



Single Touch

Quick!

Non-Contact Temperature Measurement
Easy-to-Carry Pocket-Sized Body

Compact



CE

OPTEX Product Information

Portable
Non-Contact
Thermometer

THERMO-HUNTER

PT-2 series

(1°C display resolution)

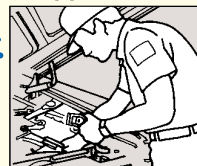
PT-02 series

(0.1°C display resolution)

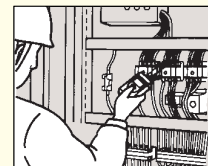
Made
in
Japan

- Measuring temperature range
PT-2 series : -40 to 510° C
PT-02 series : -40 to 200° C
- Quick response : 0.8sec (PT-2 series)
- Display resolution : 0.1° C (PT-02 series)
- Field of View : □ 100/1000mm
- Large, easy-to-view LCD display
- Laser beam guide & backlight
(PT-2LD & PT-02LD)

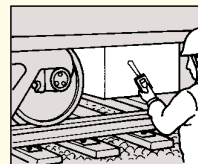
Applications



Motor/ Machine



Electric Wiring / Transformer



Transport/Automotive



Freezer / Refrigerator



CAUTION
DO NOT STARE INTO BEAM
LASER DIODE POWER MAX 1.0mW
WAVE LENGTH 670nm
CLASS II LASER PRODUCT

CAUTION
LASER RADIATION
DO NOT STARE INTO BEAM
670nm/1.0mW MAX
CLASS II LASER PRODUCT
THIS PRODUCT COMPLIES WITH
21 CFR 1040.10 AND 1040.11

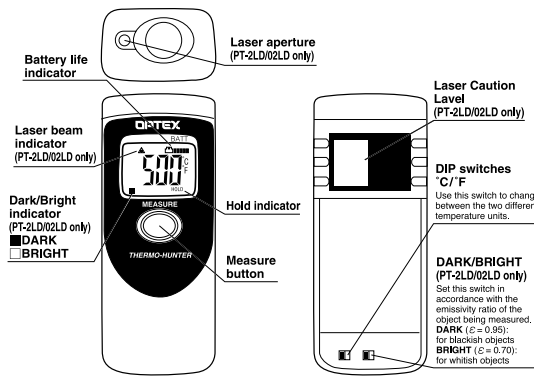
PT-2/02series Portable Non-Contact Thermometer

Specifications

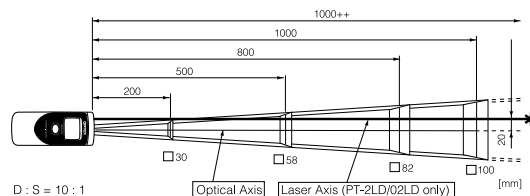
| Model | PT-2L | PT-2LD | PT-02L | PT-02LD |
|-------------------------------------|--|-----------------------|--|-----------------------|
| Measuring range | -40 to 510°C (-40 to 950°F) | | -40 to 200°C (-40 to 392°F) | |
| Display range | -51 to 538°C (-60 to 1000°F) | | -50 to 230°C (-58 to 446°F) | |
| Field of view | □100/1000mm (D: S=10:1) square spot | | | |
| Optics | mirror/silicon filter | | | |
| Sensing element/Wavelength | Thermopile/8 to 14μm | | | |
| Response time | 0.8sec/90% | | 1.5sec/90% | |
| Accuracy (ε: 0.95, at 25°C ±3°C) | Less than 0°C: ±3°C; 0°C to 200°C: ±2°C; Above 200°C: ±1% of reading value (Less than 32°F: ±6°F; 32 to 400°F: ±4°F; Above 400°C: ±1% of reading value) | | Less than 0°C: ±3°C; 0°C to 200°C: ±2°C (Less than 32°F: ±6°F; 32 to 400°F: ±4°F) | |
| Repeatability | ±1°C (2°F) of reading value | | ±0.5°C (1°F) of reading value | |
| Display resolution | 1°C/°F | | 0.1°C/°F (Above 200°C/°F: 1°C/°F) | |
| Sighting method | N/A | Blinking laser marker | N/A | Blinking laser marker |
| Emissivity ratio (ε) adjustment | 0.95 | 0.95/0.7 (Switchable) | 0.95 | 0.95/0.7 (Switchable) |
| Back-light function | N/A | Available | N/A | Available |
| Temperature unit | °C/°F (Switchable) | | | |
| Power supply | AA (Alkaline battery) x 2pcs. | | | |
| Battery life (Alkaline) | Approx. 60 hours | Approx. 30 hours | Approx. 60 hours | Approx. 30 hours |
| Ambient temperature | 0 to 50°C (32 to 120°F) | | | |
| Ambient humidity | 35 to 85%RH (Without dew condensation) | | | |
| Storage temperature | -10 to 60°C (14 to 140°F) | | | |
| Dimensions | H x W x D = 140 x 56 x 37mm | | | |
| Weight (Incl. battery) | 175g | 180g | 175g | 180g |

