



Bearing overheating costs time and money

Accurate SKF Thermometers will help you reduce these costs

Too much deviation in an application's temperature can be an indication of upcoming machinery failure. Therefore, accurate temperature monitoring of bearings and machinery provides you with valuable information about your application's operating conditions. That allows you to intervene before problems occur, saving you the cost and time of unplanned downtime.

SKF's range of thermometers offers you high degree of measurement accuracy combined with simplicity.



General-purpose thermometer, ThermoPen TMTP 200

The SKF ThermoPen is a user-friendly, durable pocket size thermometer. Its sturdy flexible probe tip ensures effective surface contact for highly accurate temperature measurement. Since no maintenance engineer should work without one, the ThermoPen is supplied with a handy pouch with belt clip for protection and portability.

- Compact, ergonomic design
- Wide measurement range, from -40 to 200 °C (-40 to 392 °F)
- Temperature reading selection in °C or °F
- Flexible probe tip for better contact surface, providing high measuring accuracy
- Dust tight and water resistant, rated IP 65
- Maximum temperature function allows temperature peak hold
- Auto power off function
- Ultra low power consumption



Intrinsically Safe ThermoPen TMTP 200Ex

The SKF ThermoPen is also available in an intrinsically safe (Ex) version, especially designed for use in explosive hazardous areas. The Intrinsically Safe ThermoPen has been tested and approved for use in high-risk areas, such as:

- Underground as well as surface sections of mines
- Areas where explosive atmospheres caused by mixtures of air and gasses, vapours or mists are present
- Areas where explosive atmosphere caused by a mixture of air and dust is present
- Intrinsically safe; one of few thermometers approved for use in the highest risk areas
- Certified confirming to ATEX, EC type examination ISSeP02ATEX054X
- Approvals:
 - Mining I M1 EEx ia I
 - Other areas II 1GD EEx ia IIC T4 IP 65



Non-contact thermometer, ThermoLaser TMTL 260

Lightweight and compact, the SKF ThermoLaser utilises advanced class II laser beam for accurate aiming and an infrared detector for measuring temperature. The ThermoLaser is extremely user-friendly - simply aim, pull the trigger and read the temperature on the large backlit display. No contact with hot surfaces or moving parts means safer, faster and easier temperature measurement. Additionally, the ThermoLaser allows temperature measurement where contact with a conventional temperature probe should be avoided to prevent surface contamination, making it ideal to use for measuring temperature of food processing applications.

- Safely measures the temperature of hot, hazardous or hard-to-reach objects
- The large backlit LCD holds temperature reading for 7 seconds
- Wide measurement range, from -18 to 260 °C (0 to 500 °F)
- Temperature reading selection in °C or °F
- Distance to Spot size (D:S) is 6:1
- Visible Class II Laser



Dual channel digital thermometer TMDT 1300

The SKF TMDT 1300 is a high quality dual channel thermometer, which is equipped with a sensitive microprocessor allowing a high degree of temperature measurement accuracy. The thermometer is equipped with many functions such as hold maximum reading and difference between temperature 1 and temperature 2. The TMDT 1300 has an analogue output for data logging or use in combination with a temperature recorder. A flexible rubber sleeve protects the housing of the TMDT 1300 and its electronics in case of impact.

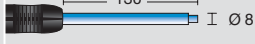

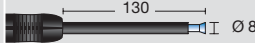
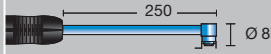
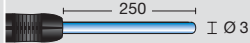

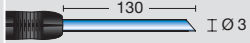
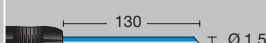


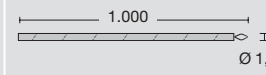
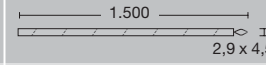
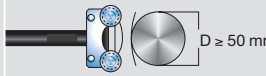


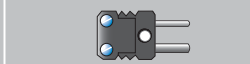
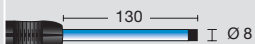
- Wide temperatures measurement range, between -50 up to 1300 °C (-50 to 1999 °F)
- Display resolution is selectable, between 0,1 and 1°
- Temperature reading in °C or °F
- Large display allows easy and clear temperature reading
- High electronics accuracy
- A flexible rubber sleeve protects the housing, and thereby protecting the electronics in case of impact
- Retractable support allows the TMDT 1300 to stand on its own, freeing the operator's hands during temperature measurement
- Suitable for use with all SKF K-type probes
- Supplied in a sturdy carrying case, complete with a standard surface probe, a battery and instructions for use



