SKF Infrared thermometers

TKTL Series

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SKF offers a wide range of portable, lightweight and easy-to-use infrared thermometers for thermal inspections. These portable tools help you to detect temperature differences in technical and non-technical applications, this in order to perceive information on abnormalities in operating.

SKF Infrared thermometers are fitted with multiple lasers which helps you to easy and more accurate target the object. The TKTL 21, 31 and 40 also offer you the option of measuring temperatures via a temperature probe. The TKTL 40 offers you the possibility of data logging and allows pictures and videos with all measurement information to be taken.

TKTL 11

Basic infrared thermometer

- LCD colour display
- 8 laser targeting
- Fixed emissivity
- High accuracy
- Fast response time
- DS ratio of 16:1

DS ratio
16:1

0,95
Emissivity

TKTL 11

TKTL 21

Advanced infrared thermometer

- LCD colour display
- 8 laser targeting
- Type-K thermocouple probe
- Adjustable emissivity
- High accuracy
- Fast response time
- DS ratio of 30:1

DS ratio
30:1

0,1–1,0
Emissivity

TKTL 21

TKTL 31

High performance infrared thermometer

- LCD monochrome display, backlit
- Dual laser targeting
- Type-K thermocouple probe
- Adjustable emissivity
- High accuracy
- Fast response time
- DS ratio of 75:1

DS ratio
75:1

0,1–1,0
Emissivity

TKTL 31

To help ensure long bearing service life, it is important to determine the condition of machinery and bearings while in operation. Good predictive maintenance will help reduce machine downtime and decrease overall maintenance costs. SKF Infrared thermometers help analysing critical environmental conditions that have an impact on bearing and machine performance.

TKTL 40

Dual laser infrared and contact video thermometer

- 2.2" TFT LCD display
- 640 x 480 pixels digital camera
- Internal memory expandable to 8 GB (Micro SD card)
- Image (JPEG) and video (MP4)
- Humidity and air temperature
- Dual laser targeting
- Type-K thermocouple probe
- Adjustable emissivity
- High accuracy
- Fast response time
- Dewpoint temperature and wet bulb temperature

DS ratio
50:1

0,1–1,0
Emissivity

TKTL 40

SKF Infrared thermometers can also be used for temperature measurements in areas such as

HVAC

- Balance room temperatures
- Monitor supply/return registers
- Test ductwork
- Examine stream traps
- Check furnace performance
- Perform energy audits

Food safety

- Check cold and hot cooking, holding and serving temperatures
- Helps ensure safe and uniform storage and transportation temperatures
- Maintain freezers, walk-ins, ovens, ranges and dishwashers

Furthermore

- Roofing, asphalt, and concrete applications
- Commercial printing
- Plastics moulding
- Fire detection/prevention
- Aviation and marine maintenance

