

Portable non-contact thermometer
Long range with narrow FOV type

Measurement range

-30 ... 600°C (-22 ... 1,112°F)

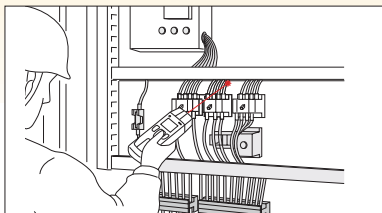
THERMO-HUNTER®

PT-S80(E), PT-U80(E)

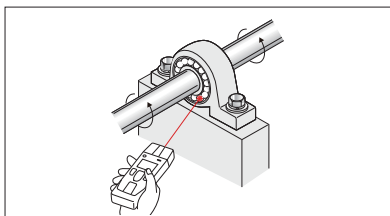
(with USB output)



Checking for abnormal heat generation on switchboards



Checking for abnormal heat generation in bearings



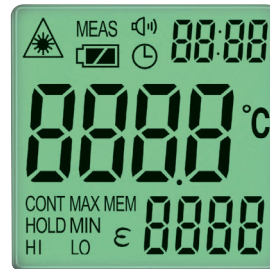
- EL backlight with illuminance sensor
- Large 3-row display LCD
- Coaxial laser pointer
- Upper/lower limit alarm
- USB output (U80 only)
- Data recording

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.

- POINT ① Built-in EL backlight**
- POINT ② 34 x 34 mm large LCD screen**



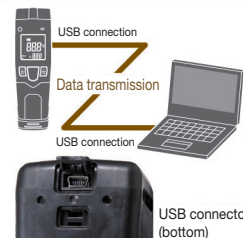
Display (full-sized)

In the pursuit of convenience

In order to make the most effective use of measured data, the PT-U80(E) 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(E) can also be done from the PC.

Access the OPTEX FA homepage to download the necessary PC software.

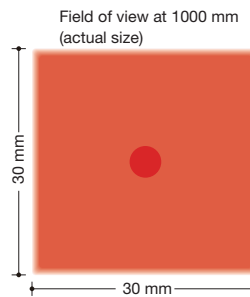
- POINT ① Easy connection to PC via USB**
- POINT ② Comes equipped with simple report form**



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(E), however, is equipped with a coaxial laser pointer (PSC-certified high-brightness laser) that provides a constant red dot at the center of the measurement area.

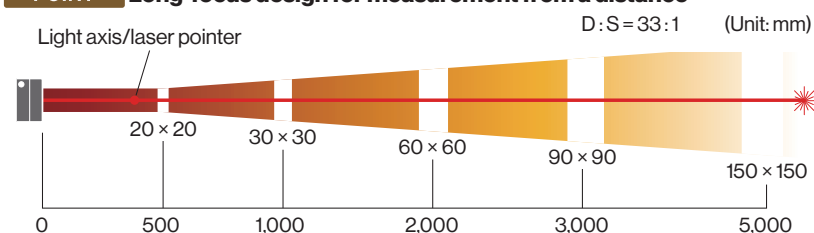
- POINT Built-in coaxial laser pointer for easy determination of measurement location**



Dedication to enabling simple measurement

At a distance of 1 m, the PT-80(E) 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**



