

BP21 INFRARED THERMOMETER

Non-contact temperature measurement – quick and precise



The BP21 impresses with first-rate performance data in this device class, e.g. with a wide temperature range, optical resolution of 12:1, degree of emission adjustable according to the specific material and with an innovative dual laser automatically visualizing the measuring spot size.

A few practical benefits:

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- ***Development, design, production: 100 % Trotec***
 - ***Non-contact surface temperature measurement from -35 °C to +800 °C***
 - ***Degree of emission freely adjustable from 0.1 to 1.0***
 - ***Measuring optic 12:1***
 - ***Excellent value for money***
 - ***Measuring spot diameter display due to dual laser technology***
 - ***Maximum or minimum value and hold function***
 - ***Backlit display***
 - ***Alarm function***
 - ***Automatic switch-off***
 - ***Practice-optimized German industrial design – protected design patent***
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TECHNICAL DATA

General information

Article number	3.510.003.031
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Optics

Optical resolution (D:S)	12:1
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Smallest measuring spot	Ø 12.5 mm (Distance 150 mm)
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Infrared temperature sensor [°C]

Min. measuring range [°C]	-35
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Max. measuring range [°C]	800
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Max. accuracy [°C]	± 2 °C or ± 2 % Of measured value
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Accuracy < -4°C

Accuracy -4°C to 65 °C

Accuracy > 65 °C

Accuracy < 20 °C

Accuracy = 20 °C

Accuracy -50 °C to 20 °C (-58 °F to 68 °F)
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Accuracy 21 °C to 300 °C

Accuracy 301 °C to 1,000 °C

Accuracy 21 °C to 400 °C

Accuracy 401 °C to 800 °C

Accuracy 800 °C to 1,600 °C

Repeatability -50 °C to 20 °C

Repeatability 21 °C to 1,000 °C

Repeatability 21 °C to 1,200 °C

Repeatability 1,201 °C to 1,600 °C

Accuracy 20 °C to 500 °C (68 °F to 932 °F)
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Accuracy 500 °C to 1,000 °C (932 °F to 1,832 °F)
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Accuracy 1,000 °C to 1,850 °C (1832 °F to 3,362 °F)

TECHNICAL DATA

Repeatability 20 °C to 1,000 °C (68 °F to 1,832 °F)

Repeatability 1,000 °C to 1,850 °C (1832 °F to 3,362 °F)

Infrared temperature sensor [°F]

Min. measuring range [°F] -31

Max. measuring range [°F] 1,472

Accuracy min. [%] 1.5

Accuracy ± min. [°F] 4.5

Accuracy Max. [%] 1

Accuracy ± Max. [°F] 1.8

Integrated temperature probe [°C]

Min. measuring range [°C]

Max. measuring range [°C]

Accuracy ± min. [°C]

Accuracy ± Max. [°C]

Accuracy ± 0 °C to 200 °C (32 °F to 392 °F)
[°C]

Accuracy ± =0 °C [°C]

Integrated temperature probe [°F]

Min. measuring range [°F]

Max. measuring range [°F]

Accuracy ± < 23 °F to 150 °F [°F]

Accuracy ± > 150 °F [°F]

Dew point temperature [°C]

Min. measuring range [°C]

Max. measuring range [°C]

Accuracy

Humidity

Min. measuring range [%]

TECHNICAL DATA

Max. measuring range [%]

Accuracy [%]

Ambient conditions

Operation - min. temperature [°C]

0

Operation - max. temperature [°C]

50

Operation - min. relative humidity [% RH]

10

Operation approx. - max. relative humidity
(non-condensing) [%]

90

Storage - min. temperature [°C]

-10

Storage - max. temperature [°C]

60

Storage - max. relative humidity
(non-condensing) [%]

80

Display

LCD

Monochrome

Interfaces

USB

Plug connection for type K temperature
sensor

Memory organisation

Internal flash memory

Device control

Push buttons

Membrane keyboard

Type of protection

IP54

IP65

Temperature sensor

Response time

0.3 s

Spectral sensitivity

8 - 14 µm

TECHNICAL DATA

Laser (target display)

Class	2 (II)
Wavelength [nm]	630 ~ 670
Power [mW]	1

Power supply

Internal (battery)	1 x 9 V battery
Internal (battery)	
External (USB)	

Housing design

Plastics

Dimensions

Length (packaging excluded) [mm]	150
Width (packaging excluded) [mm]	45
Height (packaging excluded) [mm]	108

Weight

(packaging excluded) [kg]	0.177
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