

A FEW PRACTICAL BENEFITS:

Development, design, production:
100 % Trotec

Highly accurate –
rapid response time

Wide temperature measuring
range from -50 °C to +1,850 °C

Multi-point laser aiming aid for
simultaneous indication of measur-
ing point and measuring spot

Degree of emission freely
adjustable from 0.1 to 1.0

High/low alarms indicated by a
change of display colour and an
additional alarm sound

Backlit display

Bar graph indicator*

Data logger function to capture
and save up to 30 measuring points*

Combined infrared and contact
sensor temperature measurements*

Battery-saving power supply via the
USB connection of your computer* –
ideal for long-term measurements

Option for software-supported
recording of measurement series*

* depending on the model

**Finally one software for basically
all measuring devices:**

**MultiMeasure Studio
Professional**

In addition to the steadily growing num-
ber of fully compatible Trotec meters,
this software is also suitable for the
partially compatible TP10 – even with
the TP7 interfaceless or third-party
devices, you can benefit from this soft-
ware, as it enables cross-device anal-
ysis and management of all measure-
ment projects and customer data in a
single application!

**Create professional measurement
reports in next to no time!**

The unique report generating function
of MultiMeasure Studio Professional al-
ready comes with completely formulated
boilerplate texts for the fields of building
diagnostics, moisture measurement, leak
detection and thermography.

*More information can be found
starting on catalogue page 46 ...*

Precision pyrometers employing multi-point laser technology

Professional infrared thermometers TP7 and TP10 for demanding measuring applications



Unique appearance – high optical resolution

With their distinctive German industrial design these exclusive professional pyrometers are not only in peak form when it comes to appearances, the technical performance data is equally impressive in every respect:

TP7 and TP10 combine precise measuring technol-
ogy, flexible application possibilities and a multitude
of sophisticated measuring functions in easy-to-
handle premium-quality high-end pyrometers with
an excellent value-for-money ratio.

Due to their wide temperature measuring range,
high optical resolution and many ad-
vanced functions, these measuring
devices are not only first choice
for a safe diagnosis and mainte-
nance of heating, air-conditioning
and ventilation installations or ex-
tensive maintenance tasks in the
industrial and craft sector.

Both infrared thermometers are
also ideally suited for complex and
demanding measuring tasks dur-
ing maintenance, inspection, anal-
ysis or documentation. For this
purpose the TP10 comes
equipped with an integrated data
logger function to capture and
save up to 30 measuring points.

**Combined infrared
and contact tempera-
ture measurement**

The miniature contact pin of the TP10 enhances
the possible applications by additional contact tem-
perature measurements with the type K
contact sensor included in the scope
of delivery or all third-party tempera-
ture probes of the same construction
type.

For battery-saving applica-
tion, the TP10 can also be
operated directly at the
USB port of your com-
puter. With the USB func-
tion it further provides the
possibility for software-supported
recording of measurement series in
case of long-term temperature profile
measurements of mechanical or cli-
matic processes. For non-stop mea-
suring the TP10 can further be fixed to
the supplied mini tripod.