Technical and ordering details			
Designation	TMTP 200 / TMTP 200Ex		
Description	General purpose contact thermometer Intrinsically safe contact thermometer	Battery	3 x AAA (LR03) Only Duracell PC2400/MN2400 batteries are allowed in Ex areas (TMTP 200Ex)
Colour	Dark / light grey Black (TMTP 200Ex)	Average battery lifetime	4000 hours 2000 hours (TMTP 200Ex)
Temperature range	-40 to 200 °C (-40 to 392 °F)	Switch off	Button or automatic after 5 minutes
Accuracy electronics	≤ 0,5 °C (≤ 0.9 °F)	Display indications	Temperature, °C or °F, maximum temperature, out of range, defective probe, low battery
Display resolution	1 °C/°F	IP rate	IP 65
Probe	Integrated K-Type	Drop resistance	1 m (3.2 ft)
Dimensions	163 x 50 x 21 mm (6.4 x 2 x 0.8 in)	EC Type examination	ISSeP02ATEX054X (TMTP 200Ex)
Weight	95 g (0.2 lb)	Ex classification	I M1 EEx ia I (TMTP 200Ex) II 1GD EEx ia IIC T4 IP65 (TMTP 200Ex)
Designation	TMTL 260		
Description	Non-contact laser-sighted thermometer	Emissivity	Pre-set 0.95
Colour	Grey	Dimensions	152 x 101 x 38 mm (6 x 4 x 1.5 in)
Temperature range	-18 to 260 °C (0 to 500 °F)	Weight	227 g (0.5 lb)
Accuracy electronics	≤ 2% of reading or ≤ 2 °C (≤ 3.5 °F), whichever is greater.	Battery	9 V Alkaline
Display resolution	0,5 °C or 1.0 °F	Average battery lifetime	12 hours
Distance to Spot size	6:1	Switch off	Automatic after 7 seconds after trigger is released
Spectral response	7- 18 µm	Display indications	Temperature, °C or °F, hold, out of range, low battery
Designation	TMDT 1300		
Description	Dual channel digital thermometer	Accuracy electronics	± 0.3% + 1 °C at range -50 up to 199,9 °C ± 0.5% + 1 °C at range 200 up to 1000 °C ± 0.75% + 1 °C at range 1001 up to 1300 °C ± 0.3% + 2 °F at range -50 up to +199,9 °F ± 0.5% + 2°F at range 200 up to 1999 °F
Colour	Dark / light grey	Analogue output	0.1 mV per °C/°F at Resolution 1 °C/1 °F 1.0 mV per °C/°F at Resolution 0.1 °C/0.1 °F
Contents	1 x dual channel digital thermometer 1 x standard surface probe, TMDT 2-30 1 x 9 V battery Instructions for use Carrying case	Output impedance	50 Ohms
Temperature range	-50 to 1300 °C (-50 to 1999 °F)	Battery	9 V Battery IEC 6 LR61 (Alkaline)
Display resolution	Up to 199 °C/°F: 0,1 °C/°F Greater than 199 °C/°F: 1 °C/°F	Average battery lifetime	100 hours
		Temperature probe	Thermocouple, K-type (NiCr/NiAl)
		Instrument dimensions	160 x 77 x 45 mm (6.3 x 3.0 x 1.8 in)

A	B	C	D	E	F	G	H
A Probe connection T1	B Probe connection T2	C Temp. difference T1 - T2	D Hold last reading	E Hold maximum reading	F Switchable °C/°F	G Low battery indication	H Overload indication

K-type thermocouple probes

Designation	Description	Dimensions (mm)	Max. temp.	Response time
TMDT 2-30	Standard surface probe For hard surfaces such as bearings, bearing housings, engine blocks, oven shields, etc.		900 °C 1,650 °F	2,3 sec.
TMDT 2-31	Magnetic surface probe For hard, magnetic surfaces; the integral heat sink design and low mass minimise thermal inertia and provide an accurate temperature measurement.		240 °C 460 °F	7,0 sec.
TMDT 2-32	Insulated surface probe For hard surfaces where electrical wiring might cause short circuiting, e.g. electric motors, transformers, etc.		200 °C 390 °F	2,3 sec.
TMDT 2-33	Right angle surface probe For hard surfaces in heavy duty applications, e.g. machine components, engines, etc.		450 °C 840 °F	8,0 sec.
TMDT 2-34	Gas and liquid probe Flexible shank made of stainless steel for liquids, oils, acids, etc. and at high temperature, e.g. open fire (not for molten metals).		1,100 °C 2,010 °F	12,0 sec.
TMDT 2-34/1.5	Gas and liquid probe Same as TMDT 2-34 but with thin shank and faster response time. Very flexible, specially suitable for measuring temperature of gases.		900 °C 1,650 °F	6,0 sec.
TMDT 2-35	Probe with sharp tip Can be easily inserted into semi-solid materials like food-stuffs, meat, plastic, asphalt, deep-frozen products, etc.		600 °C 1,110 °F	12,0 sec.
TMDT 2-35/1.5	Probe with sharp tip Same as TMDT 2-35 but with thinner shank and faster response time for insertion into soft solids.		600 °C 1,110 °F	6,0 sec.
TMDT 2-36	Pipe clamp probe For temperature measuring on pipes, cables, etc. Diameter up to ø 35 mm (1.4 in).		200 °C 390 °F	8,0 sec.
TMDT 2-37	Extension cable For use with all K-type probes. Special lengths are available on request.			
TMDT 2-38	Wire probe Thin, light weight, very fast response, fibreglass insulated.		300 °C 570 °F	5,0 sec.
TMDT 2-39	High temperature wire probe Thin, light weight, very fast response, ceramic insulation.		1,350 °C 2,460 °F	6,0 sec.
TMDT 2-40	Rotating probe For moving or rotating smooth surfaces. Four roller bearings provide suitable contact with the surfaces. Max. velocity 500 m/min.		200 °C 390 °F	0,6 sec.
TMDT 2-41	Non-ferrous foundry probe Holder including dip-element for molten, non-ferrous metals. Highly resistant to corrosion and oxidation at high temperatures.		1,260 °C 2,300 °F	30,0 sec.
TMDT 2-41A	Dip-element Replacement dip-element for TMDT 2-41.		1,260 °C 2,300 °F	30,0 sec.
TMDT 2-42	Ambient temperature probe For measurement of ambient temperature.			
TMDT 2-43	Heavy duty surface probe Same as TMDT 2-30 but with silicon encapsulated tip for heavy duty applications.		300 °C 570 °F	3,0 sec.

In line with our policy of continuous development of our products we reserve the right to alter any part of the above specification without prior notice.

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SKF Maintenance Products

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