Standard accessories: "AA" (Alkaline Battery) x 2pcs. Optional accessories: Black tape, Protective pouch
 ※ Design and specifications may change for product improvement without prior notice.

Display and Functions



Field of View



D : S = 10 : 1
 ※ The laser axis (PT-2LD/02LD only) is located 20mm left from the optical axis.
 ※ The optical resolution values stated in "Field of View" are at 90% energy. The size of target object should be sufficiently larger than the field of view (spot size) shown in the above illustration.

Safe Usage

- WARNING** Do not look into the laser beam, nor point it directly at eyes. Even the reflection is harmful. This laser may cause eye injury or damage to your health. (PT-2LD/02LD only)
- CAUTION** This product is not a clinical thermometer; therefore, cannot be used for medical purposes.

Environmental Warnings

- ⚠ **AVOID GETTING THE THERMOMETER WET. DO NOT USE IN WATER.**
This thermometer is not waterproof.
- ⚠ **KEEP THE THERMOMETER AWAY FROM STRONG ELECTROMAGNETIC SOURCES OR LARGE ELECTROMAGNETIC FIELDS.**
Usage in such environments may cause irreparable damage or incorrect measurement.
- ⚠ **KEEP THE THERMOMETER AWAY FROM DIRECT SUNLIGHT, DUST, HIGH TEMPERATURES AND HIGH HUMIDITY DURING USE AND STORAGE.**
This may cause irreparable damage or incorrect measurement.
- ⚠ **DO NOT EXPOSE THE THERMOMETER TO SUDDEN TEMPERATURE CHANGES.**
Sudden temperature change of the environment may cause incorrect measurement. In such cases, wait until the thermometer reaches steady temperature before taking measurement.

Usage Warnings

- ⚠ **AVOID MEASURING SHINY OBJECTS.**
Shiny objects, of which emissivity value is low, reflect surrounding temperatures. As this thermometer's sensitivity to emissivity is fixed at 0.95/0.70, the displayed temperature could differ from the actual temperature of the object, which has the different emissivity value. When you wish to measure shiny objects like metals, put a piece of optional black tape or apply black paint/marker on the surface and measure the masked area using emissivity setting of 0.95.
- ⚠ **DO NOT LET THE THERMOMETER TOUCH THE OBJECT THAT IS BEING MEASURED.**
This is a non-contact thermometer. Touching or getting too close to the objects with high temperatures may cause irreparable damage or incorrect measurement.

Products mentioned in this catalogue are equipped with Class 2 laser.
 In case of re-export to foreign countries, please confirm the relevant regulation for laser products in the destination country.

[Option] Black Tape HB-250



• Dimensions: 60 x 2000mm
 ※ Withstand heat up to 250°C

[Hint for accurate measurement]

The black tape (HB-250) is designed for more accurate measurement, especially if the target object has a shiny surface. Apply HB-250 on the surface of the target and measure the area covered by HB-250 with emissivity setting at 0.95.

[Option] PH-3



Protective Pouch for PT-2&3 with clear window & belt clip.
 Easy to carry with detachable belt clip.



OPTEX CO., LTD.
 4-7-5 Nionohama Otsu 520-0801 JAPAN
 TEL +81-77-524-6049 FAX +81-77-524-1491
 URL <http://www.optex.co.jp/meas>

No. 74037-03-0909-0304