Technical data

Designation	TKTL 11	TKTL 21	TKTL 31	TKTL 40
Temperature range using infrared	–60 to +625 °C (–76 to +1 157 °F)	–60 to +760 °C *(–76 to +1 400 °F)*	–60 to +1 600 °C *(–76 to +2912 °F)*	–50 to +1 000 °C *(–58 to +1 832 °F)*
Temperature range using probe	–	–64 to +1 400 °C *(–83 to +2 552 °F)*	–64 to +1 400 °C *(–83 to +2 552 °F)*	–50 to +1 370 °C *(–58 to +2 498 °F)*
Probe supplied	–	TMDT 2-30 included (max. 900 °C *(1 650 °F)*)	TMDT 2-30 included (max. 900 °C *(1 650 °F)*)	TMDT 2-30 included (max. 900 °C *(1 650 °F)*)
Distance-to-spot ratio	16:1	30:1	75:1	50:1
Emissivity	0.95	0,1-1,0	0,1-1,0	0,1-1,0
Measurement accuracy	+/-2% of reading or 2 °C *(4°F)* whichever is greater	+/-2% of reading or 2 °C *(4 °F)* whichever is greater	+/-1% of reading or 1 °C *(1.8 °F)* whichever is greater	+/-1% of reading or 1 °C *(1.8 °F)* whichever is greater
Operating temperatur	0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.	0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.	0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.	0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.
Storage	–10 to +60 °C *(–14 to +140 °F)* 10 to 95% R.H.	–10 to +60 °C *(–14 to +140 °F)* 10 to 95% R.H.	–10 to +60 °C *(–14 to +140 °F)* 10 to 95% R.H.	–10 to +60 °C *(–14 to +140 °F)* 10 to 95% R.H.
Response time msec	1 000	1 000	1 000	<300
Displayed resolution	0.1 °C/F (below 999.9), 1° C/F (above 1 000)	0.1 °C/F (below 999.9), 1° C/F (above 1 000)	0.1 °C/F (below 999.9), 1° C/F (above 1 000)	0.1 °C/F (below 999.9), 1° C/F (above 1 000)
Display	Colour backlit LCD	Colour backlit LCD	Monochrome backlit LCD	Colour backlit LCD
Spectral response	8-14 µm	8-14 µm	8-14 µm	8-14 µm
Measurement modes	Maximum temperatures	Maximum; Minimum; Average; Difference (between min and max); Probe/IR dual temperature	Maximum; Minimum; Average; Difference (between min and max); Probe/IR dual temperature	Maximum; Minimum; Average; Difference (between min and max); Probe/IR dual temperature
Alarm modes	–	High and low level alarm with warning sound	High and low level alarm with warning sound	High and low level alarm with warning sound
Laser	8x red targeting laser dots, Class 2	8x red targeting laser dots, Class 2	2x red targeting laser dots, Class 2	2x red targeting laser dots, Class 2
Operating time	Min. 9 hours continuous use	Min. 30 hours continuous use without laser	Min. 140 hours continuous use without laser and back light	Min. 4 hours continuous use
Measurement modes	Max. temperatures	Max, min, differential, average, probe/IR dual temperature modes	Max, min, differential, average, probe/IR dual temperature modes	Max, min, differential, average, probe/IR dual temperature modes
Auto switch off	Automatic, 15 seconds after trigger release	Automatic, 60 seconds after trigger release in IR mode and 12 minutes after trigger release in probe mode	Automatic, 60 seconds after trigger release in IR mode (60 minutes can be manually selected) and 12 minutes after trigger release in probe mode	Automatic, user selectable
HVAC functionalities	–	–	–	Wet bulb, dew point, humidity, air temperature
Photo and video	–	–	–	640 x 480 camera, images (JPEG) and video (3 GP)
Memory	–	–	–	310 MB internal memory; expandable with micro SD card (8 GB max.)
PC connection				Mini USB port, mini USB to USB cable included
Contents	1x IR thermometer (TKTL 11); 2x AAA Alkaline batteries; 1x Instructions for use	1x IR thermometer (TKTL 21); 1x Temperature probe (TMDT 2-30); 2x AAA Alkaline batteries; 1x Instructions for use; 1x Carrying case	1x IR thermometer (TKTL 31); 1x Temperature probe (TMDT 2-30); 2x AAA Alkaline batteries; 1x Instructions for use; 1x Carrying case	1x IR thermometer (TKTL 40); 1x Temperature probe (TMDT 2-30); 1x AC battery charger; 1x Mini USB to USB connection cable 1x Mini tripod 1x Instructions for use; 1x Carrying case
Product dimensions	119,2 × 171,8 × 47,5 mm *(4.7 × 6.8 × 1.9 in.)*	119,2 × 171,8 × 47,5 mm *(4.7 × 6.8 × 1.9 in.)*	203 × 197 × 47 mm *(8.0 × 7.7 × 1.8 in.)*	205 × 155 × 62 mm *(8.1 × 6.1 × 2.4 in.)*
Packing dimensions	253 × 67 × 136 mm *(9.96 × 2.64 × 5.35 in.)*	530 × 85 × 180 mm *(20.9 × 3.4 × 7.0 in.)*	530 × 85 × 180 mm *(20.9 × 3.4 × 7.0 in.)*	530 × 85 × 180 mm *(20.9 × 3.4 × 7.0 in.)*
Product weight (incl. batteries)	255,7 g *(0.56 lb)*	255,7 g *(0.56 lb)*	386,1 g *(0.85 lb)*	600 g *(1.3 lb)*
Total weight	400 g *(0.88 lb)*	1 150 g *(2.54 lb)*	1 300 g *(2.87 lb)*	1 700 g *(3.8 lb)*

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