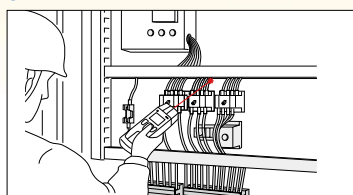Portable non-contact thermometer
Long range with narrow FOV type

Measurement range

–30 to 600°C (–22 to 1112°F)
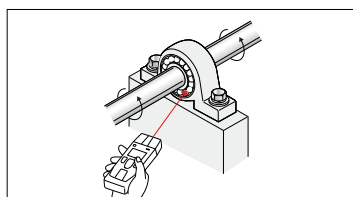
THERMO-HUNTER®

PT-S80, PT-U80

(with USB output)

Checking for abnormal heat generation on switchboards

Checking for abnormal heat generation in bearings

レーザ光
ビームをのぞきこまないこと
最大出力 1.0mW 波長 630~670nm
クラス2レーザ製品

レーザ光が直接あるいは鏡面体に反射して
目に入らないようにご注意ください。

CE

| EL backlight with illuminance sensor | Large 3-row display LCD | Coaxial laser marker | Upper/lower limit alarm | USB output (U80 only) | Data recording |

Features

Striving for easier readability

The product's LCD is equipped with an EL backlight to make measurement results more easily readable. In addition, the large-size LCD screen includes a three-area display for a brighter, bigger presentation of information. Designed to be energy-efficient, the EL backlight includes an illuminance sensor that automatically turns the display off whenever it is not needed.

POINT① **Built-in EL backlight**

POINT② **34 x 34 mm large LCD screen**

Display (full-sized)

In the pursuit of convenience

In order to make the most effective use of measured data, the PT-U80 is equipped with a function that allows data recorded onto the unit to be transmitted to a PC via USB. The captured data can then be applied to a report form prepared in advance for easy report creation. Configuration of various settings and performing various operations on the PT-U80 can also be done from the PC. Access the Optex FA homepage to download the necessary PC software.

USB connection
Data transmission
USB connection
USB connector (bottom)

POINT① **Easy connection to PC via USB**
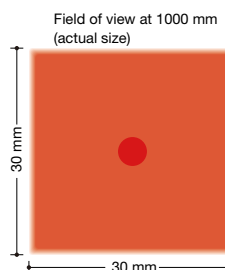
POINT② **Comes equipped with simple report form**

Dedication to being easy to understand

Knowing an exact measurement point is difficult if the location of the laser pointer is not in line with the actual measurement point. The PT-80, however, is equipped with a coaxial laser marker (PSC-certified high-brightness laser) that provides a constant red dot at the center of the measurement area.

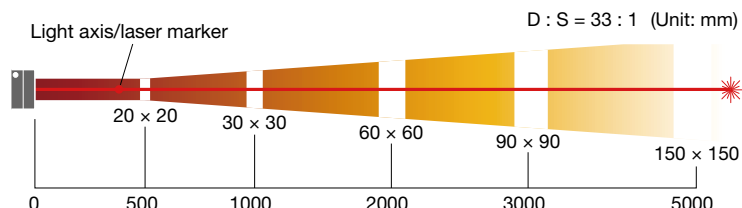Field of view at 1000 mm
(actual size)
30 mm
30 mm

POINT

Built-in coaxial laser marker for easy determination of measurement location

Dedication to enabling simple measurement

At a distance of 1 m, the PT-80 measurement area is 30 × 30 mm. At a distance of 5 m, the product's long-focus design provides a measurement area of 150 × 150 mm. This enables safe, reliable measurement even in situations where approaching the target can be dangerous.

POINT **Long-focus design for measurement from a distance**

D : S = 33 : 1 (Unit: mm)

Light axis/laser marker

20 × 20   30 × 30   60 × 60   90 × 90   150 × 150

0   500   1000   2000   3000   5000

Specifications

Model	PT-S80	PT-U80 (with USB output)
Measurement range	−30 to 600°C (−22 to 1112°F)	
Field of view	30 × 30 mm / 1000 mm (D : S = 33 : 1)	
Optics	Si lens	
Sensing element	Thermopile	
Measurement spectral response	8 to 14 μm	
Response time	0.5 sec./90% response	
Accuracy (ε≈0.95)	−30.0 to 0°C (−22 to 32°F): ±3°C (5.4°F), 0.1 to 200°C (32.2 to 392°F): ±2°C (3.6°F), 201 to 600°C (393.8 to 1112°F): ±1%	
Repeatability	±1°C (1.8°F) of reading	
Display resolution	−30.0 to 199.9°C (−22 to 391.8°F): 0.1°C (32.2°F), 200 to 600°C (392 to 1112°F): 1°C (33.8°F)	
Sighting function	PSC-certified coaxial laser marker (Class 2)	
HOLD time	15 seconds	
Continuous measurement switching	–	ON/OFF switchable
USB output	–	Yes
Data recording	Single-entry memory	35-entry memory (150 entries max.)
Backlight	EL backlight with illuminance sensor	
Upper/lower temperature limit alarm	Alarm LED and buzzer, ON/OFF switchable	
Emissivity (ε) adjustment	0.95/0.85/0.70 (switchable)	Variable emissivity (0.3 to 1.20, 0.01 per step)
Display function	NOR/MAX/MIN	
Power supply	AA alkaline battery ×2	
Battery life	Approx. 15 continuous hours (at max. load)	
Ambient temperature	0 to 50°C (32 to 122°F)	
Ambient humidity	35 to 85% RH (no condensation)	
Storage temperature/ humidity	−10 to 60°C (14 to 140°F)/35 to 85% RH	
Material	ABS/TEEE	
Dimensions	H × W × D = 182 mm × 56 mm × 38 mm	
Weight	Approx. 250 g (including batteries)	
Standard included accessories	AA alkaline batteries ×2 (for operation checking), Instruction manual, Dedicated carrying case, USB cable (PT-U80 only)	

