

TKRT Series

# SKF Tachometers

Digital devices to gather critical machine data



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## SKF Tachometers

SKF offers its TKRT range of tachometers, which use laser or contact measurement to determine the rotational and linear speed of rotating equipment.

Each handheld device is compact in design, and offers fast, accurate measurement. The laser sensor allows measurements to be made at a safe distance from rotating machinery. Each device is supplied with contact adaptors and uses standard or rechargeable batteries.

Output information is clearly displayed on a large, easy-to-read screen.

### TKRT 10

Digital tachometer

- Laser/contact measuring system
- Wide speed measurement range
- Multiple measurement modes
- Large, back-lit LCD display
- Angular range of  $\pm 45^\circ$  for easy measuring
- Up to 10 readings stored for reference
- Includes basic set of contact adaptors

### TKRT 21

Multi-functional digital tachometer

- Laser/contact measuring system
- Wide speed measurement range
- Multiple measurement modes
- Large LCD display
- Includes basic set of contact adaptors
- Uses standard or rechargeable batteries

### TKRT 31

Advanced digital tachometer

- Large colour-backlit TFT display
- Measures linear and rotational speed, and distances
- Includes full set of contact adaptors
- Large angular range simplifies measurement, where straight-line access is difficult



TKRT 10



TKRT 21



TKRT 31



Measurement modes include: rotational speed, total revolutions, frequency, surface speed and length – in both metric and imperial units. The breadth of measurement modes, and wide speed range, make the tachometers suitable for use in a variety of applications.

The TKRT 10 is a well-established entry level model. The TKRT 21 offers higher performance, such as a greater measuring distance and angle of operation. TKRT 31 has a wide speed range and a large number of measurement modes, a colour TFT screen and a full set of contact adaptors.

Enclosed parts for contact measurement

TKRT 10

- Adaptor
- Conical tips
- Wheel

TKRT 31

- Adaptor
- Extension shaft
- Conical tips
- Wheels (2 sizes)

TKRT 21

- Adaptor
- Conical tips
- Wheel



**Multiple machines**

A wide speed range and diversity of measurement modes makes the TKRT series tachometers suitable for monitoring many types of rotating machinery. These include:

- Electric motors
- Conveyors
- Rotary feeders
- Grinders
- Dryers
- Cooling equipment
- Worm wheels
- Elevators

**Industrial applications**

Some typical industries and areas where these devices can be used include:

- Power plants
- Recycling
- Automotive
- Materials handling
- Food & beverage
- Paper mills

<b>Technical data</b>			
<b>Designation</b>	<b>TKRT 10</b>	<b>TKRT 21</b>	<b>TKRT 31</b>
<b>General</b>			
Memory	10 readings memories	–	Yes, 5 slots
Low battery indicator	Yes	Yes	Yes
Auto switch off	After 15 seconds	Yes	Yes
Display	–	LCD	Multi-line backlight TFT
Display update	–	Continuous	Continuous
Controls	–	Direct selector switches	Direct selector switches
Housing material	–	ABS (plastics)	ABS (plastics)
<b>Measurement</b>			
Optical modes	r/min and Hz	r/min and Hz	r/min and Hz
Contact modes	r/min, metres, inches, yards, feet, per min, Hz	r/min and Hz, meters, feet, inch, per min and per sec	r/min and Hz, meters, feet, inch, per min and per sec
Count modes	Total revs, metres, feet, yards	Distance mode	Distance mode
Speed capture feature	–	Maximum, Minimum or Average rate	Maximum, Minimum or Average rate
Linear speed	0,2 to 1 500 metres/min (4 500 ft/min)	Meters, feet, inch, per min and per sec	Meters, feet, inch, per min and per sec
<b>Optical measurement</b>			
Rotational speed range	3 to 99 999 r/min	1 to 99 999 r/min	1 to 99 999 r/min
Accuracy	± 0.05% of reading ± 1 digit	± 0.01% of reading ± 1 digit	± 0.01% of reading ± 1 digit
Measuring distance	50 to 500 mm (1.9 to 19.7 in)	25 to 1 200 mm (1 to 47 in)	25 to 1 200 mm (1 to 47 in)
Angle of operation	± 45°	± 30°	± 30°
Laser sensor	Built-in class 2 laser	Built-in class 2 laser	Built-in class 2 laser
<b>Contact measurement</b>			
Rotational speed range	2 to 20 000 r/min	Max. 20 000 r/min for 36 000 sec	Max. 20 000 r/min for 36 000 sec
Accuracy	± 1% of reading ± 1 digit	± 0.1% of reading ± 1 digit (> 120 r/min)	± 0.1% of reading ± 1 digit (> 120 r/min or "high accuracy") "low speed accuracy" at < 120 r/min
Contact adaptors	Included with conical tip, conical recess and wheel	Included with removable cones and wheel	Included with removable cones and wheels
<b>Battery and power</b>			
Power source	1x 9V alkaline type IEC 6F22	2 x AA batteries, rechargeable can be used	2 x AA batteries, rechargeable can be used
Run time ca.	12 hours continuous use	50% Laser-On: 12:00 h	20% Display brightness, 50% Laser-On, 50% Bluetooth-On: 8:00 h 100% Display brightness, 50% Laser-On, 50% Bluetooth-On: 3:30 h
Additional power source	6 V DC port (charger not included)	–	–
<b>Size and weight</b>			
Product dimensions	160 × 60 × 42 mm (6.3 × 2.4 × 1.7 in)	295 × 70 × 38 mm (11.6 × 2.8 × 1.5 in)	295 × 70 × 38 mm (11.6 × 2.8 × 1.5 in)
Case dimensions	260 × 85 × 180 mm (10.3 × 3.4 × 7.0 in)	260 × 85 × 180 mm (10.2 × 3.3 × 7.1 in)	260 × 85 × 180 mm (10.2 × 3.3 × 7.1 in)
Unit weight	160 g (0.35 lbs)	270g (0.6 lb)	270g (0.6 lb)
Total weight (incl. case)	680 g (1.5 lbs)	850g (1.9 lb)	850g (1.9 lb)
<b>Operating requirements</b>			
Operating temperature	0 to 50 °C (32 to 122 °F)	0 to 40 °C (32 to 104 °F)	0 to 40 °C (32 to 104 °F)
Storage temperature	- 10 to 50 °C (14 to 122 °F)	-20 to 45 °C (-4 to 113 °F)	-20 to 45 °C (-4 to 113 °F)
Type of protection for indication only	IP 40	IP 40	IP 40
Case contents	1 × Tachometer TKRT 10 1 × Set of 3× contact adaptors 1 × 9V battery 1 × Set of reflective tape 1 × Instructions for use	1 × Tachometer TKRT 21 2 × Conical tips 1 × Wheel 2 × AA batteries 1 × Set of reflective tape 1 × Instructions for use	1 × Tachometer TKRT 31 1 × Extension shaft 2 × Conical tips 2 × Wheels 2 × AA batteries 1 × Set of reflective tape 1 × Instructions for use