

SKF TKRT 10



Instructions for use
Mode d'emploi
Bedienungsanleitung
Instrucciones de uso

Manuale d'istruzioni
Instruções de uso
使用说明书
Инструкция по эксплуатации

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EU Declaration of Conformity

TKRT 10

We, SKF MPT, Meidoornkade 14, 3992 AE Houten, The Netherlands herewith declare under our sole responsibility that the products described in these instructions for use, are in accordance with the conditions of the following Directive(s):

EMC DIRECTIVE 2014/30/EU

RoHS DIRECTIVE (EU) 2015/863

and are in conformity with the following standards:

EN 61 326-1:2013, EN 61 326-2-1:2013,

EN 61 326-1:2012, EN 61 326-2-1:2012.

The laser is classified in accordance with the EU norm EN 60 825-1:2014

Houten, The Netherlands, September 2022



Guillaume Dubois
Manager Quality and Compliance



Safety recommendations

- Always read and follow the operating instructions for use.
- Always wear safety goggles when using the tachometer.
- Never stare directly into the laser source.
- Never open the instrument and attempt to adjust the output of the laser.
- Remove the battery when the instrument is not in use for an extended period.
- All repair work should be taken care of by an SKF repair shop.



UK Declaration of Conformity

TKRT 10

We, SKF MPT, Meidoornkade 14, 3992 AE Houten, The Netherlands herewith declare under our sole responsibility that the products described in these instructions for use, are in accordance with the conditions of the following Directive(s):

Electromagnetic Compatibility Regulations 2016 (2016 No. 1091)

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (2012 No. 3032)

and are in conformity with the following standards:

EN 61 326-1:2013, EN 61 326-2-1:2013,

EN 61 326-1:2012, EN 61 326-2-1:2012.

The laser is classified in accordance with the EU norm EN 60 825-1:2014

The person authorised to compile the technical documentation on behalf of the manufacturer is SKF (U.K.) Limited, 2 Canada Close, Banbury, Oxfordshire, OX16 2RT, GBR.

Houten, The Netherlands, September 2022



Guillaume Dubois
Manager Quality and Compliance

**UK
CA**

1. General features

The SKF laser tachometer set TKRT 10 features a large LCD backlit display that gives excellent visibility in most applications.

It provides fast and accurate Contact and Non-Contact rotational and surface speed measurements of rotating objects.



It is supplied with 3x contact adaptors for rpm and linear speed contact applications.

Other features include 10 memories, Maximum and Minimum and Average speed modes.

2. Technical data

General	
Display	5 digit LCD backlit display
Displayed resolution	0,1 r/min up to 10 000 r/min, otherwise 1 r/min
Memory	10 readings memories
Low battery indicator	Yes
Auto switch off	After 15 seconds

Measurement	
Optical modes	r/min, hertz
Contact modes	r/min, metres, inches, yards, feet, per min, hertz
Count modes	Total revs, metres, feet, yards
Sampling time	0,5 seconds (over 120 r/min)
Linear speed	0,2 to 1 500 metres/min (4 500 ft/min)

Optical measurement

Rotational speed range	3 to 99 999 r/min
Accuracy	±0,05% of reading ±1 digit
Measuring distance	50 to 500 mm (1.9 to 19.7 in)
Angle of operation	±45°
Laser sensor	1 × built-in class 2 laser

Contact measurement

Rotational speed range	2 to 20 000 r/min
Accuracy	±1% of reading ±1 digit
Contact adaptors	Included with conical tip, conical recess and wheel

Battery and power

Battery	1 × 9 V alkaline type IEC 6F22
Operation time	12 hours continuous use
Additional power source	6 V DC charging port (charger not included)

Size and weight

Product dimensions	160 × 60 × 42 mm (6.3 × 2.4 × 1.7 in)
Product weight	160 g (0.35 lbs)
Carrying Case dimensions	260 × 85 × 180 mm (10.3 × 3.4 × 7.0 in)
Total weight (incl. case)	680 g (1.5 lbs)

Operating requirements

Operating temperature	0 to 50 °C (32 to 122 °F)
Storage temperature	-10 to +50 °C (14 to 122 °F)
Relative humidity	10 to 90% RH non-condensing
IP rating	IP 40

Case contents

- 1 × SKF Tachometer TKRT 10
- 1 × set of 3 × contact adaptors
- 1 × 9 V battery
- 1 × set of reflective tape
- 1 × printed instructions for use

Spare part

TKRT-RTAPE	Reflective tape
TDTC 1/A	General toolbox without inlay, size A

3. Operation

- Open the battery compartment cover and install a 9V Battery.
- **Non-Contact:**
Attach the self-adhesive reflective tape on the object whose rotational speed is to be measured. The reflective tape should be placed as close to the outer edge of the object to be measured as possible.
- **Contact:**
Select the contact tip the most suited to the application and connect it to the tachometer using the contact adapter provided.
- Press the "MEAS" button. Point the laser spot at the object or bring the contact probe to the object .
Read the measurement on the LCD display.

4. Functions description

In scan mode, the current measurement is displayed on the main display. The main display will hold the last values until the tachometer automatically turns off after 15 seconds.

Measurement Modes:

There are two measurement groups:

- Turn the instrument On by pressing the "MEAS" button.
- Press the "MODE" button to browse through the following modes: RPM, rPm, HZ, M/M, I/M, F/M, Y/M.
- Press and hold the "MODE" button for 3 seconds to switch to the next measurement group.
- Press the "MODE" button once to browse through the following modes: REV, M, In, FT, Yd.

- Once the correct mode has been selected, press and hold the “MEAS” button to start measuring.

Record a measurement:

- Keep the “MEAS” button pressed.
- Press the “MEM” button once to record a measurement.

MAX measurements, MIN measurements, AVG measurements and DATA measurements can be stored into a memory set.

The data number will then increase by one.

Retrieve a measurement:

- Press the “MEM” button to visualize the next measurement stored. MAX measurements, MIN measurements, AVG measurements and DATA measurements are available.
- Press and hold the “MEM” button to switch to next Data Set. 10 selectable data sets are available from DATA 0 to DATA 9.

Designation	Description
RPM	Non-Contact revolutions per minute measurements
rpm	Contact revolutions per minute measurements
HZ	Non-Contact /Contact frequency measurements
M/M	Contact Meter per minute measurements
I/M	Contact Inch per minute measurements
F/M	Contact Feet per minute measurements
Y/M	Contact Yard per minute measurements
REV	Revolution measurements
M	Length measurements in Meters (Using the largest diameter wheel)
In	In Length measurements in Inches (Using the largest diameter wheel)
FT	LT Length measurements in Feet (Using the largest diameter wheel)
Yd	Yd Length measurements in Yards (Using the largest diameter wheel)

5. Non-contact measurements particularities

Reflective tape for non-contact measurement:

Cut the adhesive reflective tape provided into small squares and apply a square to each rotating equipment

- a) The non-reflective area must always be greater than the reflective area.
- b) If the shaft is normally reflective, it must be covered with black tape or black paint before attaching reflective tape.
- c) Shaft surface must be clean and smooth before applying reflective tape.

Very Low RPM measurement:

When the rotation speed is very low, the user can attach more than one reflective tape square to the rotating equipment.

The reading shown must then be divided by the number of reflective tape squares used in order to obtain the real speed.

Note:

- When the battery is depleted a battery symbol will be displayed when the "MEAS" button is pressed.
- Do not to allow any liquids or moisture to get inside the tachometer.