

Easy, cost effective inspection in a flash

SKF Stroboscopes TKRS series

The SKF Stroboscopes, TKRS 10 and TKRS 20 are portable, compact, easy-to-use stroboscopes that enable the motion of rotating or reciprocating machinery to appear frozen. They allow such applications as fan blades, couplings, gear wheels, machine tool spindles and belt drives to be inspected while running. TKRS stroboscopes are useful for ODR programmes and are an essential instrument for maintenance technicians.



TKRS 10

- Flash rates of up to 12 500 flashes per minute cover a wide range of applications
- Easy to read LCD display
- Xenon flashtube source lasts for at least 100 million flashes
- Supplied with an extra flashtube to minimise unit downtime
- Rechargeable power pack allows up to 2,5 hours of use between charging

The TKRS series have the following features:

- Ergonomic controls enable the flash rate to be set in a matter of seconds
- Phase shift mode enables the viewing of the object of interest to be rotated to the correct position for viewing; especially useful for gear wheels and fan blade inspection
- For ease of use for extended periods, they are equipped with a tripod mounting thread
- Supplied in a sturdy carrying case with universal charger



TKRS 20

- Low energy consuming LED light source lets the rechargeable power pack to typically operate for at least twelve hours
- Bright and powerful flash gives a good target illumination at a distance, with a focused viewing area, and is ideal for outdoor use
- Flash rates of up to 300 000 flashes per minute cover most high speed applications. For routine inspections, the powerful lamp mode is useful
- A remote optical sensor is included enabling the flash rate to be easily triggered, and also enables the stroboscope to be used as a tachometer
- Easy to read LCD display shows user settings, and enables the ten user programmable flash rate memories to be quickly recalled
- Using the optional cable TKRS C1, the TKRS 20 can be connected to a SKF Microlog



Technical data

| Designation | TKRS 10 | TKRS 20 |
|--------------------------------------|--|---|
| Flash rate range | 40 to 12 500 flashes per minute (f/min.) | 30 to 300 000 flashes per minute (f/min.) |
| Optical sensor flash rate range | Not applicable | 30 to 100 000 f/min. |
| Flash rate accuracy | ±0,5 f/min. or ±0,01% of reading, whichever is greater | ±1 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. | 30 to 9 999 f/min.; 0,1 f/min., 10 000 to 300 000 f/min.; 1 f/min. |
| Tachometer range | 40 to 59 000 r/min. | 30 to 300 000 r/min. |
| Tachometer accuracy | ±0,5 r/min. or ±0,01% of reading, whichever is greater | ±0,5 r/min. or ±0,01% of reading, whichever is greater |
| Flash source | Xenon tube: 10 W | LED |
| Flash duration | 9–15 µs | 0,1°–5° |
| Light power | 154 mJ per flash | 1 600 lux at 6 000 f/min. at 0,2 m (8 in.) |
| Power pack type | NiMH, rechargeable and removable | NiMH, rechargeable and removable |
| Power pack charge time | 2–4 hours | 2–4 hours |
| Run time per charge | 2,5 hours at 1 600 f/min., 1,25 hours at 3 200 f/min. | 12 hours typical usage 6 hours with optical sensor |
| Battery charger AC input | 100–240 V AC, 50/60 Hz | 100–240 V AC, 50/60 Hz |
| Display | 8 character by 2 line LCD, alphanumeric | 8 character by 2 line LCD, alphanumeric |
| Display update | continuous | continuous |
| Controls | Power, ×2, × ¹ / ₂ , phase shift, external trigger | Power, ×2, × ¹ / ₂ , phase shift, external trigger, pulse length and memory |
| External trigger input | 0–5 V TTL type via stereo phono jack | 0–5 V TTL type via stereo phono jack |
| EXTL. trigger to flash delay | 5 µs maximum | 5 µs maximum |
| Clock output 0–5 V TTL | Type signal via stereo phono jack | Type signal via stereo phono jack |
| Weight | 650 g (1 lb, 7 oz.) | 600 g (1 lb, 5 oz.) |
| Carrying case dimensions | 360 × 110 × 260 mm (14.2 × 4.3 × 10.2 in.) | 360 × 110 × 260 mm (14.2 × 4.3 × 10.2 in.) |
| Operating temperature | 0 to 45 °C (32 to 113 °F) | 0 to 45 °C (32 to 113 °F) |
| Storage temperature | –20 to +45 °C (–4 to +113 °F) | –20 to +45 °C (–4 to +113 °F) |