

HIOKI

TEMPERATURE HITESTER

3415-01 · 3416-01

Environmental Measuring Instruments



Non-contact temperature measurement

Quick-response

1.5 seconds (95%)

Wide-range

-50 °C to 500 °C

Easy

Single operation



Narrow field measurement (φ72mm at 1m)

- 3415-01: Two-beam laser maker type

Discontinued

Fine surface measurement (φ2.5mm at 3cm)

- 3416-01: LED spot maker type



ISO 9001
JMI-0216



ISO 14001
JQA-E-90091



www.hioki.com

HIOKI company overview, new products, environmental considerations and other information are available on our website.

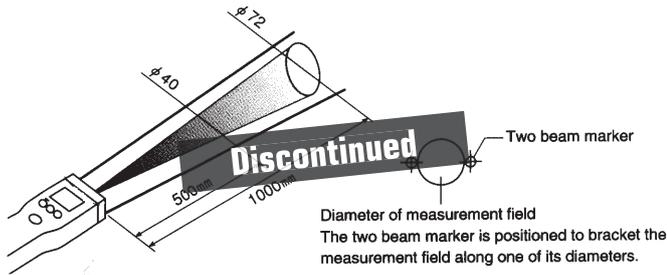
The photograph is an
actual-size 3416-01

Three types available: for narrow field and fine surface measurement.

■ Narrow field measurement with the 3415-01 (Two-beam laser marker type)

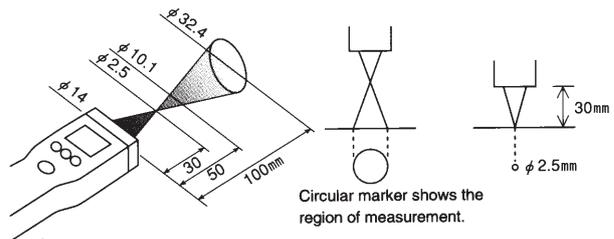
Discontinued

The field of measurement is 40 mm wide at a measurement distance of 50 cm, and 72 mm wide at a 1 m distance. The outer periphery of the field of measurement (two ends of a diameter) is marked by a pair of laser beams.



■ Fine surface measurement with the 3416-01 (LED spot maker type)

The region of measurement is marked with a red light spot (the LED spot marker). The diameter of this region varies according to the measurement distance, and is at its minimum of 2.5 mm at a distance of 3 cm, while at 5 cm temperature is measured over a region of diameter 10.1 mm.



■ The applications are endless !

- Checking storage conditions in supermarkets for frozen foodstuffs and cooled fresh foodstuffs.
- Checking for abnormal heating up of electronic devices such as ICs, motors, etc..
- Checking the temperature of batteries, engines, timing belts, tires, etc..



Theory of measurement

Every body emits infrared radiation energy in accordance with its temperature. Therefore, by measuring the amount of this radiated infrared energy, it is possible to infer the temperature of the body which is emitting it. Because infrared rays pass easily through air which is relatively transparent to them, while they are easily absorbed by solid matter, therefore accurate temperature measurement is possible, irrespective of the air temperature or the measurement distance.

■ Specification (accuracy at 23 °C ± 3 °C, 55 % RH, with emissivity ε=1.0)

- Measurement range: -50 °C to 500 °C ● Display resolution: 1 °C ● Measurement accuracy: ±1%rdg. (200 to 500 °C), ±2 °C (0 to 199 °C), ±10%rdg. ±2 °C (-50 to -1 °C) ● Response time: 1.5 seconds (95% response) ● Repeatability: ±0.5 °C ● Measurement field diameter: 3415-01; ±φ72 mm at 1000 mm, 3416-01; φ2.5 mm at 30 mm ● Detector element: thermopile ● Measurement wavelength: 8 to 16 μm ● Sampling rate: 2 samples/second ● Targeting: 3415-01; two-beam laser marker class 2, 3416-01; LED spot marker ● Emissivity correction: ε=0.10 to 1.00 (0.01 steps) ● Auto power save function: 15 seconds (can be canceled) ● Ancillary functions: alarm, data hold function, max./min. value display function, °C/°F selection ● EMC: EN61326 ● Power source: R03 manganese battery × 4 ● Continuous operating time: approx. 40 hours ● Dimensions and mass: Approx. 40 W × 170 H × 36 Dmm; 140 g (with battery) ● Supplied accessories: carrying case

TEMPERATURE HIESTER 3415-01

Discontinued

TEMPERATURE HIESTER 3416-01

Option

BLACK BODY TAPE (50mm × 10m, 1roll) Withstands 180 °C

Note: Used for accurate measurement of the temperature of objects which have low thermal emissivity(ε) such as polished metal, and for calibrating thermal emissivity.

Note: Company names and Product names appearing in this catalog are trademarks or registered trademarks of various companies.

HIOKI

HIOKI E. E. CORPORATION

Headquarters :

81 Koizumi, Ueda, Nagano, 386-1192, Japan
TEL +81-268-28-0562 / FAX +81-268-28-0568
http://www.hioki.co.jp / E-mail: os-com@hioki.co.jp

HIOKI USA CORPORATION :

6 Corporate Drive, Cranbury, NJ 08512 USA
TEL +1-609-409-9109 / FAX +1-609-409-9108
http://www.hiokiusa.com / E-mail: hioki@hiokiusa.com

HIOKI (Shanghai) Sales & Trading Co., Ltd. :

1608-1610, Shanghai Times Square Office, 93 Huai Hai Zhong Road
Shanghai, P.R.China POSTCODE: 200021
TEL +86-21-63910090/63910092 FAX +86-21-63910360
http://www.hioki.cn / E-mail: info@hioki.com.cn

Beijing Office :

TEL +86-10-84418761 / 84418762

Guangzhou Office :

TEL +86-20-38392673 / 38392676

HIOKI INDIA PRIVATE LIMITED :

Khandela House, 24 Gulmohar Colony Indore 452 018 (M.P.), India
TEL +91-731-4223901, 4223902 FAX +91-731-4223903
http://www.hioki.in / E-mail: info@hioki.in

HIOKI SINGAPORE PTE. LTD. :

33 Ubi Avenue 3, #03-02 Vertex, Singapore 408868
TEL +65-6634-7677 FAX +65-6634-7477
E-mail: info@hioki.com.sg

DISTRIBUTED BY