Infrared thermometers

SKF

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

- Wide measurement range from –60 to +625 °C *(–76 to +1 157 °F)*; allows temperature measurements of many industrial applications
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- Fixed emissivity of 0,95; suitable for many applications
- Maximum temperature always shown; helps identify the real hotspots
- Auto shut off feature; helps optimise battery life

TKTL 20

An infrared and contact thermometer offering versatile temperature measurement options

- Infrared temperature measurement range from –60 to +625 °C *(–76 to +1 157 °F)*
- Contact temperature measurement range from –64 to +1 400 °C *(–83 to +1 999 °F)*
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- User selectable variable emissivity between 0,1 and 1,0; allows most surface temperatures to be measured
- 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
- Supplied in a sturdy carrying case

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 30

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

- Wide infrared temperature measurement range from –60 to +1 000 °C *(–76 to +1 832 °F)*
- Contact temperature measurement range from –64 to +1 400 °C *(–83 to +1 999 °F)*
- Dual laser sighting feature defines the diameter of the area being measured; helps the user to precisely pin-point the temperature measurement area
- Distance-to-spot ratio of 50:1; allows accurate temperature readings at long distances or for measuring temperatures of small areas
- User selectable variable emissivity between 0,1 and 1,0; allows most surface temperatures to be measured
- 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
- Supplied in a sturdy carrying case



Designation	TKTL 10	TKTL 20	TKTL 30
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)*
Temperature range using probe	–	–64 to +1 400 °C *(–83 to +1 999 °F)*	–64 to +1 400 °C *(–83 to +1 999 °F)*
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)*
Environmental limits	Operation 0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.	Operation 0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.	Operation 0 to 50 °C *(32 to 122 °F)* 10 to 95% R.H.
	Storage –20 to +65 °C *(–4 to +149 °F)* 10 to 95% R.H.	Storage –20 to +65 °C *(–4 to +149 °F)* 10 to 95% R.H.	Storage –20 to +65 °C *(–4 to +149 °F)* 10 to 95% R.H.
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
(Tamb=23 ±3 °C)	T_{obj} = –60 to 0 °C ±(2 °C +0,05/degree)	T_{obj} = –60 to 0 °C ±(2 °C +0,05/degree)	
Response time (90%)	<1 000 ms	<1 000 ms	<1 000 ms
Display	LCD	LCD	LCD
Displayed resolution	0,1 °C/F from –9.9~199.9, otherwise 1 °C/F	0,1 °C/F from –9.9~199.9, otherwise 1 °C/F	0,1 °C/F from –9.9~199.9, otherwise 1 °C/F
Distance to Spot size	16:1	16:1	50:1
Spectral response	8–14 µm	8–14 µm	8–14 µm
Emissivity	Pre-set 0,95	0,1–1,0	0,1–1,0
User selectable backlit display	No, permanently on	On/Off	On/Off
User selectable laser pointer	No, permanently on	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
Alarm modes	–	High and low alarm level with warning bleep	High and low level alarm with warning bleep
Laser wavelength	635–650 nm	630–650 nm	630–650 nm
Laser	Class 2	Class 2	Class 2
Maximum laser power	1 mW	1 mW	1 mW
Dimensions	195 × 70 × 48 mm *(7.7 × 2.7 × 1.9 in)*	195 × 70 × 48 mm *(7.7 × 2.7 × 1.9 in)*	203,3 × 197 × 47 mm *(8.0 × 7.7 × 1.8 in)*
Packaging	Carton box	Sturdy carrying case	Sturdy carrying case
Case dimensions	–	340 × 200 × 65 mm *(13.4 × 7.9 × 2.6 in)*	340 × 200 × 65 mm *(13.4 × 7.9 × 2.6 in)*
Weight	230 g *(0.5 lbs)*	Total (incl. case): 940 g *(2.07 lbs)* TKTL 20: 230 g *(0.50 lbs)*	Total (incl. case): 1 080 g *(2.38 lbs)* TKTL 30: 370 g *(0.815 lbs)*
Battery	2 × AAA Alkaline type IEC LR03	2 × AAA Alkaline type IEC LR03	2 × AAA Alkaline type IEC LR03
Battery lifetime	18 hours	180 hours with laser and backlight off	140 hours with laser and backlight off. Otherwise 18 hours
Switch off	Automatic after 15 s after trigger is released	IR mode automatic after 60 s after trigger is released (60 min can be manually selected) Probe mode automatic after 12 min	IR mode automatic after 60 s after trigger is released (60 min can be manually selected) Probe mode automatic after 12 min
EMC standards	EMC 2004/108/EC	EMC 2004/108/EC	EMC 2004/108/EC

PUB MP/P8 10845 EN · January 2011