



VOLTCRAFT®

VOLTCRAFT® - TOP PERFORMANCE IN EVERY WAY

“For more than 25 years, our product range has been dynamically adapting to the constant changes in the industry. We commit to offering first-class quality to our customers while delivering an excellent cost-performance ratio. This philosophy remains the cornerstone of Voltcraft’s success.”

IR-900

IR METER BUILT-IN TYPE

Nº 10 09 88

CE

VERSION 10/09

This device from the Voltcraft infrared thermometer series has a compact panel meter, a handy IR thermometer and includes an exceptional feature set. The panel meter can be easily installed in switchboards and the thermometer can be freely mounted as desired. The contactless temperature measurement allows hassle-free measurement of all possible devices. When designing this product, special emphasis was placed on quick response times, a wide temperature range and high accuracy. The integrated relay connection is controlled by user-defined temperature limits. It can be used to trigger alarm systems or activate other equipment.

HIGHLIGHTS

Relay connection for monitoring and automatic switch-off of external devices //

Laser for precise measurement spot marking //

Measurement range of -50 to +900 °C //

Adjustable emissions value //

Temperature measurement in °C/°F //

Hi/Lo alarm //

Backlit LCD //

50:1 optics //



GENERAL SPECIFICATIONS

OPERATING VOLTAGE: 230 V/AC, 50 HZ or 12/24 V/DC **EMISSION GRADE:** 0.1 to 1.0 adjustable **RESPONSE TIME:** 300 ms
TEMPERATURE RESOLUTION: 0.1 °C **OPTICS (DISTANCE/SURFACE RATIO):** 50:1 **WEIGHT:** 288 g (Panel meter) / 185 g (IR thermometer) **DIMENSIONS (W x H x D):** 72 x 77 x 98 mm (Panel meter) / 43 x 49 x 130 mm (IR thermometer)

TECHNICAL DATA

| | |
|---------------------------------|--|
| Max. current consumption: | 25 mA (230 V/AC) 150 mA (12/24 V/DC) |
| Laser wavelength: | 630 - 670 nm |
| Laser emission rating: | < 1 mW |
| Laser class: | II |
| Cable length: | 3 m |
| Relay - rated load (resistive): | 30 V/DC, 5 A or 250 V/AC (50/60 Hz), 5 A |
| Operating temperature: | 0 °C to 50 °C (32 °F to 122 °F) |
| Storage temperature: | -20 °C to 60 °C (-4 °F to 140 °F) |
| Relative air humidity: | 10 % to 90 % (Operation) < 80 % (Storage) |

Measurement tolerances

Accuracy of measurement in \pm (% of the reading (= rdg)). The accuracy is valid for one (1) year at a temperature of $+23\text{ °C} \pm 5\text{ °C}$, and at a relative humidity of less than 80 %, non-condensing.

| Measuring range | Accuracy |
|--------------------------------------|---|
| -50 °C to -20 °C (-58 °F to -4 °F) | $\pm 5\text{ °C} (\pm 9\text{ °F})$ |
| -20 °C to 500 °C (-4 °F to 932 °F) | $\pm 2.5\% \text{ rdg} \pm 2.5\text{ °C} (\pm 4.5\text{ °F})$ |
| 500 °C to 900 °C (932 °F to 1632 °F) | $\pm 3.0\% \text{ rdg} \pm 3.0\text{ °C} (\pm 5.4\text{ °F})$ |

Surface emissivity

| Measured surface | Emissivity |
|-------------------|--------------|
| Asphalt | 0.90 to 0.98 |
| Brick | 0.93 to 0.96 |
| Cement | 0.96 |
| Ceramic | 0.90 to 0.94 |
| Charcoal (powder) | 0.96 |
| Chromium oxides | 0.81 |
| Cloth (black) | 0.98 |
| Concrete | 0.94 |
| Copper oxides | 0.78 |
| Glass | 0.90 to 0.95 |
| Human skin | 0.98 |
| Ice | 0.96 to 0.98 |
| Iron oxide | 0.78 to 0.82 |

| Measured surface | Emissivity |
|------------------|--------------|
| Lacquer | 0.80 to 0.95 |
| Lacquer (matte) | 0.97 |
| Lather | 0.75 to 0.80 |
| Marble | 0.94 |
| Mortar | 0.89 to 0.91 |
| Paper | 0.70 to 0.94 |
| Plaster | 0.80 to 0.90 |
| Plastic | 0.85 to 0.95 |
| Rubber (black) | 0.94 |
| Sand | 0.90 |
| Soil | 0.92 to 0.96 |
| Textiles | 0.90 |
| Water | 0.92 to 0.96 |

➔ The emissivity values shown in the above table are approximate. Several parameters, e.g. geometry, surface quality, may affect the emissivity of an object.

PACKAGE CONTENT

Panel meter // Infrared thermometer with laser pointer // Connection cable // Thermometer support //
 2 x dowels and screws // 2 x mounting rails // 3 x terminals // Operating instructions

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