

PRACTICAL ADVANTAGES:

- Hugely accurate – rapid response time
- Laser marking of measurement spot
- Various measurement options
- Wide measurement range (depending on model) from -50 °C to 1,000 °C
- Alarm function (TP 8)

Laser pyrometer

For contact-free surface temperature measurement



Features and functions at a glance...

	TP4	TP8
Laser point – single laser, class 2	✓	✓
Optional Temperature display °C or °F	✓	✓
Display resolution 0.1 °C	✓	✓
Minimum and maximum temperature display	-	✓
High / low audio / optical alarm	-	✓
Differential and average value display	-	✓
Emissivity 0.95; fixed	✓	-
Emissivity – Variable, 0.1 to 1.0	-	✓
Hold displayed value	✓	✓
Backlit LCD display	✓	✓
Tripod thread 1/4-20 UNC	-	✓

TP8 For complex measurement tasks, even at high temperatures, which require particularly accurate resolution and an emissivity setting specific to the material in question, the TP8 is an optimal temperature measurement device.

For each measurement the TP8 also determines the maximum, minimum, difference and average values and presents the values as required via a function call on the display, which has back lighting and can be read very clearly, even in a poorly lit environment. For long duration measurements the TP8 can also be operated in permanent mode.

In addition this infrared thermometer has an alarm function:

Upper and lower alarm limits can be individually adjusted. As soon as the measured value lies outside the prescribed temperature range the acoustic alarm is automatically activated.

With a temperature measurement range from -50 °C to +1,000 °C and a high optical resolution of 50:1 this professional pyrometer is very suitable for reliable diagnostics and maintenance on heating, air-conditioning and ventilation plant, and also for general maintenance use in industry and by tradesmen.

TP4 The TP4 has been designed to be user-friendly without any compromises. This pyrometer is optimally suited for all users who do not want to have to work first through lots of menus in order to get to the measured result.

Aim, shoot and read the surface temperature from the display easily.

The TP4 has a laser pointer and a temperature measurement range -50 °C to + 550 °C.

People on the lookout for a fast and accurate temperature measurement method will find the optimum solution in this infrared thermometer.

Trotec laser pyrometers are essential aids for many industrial repair and maintenance tasks!

- Locate problems fast and reliably – saving time and money.
- Obtain extremely accurate measurement results.
- Can determine temperatures even of difficult-to-access or far away objects.

With the pyrometers in the Trotec *MultiMeasure series* the optimal IR thermometer is available for every user – application examples:



Building status analysis/ building control:

Determine the room temperature distribution or hot spots. Produce energy audits in as short a time as possible.

Check condensation lines for pipe coil sweating. Measure temperature at heat exchanger and process air exit.

Check the safety valves to locate device malfunctions. Localise leaks and breaks in ducts.



Heating and air-conditioning systems:

Search walls, ceilings and floors for temperature differences and determine the room temperature distribution.

Check the temperature difference at intake and exhaust vents. Check connections of air ducts for temperature peaks and poor insulation.

Measure the temperature in the exhaust duct. Obtain fast diagnosis of condensation water separators from safe distance.



Electrical system:

Discover thermal problems in live equipment in good time, e.g. transformers, contactors, relays, fuses, terminals, bus bars, batteries etc.

Automotive engineering:

Check whether cooling systems are operating correctly or whether friction, vibrations and other influences are causing brake systems or bearings to wear out. Easy diagnosis, especially when engine is running.



General repair and maintenance:

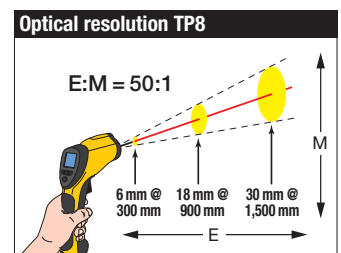
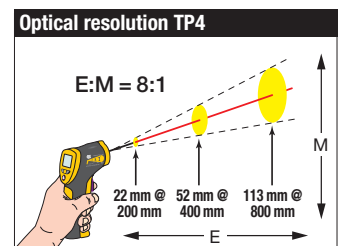
Check moving machinery parts and systems for temperature fluctuations.

Even the smallest changes can indicate malfunctions. Routine temperature checks prevent costly repairs.

Production processes:

Monitor machinery and equipment. Check the product temperature.

Technical data	TP4	TP8
Article number	ZB9100190	ZB9100193
Temperature range	-50° to 550 °C	-50° to 1,000 °C
Accuracy (at 23 °C ± 5 K ambient temp.; the higher temp. applies)	Between -50° and -20 °C: ±5 °C; between -20° and 550 °C: ±2 % of measured value or ±2 °C	-50° to -20 °C: ±5 °C; -20° to 200 °C: ±1,5 % or ±2 °C; 201 °C to 550 °C: ±2% or ±2 °C; 551 °C to 1,000 °C: ±3 % or ±5 °C
Reproducibility (higher value applies)	Within accuracy of device	
Reaction time	0.4 sec.	< 1 ms
Spectral sensitivity	6 to 14 µm	
Optical resolution (E:M)	8:1	50:1
Smallest measurement spot ø	22 mm	6 mm
Operating Conditions	Ambient temp. 0° to 50 °C; relative humidity 10 to 90 % at 30 °C, non-condensing	
Storage temperature	-20 to 60 °C	
Power supply	9V IEC 6LR61	
Battery life	approx. 10 hours	
Weight	177 g	290 g
Scope of supply	Measuring device, storage bag, 9V battery, user manual	Measuring device, hard case, 9V battery, user manual



Note about optical resolution details:
Optical resolution refers to the ratio of the distance from the measurement point (E) and the diameter (M) of the measurement spot. The greater the distance to the measurement object the greater the measurement spot detected by the device.