*1: The dedicated PT-U80 software is available for free download from the Optex FA homepage.

*2: Peripheral devices connected to the PC may prevent correct operation.

*Note that specifications are subject to change without prior notice for product improvement purposes.
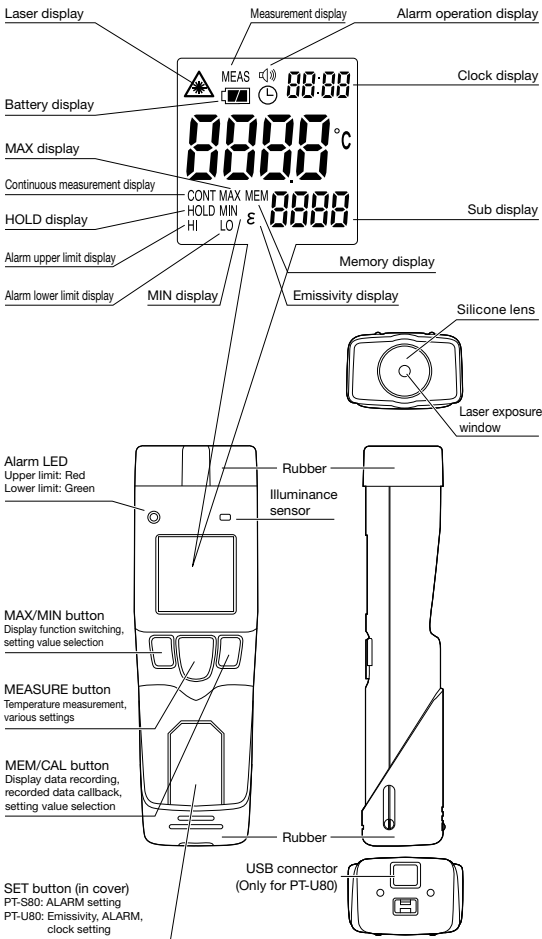
Options/Accessories

Black tape for glossy objects

HB-250

When attached to the surface of an object with unknown emissivity or a glossy object, this tape provides an emissivity of 0.95, enabling accurate non-contact temperature measurement. When using the tape, set the emissivity to ε = 0.95. The tape is built with material resistant to heat up to 250°C (482°F).
Total area: 60 mm × 2000 mm

Names of components

Laser display
Battery display
MAX display
Continuous measurement display
HOLD display
Alarm upper limit display
Alarm lower limit display
MIN display
Measurement display
Alarm operation display
Clock display
Sub display
Memory display
Emissivity display
Silicone lens
Laser exposure window

Alarm LED
Upper limit: Red
Lower limit: Green

Illuminance sensor

Rubber

MAX/MIN button
Display function switching, setting value selection

MEASURE button
Temperature measurement, various settings

MEM/CAL button
Display data recording, recorded data callback, setting value selection

Rubber

SET button (in cover)
PT-S80: ALARM setting
PT-U80: Emissivity, ALARM, clock setting

USB connector
(Only for PT-U80)

Correct use
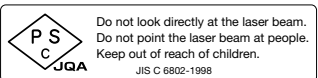
■ Situations where measurement may be difficult
- When measuring a mirror-like surface such as shiny metal.
  *(Measure after attaching optional accessory HB-250 or after creating a matte finish using paint or the like.)
- When measuring through glass.

■ Correct use
- Be sure to read the instruction manual thoroughly before using the product.
- This instrument is not a thermometer for taking body temperatures. It is not intended for use in medical practices.
- This product is not waterproof. Do not use this product in water or in a location where it may be exposed to water.
- Sudden changes in ambient temperature can cause measurement errors. Please ensure the product is not subject to sudden temperature changes during use.
- Avoid using the product near objects that generate strong electromagnetic waves.

■ Laser beam
- This product uses a Class 2 laser that conforms to JIS C 6802. Use the product according to the affixed warning labels.
- This product is a portable device that features a laser marker certified by JQA (Japan Quality Assurance Organization).

P S C / JQA — Do not look directly at the laser beam. Do not point the laser beam at people. Keep out of reach of children. JIS C 6802-1998

レーザ光
ビームをのぞきこまないこと
レーザーダイオード
出力 MAX 1.0mW
波長 630～670nm
クラス2レーザ製品

■ Exporting
- Laser warning labels: Product specifications and warning labels may differ slightly depending on the laws and compliance standards of the export destination country. Contact us for details.