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 to 625 °C ±2% of reading or 2 °C *(4 °F)* whichever is greater	T_{obj} = 0 to 635 °C ±2% of reading or 2 °C *(4 °F)* whichever is greater	±2% of reading or 2 °C *(4 °F)* whichever is greater	20 to 500 °C: ±1% of reading or 1 °C *(1.8 °F)* whichever is greater 500 to 1 000 °C: ±1,5% of reading –50 to +20 °C: ±3,5 °C *(6.3 °F)*
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 bleep	High and low level alarm level with warning bleep	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
Carrying 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 *(0.50 lb)*	Total: 1 300 g *(2.9 lb)* TKTL 30: 370 g *(0.815 lb)*	Total: 1 600 g *(2.53 lb)* TKTL 40: 600 g *(1.32 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

Technical data – Thermocouple probes

Probe type	K–type thermocouple (NiCr/NiAl) acc. IEC 584 Class 1
Accuracy	±1,5 °C *(2.7 °F)* up to 375 °C *(707 °F)* ±0,4% of reading above 375 °C *(707 °F)*
Handle	110 mm *(4.3 in.)* long
Cable	1 000 mm *(39.4 in.)* spiral cable (excl. TMDT 2-31, -38, -39, 41)
Plug	K–type mini–plug (1 260-K)