

Infrared thermometers



Infrared thermometers are portable, lightweight instruments for safely measuring temperature at a distance. They are extremely user-friendly; simply aim and pull the trigger and the temperature is shown on the display. These robust instruments are equipped with a back-lit display and laser sighting. They are fitted with a bright LED illuminator to allow the application object to be seen even in poorly lit environments.



TKTL 10

An infrared thermometer that's an essential tool for every technician

- Maximum temperature always shown; helps identify the real hotspots
- Auto shut off feature; helps optimise battery life
- Colour display with temperature trend indication

TKTL 20

An infrared and contact thermometer offering versatile temperature measurement options

- Supplied with temperature probe TMDT 2-30 (max. 900 °C (1 652 °F)); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and low alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life
- Colour display with temperature trend indication

TKTL 30

An infrared and contact temperature thermometer with a wide measurement range and dual laser sighting

- Dual laser sighting feature defines the diameter of the area being measured; helps the user to precisely pin-point the temperature measurement area
- Supplied with temperature probe TMDT 2-30 (max. 900 °C (1 652 °F)); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and level alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life



When used in non-contact mode, the thermometer senses the thermal energy radiated from an object with an infrared detector. When pointed at an object, the infrared detector collects energy, producing a signal that the microprocessor translates as a reading on the backlit display.

As the trigger is squeezed, the object temperature is continuously measured by the infrared detector. This allows for fast and accurate realtime readings.

TKTL 40

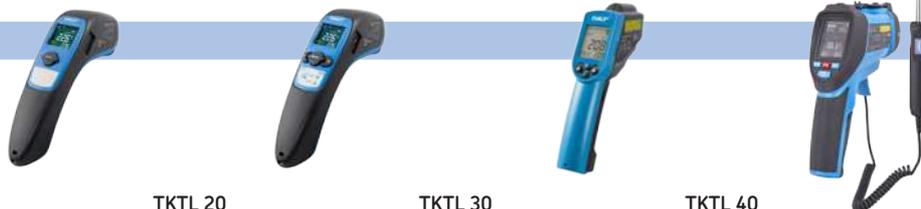
An infrared and contact temperature thermometer with video and data logging capabilities

- Built-in camera allows pictures and videos, with all measurement information to be taken, stored, recalled and exported to PC
- Environmental properties such as ambient, dew point and wet-bulb temperatures, as well as relative humidity, can be displayed and stored
- Dual laser sighting defines the temperature measurement area

- Supplied with temperature probe TMDT 2-30 (max. 900 °C (1 652 °F)) for direct contact applications. Can also be used with any other SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display
- Data logging function can be used to visualise temperature changes over time
- User selectable high and low alarm levels with audible warning signal
- User selectable auto shut off feature optimises the rechargeable battery life

	TKTL 10	TKTL 20	TKTL 30	TKTL 40
Temperature range using infrared	-60 to +625 °C (-76 to +1 157 °F)	-60 to +625 °C (-76 to +1 157 °F)	-60 to +1 000 °C (-76 to +1 832 °F)	-50 to +1 000 °C (-58 to +1 832 °F)
Temperature range using probe	-	-64 to +1 400 °C (-83 to +1 999 °F)	-64 to +1 400 °C (-83 to +1 999 °F)	-50 to +1 370 °C (-58 to +2 498 °F)
Distance to spot size	16:1	16:1	50:1	50:1
Emissivity	Pre-set 0,95	0,1-1,0	0,1-1,0	0,1-1,0

Technical data



Designation	TKTL 10	TKTL 20	TKTL 30	TKTL 40
Probe supplied	–	TMDT 2-30, suitable for use up to 900 °C (1 650 °F)	TMDT 2-30, suitable for use up to 900 °C (1 650 °F)	TMDT 2-30, suitable for use up to 900 °C (1 650 °F)
Full range accuracy	$T_{obj} = 0 \text{ to } 625 \text{ °C} \pm 2\%$ of reading or 2 °C (4 °F) whichever is greater	$T_{obj} = 0 \text{ to } 635 \text{ °C} \pm 2\%$ of reading or 2 °C (4 °F) whichever is greater	$\pm 2\%$ of reading or 2 °C (4 °F) whichever is greater	$\pm 1\%$ of reading or 1 °C (1.8 °F) whichever is greater
Environmental limits	Operation 0 to 50 °C (32 to 122 °F) 10 to 95% relative humidity	Operation 0 to 50 °C (32 to 122 °F) 10 to 95% relative humidity	Operation 0 to 50 °C (32 to 122 °F) 10 to 95% relative humidity	Operation 0 to 50 °C (32 to 122 °F) 10 to 95% relative humidity
	Storage –20 to +65 °C (–4 to +149 °F) 10 to 95% relative humidity	Storage –20 to +65 °C (–4 to +149 °F) 10 to 95% relative humidity	Storage –20 to +65 °C (–4 to +149 °F) 10 to 95% relative humidity	Storage –10 to +60 °C (14 to 150 °F) 10 to 95% relative humidity
Response time (90%)	<1 000 ms	<1 000 ms	<1 000 ms	<300 ms
LCD display resolution	0,1 °C/F from –9,9 to –199,9 otherwise 1 °C/F	0,1 °C/F from –9,9 to –199,9 otherwise 1 °C/F	0,1 °C/F from –9,9 to –199,9 otherwise 1 °C/F	0,1 ° up to 1 000 °, otherwise 1 °
Spectral response	8–14 μm	8–14 μm	8–14 μm	8–14 μm
User selectable backlit display	No, permanently on	On/Off	On/Off	No, permanently on
User selectable laser pointer	No, permanently on	On/Off	On/Off	On/Off
Measurement modes	Max temperature	Max, min, average, differential, probe/IR dual temperature modes	Max, min, average, differential, probe/IR dual temperature modes	Max, min, average, differential, probe/IR dual temperature modes
Alarm modes	–	High and low level alarm level with warning beep	High and low level alarm level with warning beep	High and low level alarm level with audible alarm
Laser	Class 2	Class 2	Class 2	Class 2
Dimensions	195 × 70 × 48 mm (7.7 × 2.7 × 1.9 in.)	195 × 70 × 48 mm (7.7 × 2.7 × 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.)
Packaging	Carton box	Sturdy carrying case	Sturdy carrying case	Sturdy carrying case
Case dimensions	–	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.)
Weight	230 g (0.5 lb)	Total: 1 100 g (2.4 lb) TKTL 20: 230 g (0.5 lb)	Total: 1 300 g (2.9 lb) TKTL 30: 370 g (0.8 lb)	Total: 1 700 g (3.8 lb) TKTL 40: 600 g (1.3 lb)
Battery	2 × AAA Alkaline type IEC LR03	2 × AAA Alkaline type IEC LR03	2 × AAA Alkaline type IEC LR03	1 × Rechargeable Li-ion Battery
Battery lifetime	18 hours	18 hours	140 hours with laser and backlight off Otherwise 18 hours	4 hours continuous use
Auto switch off	Yes	User selectable	User selectable	User selectable
HVAC functionalities	–	–	–	Wet bulb, dew point, humidity, air temperature
Photo and video mode	–	–	–	640 × 480 camera, images (JPEG) and video (3 GP)
Memory/PC connection	–	–	–	310 MB internal memory. Expandable using micro SD memory card (8 GB max.) / mini USB cable

© SKF is a registered trademark of the SKF Group.

© SKF Group 2014

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB MP/P8 10845 EN · October 2014