Specifications

Model	PT-S80(E)	PT-U80(E) (with USB output)
Measurement range	-30 ... 600°C (-22 ... 1,112°F)	
Field of view	30 × 30 mm / 1,000 mm (D : S = 33 : 1)	
Optics	Si lens	
Sensing element	Thermopile	
Measurement spectral response	8 ... 14 μm	
Response time	0.5 sec./90% response	
Accuracy¹ (ε=0.95)	-30.0 ... 0°C (-22 ... 32°F): ±3°C (5.4°F), 0.1 ... 200°C (32.2 ... 392°F): ±2°C (3.6°F), 201 ... 600°C (393.8 ... 1,112°F): ±1% of reading value	
Repeatability	±1°C (1.8°F)	
Display resolution	-30.0 ... 199.9°C (-22 ... 391.8°F): 0.1°C (0.1°F), 200 ... 600°C (392 ... 1,112°F): 1°C (1°F)	
Sighting function	Coaxial laser pointer Class 2 (IEC / JIS / FDA 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 ... 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 ... 50°C (32 ... 122°F)	
Ambient humidity	35 ... 85% RH (no condensation)	
Storage temperature/humidity	-10 ... 60°C (14 ... 140°F)/35 ... 85% RH	
Material	ABS/TEEE	
Dimensions	H × W × D = 182 mm × 56 mm × 38 mm	
Applicable regulations	EMC	EMC Directive (2014 / 30 / EU)
	Environment	RoHS Directive (2011 / 65 / EU), China RoHS (MIIT Order No. 32)
	Safety	FDA Regulations (21 CFR 1040.10 and 1040.11) (except for deviations pursuant to Laser Notice No. 56)
Applicable standards	EN IEC 61326-1, IEC 60825-1	
Weight	Approx. 250 g (including batteries)	
Standard included accessories	Instruction manual, Dedicated carrying case, USB cable (PT-U80(E) only)	

¹The measurement accuracy in the specification is limited to the calibration conditions of our factory.

²This product is classified as Class 2 by IEC 60825-1:2014 according to Laser Notice No. 56, FDA Guidance Document.

- The dedicated PT-U80(E) software is available for free download from the OPTEX FA homepage.
- 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

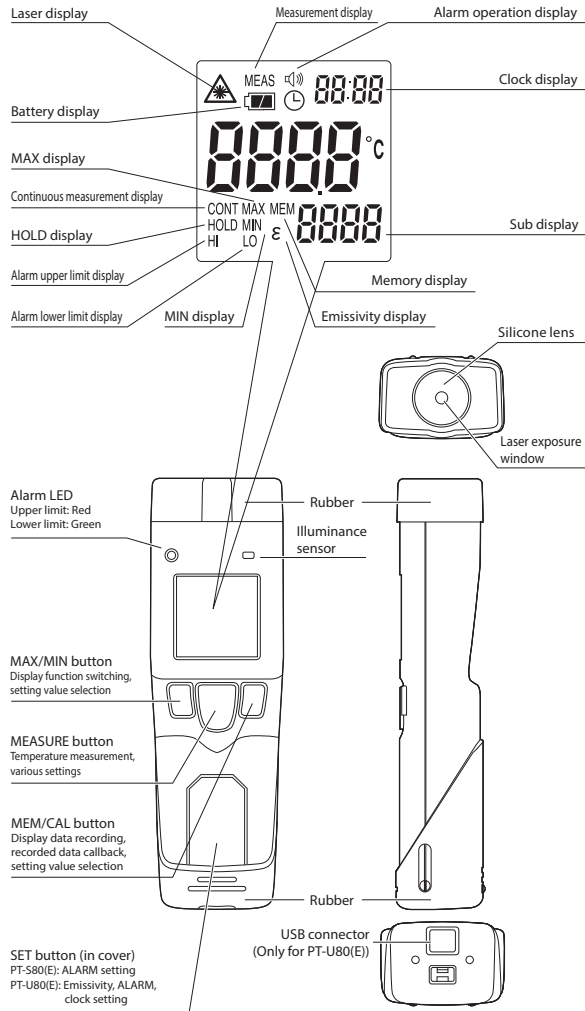
Black tape for glossy objects

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 × 2,000 mm

Names of components



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.

Precautions for laser use

This product emits a Class 2 visible laser beam that is compliant with JIS C6802/IEC 60825-1/FDA laser safety standards. Labels for applicable standards are affixed and attached to the sides of the sensor.

Type of laser used in this product

Type	Red semiconductor laser
Wavelength	655 nm
Output	1 mW

Export to the United States

If this product is to be exported to the United States, it is necessary to follow laser standards as stipulated by the US Food and Drug Administration (FDA). This product has already been submitted to the CDRH (Center for Devices and Radiological Health).



Caution label

Selection guide

Stationary-type

CS

SA-80

BA

BA-TC

BS

BS-02

BF

Portable-type

PT-7LD(E)

PT-5LD(E)

PT-S80(E)
PT-U80(E)

PT-2LD

PT-3S

Q & A

Support

Company