ODR programmes and is an essential instrument for maintenance technicians.

Description

The SKF Stroboscope TKRS 10 is a hand-held instrument supplied in a sturdy carrying case with a rechargeable battery pack, a 100-240V charging adapter with four different plug inserts for world-wide use and a spare flash tube.

The stroboscope can produce flashes between 40-12500 flashes per minute. When the flash rate coincides with the rotational speed (r/min.) or reciprocating speed (c/min. - cycles per minute), the motion of the machine appears frozen.

The operator can then inspect the machinery, as the machinery appears to be a stationary state. The flash rate can be adjusted manually by a rotary knob, or by using the x2 or +2 buttons for rapid adjustment.

A phase shift setting allows for the feature of interest to be rotated to the correct position for inspection. This is useful when, for example, a particular fan blade requires inspection and is occluded from the initial view. The TKRS 10 can trigger a SKF Microlog by using the optional cable TKRS C1. The compatible Microlog are the Microlog MX, Advisor Pro, Consultant, GX, AX. Please note that the stroboscope does not have any tracking filter capabilities. It is not suitable for balancing machines whose speed could vary during the balancing process.



When using a stroboscope, do NOT touch the machinery being inspected. Danger of personal injury.



Technical data

Designation	TKRS 10
Flash rate range	40 to 12 500 flashes per minute (f/min.)
Flash rate accuracy	±0,5 f/min. or ±0,01% of reading, whichever is greater
Flash setting and display resolution	100 to 9 999 f/min.; 0,1 f/min., 10 000 to 12 500 f/min.; 1 f/min.
Tachometer range	40 to 59 000 r/min.
Tachometer accuracy	±0,5 r/min. or ±0,01% of reading, whichever is greater
Flash source	Xenon tube: 10 W
Flash duration	9–15 ms
Light power	154 mJ per flash
Power pack type	NiMH, rechargeable and removable
Power pack charge time	2–4 hours
Run time per charge	2,5 hours at 1 600 f/min., 1,25 hours at 3 200 f/min.
Battery charger AC input	100–240 V AC, 50/60 Hz
Display	8 character by 2 line LCD, alphanumeric
Display update	continuous
Controls	Power, x2, +2, phase shift, external trigger
External trigger input	0–5 V TTL type via stereo phono jack
EXTL. trigger to flash delay	5 ms maximum
Clock output 0–5 V TTL	Type signal via stereo phono jack
Weight	650 g (1 lb, 7 oz.)
Operating temperature	10 to 40 °C (50 to 104 °F)
Storage temperature	–20 to +45 °C (–4 to +113 °F)

Accessories and spare parts

Designation	Description
TKRS 10	Stroboscope
TKRS BAT	Spare battery pack
TKRS 1-BULB	Spare light bulb & lens cover
TKRS C1	Microlog connectivity cable



Epilepsy & seizures

Stroboscopes use flashing lights, and a few people may experience epileptic seizures when using them.

Consult your physician before using the TKRS 10, if you have an epileptic condition or experience any of the following symptoms

whilst using the TKRS 10: altered vision, eye or muscle twitching, other involuntary movements, loss of awareness of your surroundings, mental confusion and/or convulsions.