**Exclusively
at Trotec!**



| Technical data | | Pyrometer TP7 | Pyrometer TP10 |
|----------------------------|----------|--|--|
| Article number | | 3.510.003.012 | 3.510.003.046 |
| Optical resolution (D:S) | | 40:1 | 75:1 |
| Smallest measuring spot | | 25.4 mm | 18 mm |
| Measuring range | | -50 °C to +1,000 °C (-58 °F to 1,832 °F) | -50 °C to +1,850 °C (-58 °F to 2,912 °F) |
| Resolution | | 0.1 °C | 0.1 °C ≤ 1,000 °C, 1 °C > 1,000 °C |
| Accuracy* | | ± 2.5 °C at -50 to 20 °C; ± 1 % at 21 to 300 °C; ± 1.5 % at 301 to 1,000 °C | ± 3 °C at -50 to 20 °C; ± 1 % ± 1 °C at 20 to 500 °C; ± 1.5 % at 500 to 1,000 °C; ± 2 % at 1,001 to 1,850 °C |
| Repeatability | | ± 1.3 °C at -50 to 20 °C; ± 0.8 % or ± 0.5 °C at 21 to 1,000 °C | ± 1.5 °C at -50 to 20 °C; ± 0.5 % or ± 0.5 °C at 20 to 1,000 °C; ± 1 % at 1,000 to 1,850 °C |
| Response time | | < 150 ms | < 150 ms |
| Spectral sensitivity | | 8 ~14 µm | 8 ~14 µm |
| Target display | | laser class 2 (II), 630 ~ 670 nm, < 1 mW | laser class 2 (II), 630 ~ 670 nm, < 1 mW |
| Contact temperature sensor | | - | measuring range -50 °C to +300 °C, accuracy ± 1.5 % or ± 3 °C, repeatability ± 1.5 % |
| Ambient conditions | | 0 °C to 50 °C, 10 % to 90 % RH | 0 °C to 50 °C, 10 % to 90 % RH |
| Power supply | | 9 V IEC 6LR61 | 9 V IEC 6LR61 (and externally via USB) |
| Dimensions (L x W x H mm) | | 160 x 49 x 122 mm | 168 x 56 x 225 mm |
| Weight | | 224 g | 300 g |
| Scope of delivery | Standard | pyrometer TP7, storage bag, 9 V battery, operating manual | pyrometer TP10, carrying case, type K contact sensor, mini tripod, USB connecting cable, 9 V battery, software, operating manual |
| | optional | - | Universal tripod (Article number 6.300.000.200) |

■ Standard equipment; * at ambient temperatures of 23 to 25 °C

| Comparison of functions and equipment features | TP7 | TP10 |
|---|-----|------|
| Selectable multi-point laser | ■ | ■ |
| Switching function °C / °F | ■ | ■ |
| Display resolution 0.1 °C (0.1 °F) | ■ | ■ |
| Non-stop measuring function | ■ | ■ |
| Minimum value display | - | ■ |
| Maximum value display | ■ | ■ |
| Differential and average value display | - | ■ |
| Display value hold function | ■ | ■ |
| User-defines alarm thresholds | ■ | ■ |
| High/low alarms indicated by a change of display colour and an additional alarm sound | ■ | ■ |
| Degree of emission adjustable from 0.1 to 1.0 | ■ | ■ |
| Backlit LCD display | ■ | ■ |
| Automatic switch-off function | ■ | ■ |
| Time display | - | ■ |
| Date function | - | ■ |
| Adjustment function for touch tone, alarm sound and display contrast | - | ■ |
| Bar graph indicator | - | ■ |
| Open targeting sights | - | ■ |
| Storable measured values | - | 30 |
| Additional contact temperature measurement (with external type K sensor) | - | ■ |
| Software-supported recording of measurement series | - | ■ |
| USB connection | - | ■ |
| ¼ inch tripod connection | - | ■ |

High optical resolution and precise measuring spot display thanks to multi-point laser

The optical resolution (D:S) defines the ratio of measuring distance and measuring spot diameter. With increasing distance to the measuring object the measuring spot also increases. The device calculates an average temperature from all the temperatures in the measuring spot. The larger the measuring spot, the less precise is the measured result. And vice versa: the higher the optical resolution of the pyrometer, the smaller the measuring spot and the more precise the measurement.

Precise measurements straight to the multi-point

Standard devices are often merely equipped with a single laser which shows nothing more than the centre of the measuring spot. But the actual dimensions of the measuring surface are not immediately apparent for the user. Double laser devices on the other hand visualize at least the diameter, though not the overall measuring surface.



The multi-point laser aiming aid of TP7 and TP10 combines these two technologies allowing you to capture the measuring object both easily and precisely. Whilst one targeting laser in the centre indicates the measuring point, further eight lasers show you the boundary points encircling the measuring surface – thus permitting precise measurements in a minimum of time.

Convenient alarm indication via change of display colour

The on-demand display illumination is usually green; with activated alarm function the display will be flashing in blue whenever falling below the user-defined limit value (Lo). Exceeding the set threshold (Hi), the display flashes red. In both cases an acoustic alarm will be emitted in addition.



Trotec

Temperature

Multi-function

Climate

Moisture

Software

Emission

Air flow

Optical inspection

Leak detection

Tracing and detection

Planning and survey