

Datasheet

Black Oak Engineering

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Bee – Laboratory Thermometer with pH and BLE options



Part number BE-BETH



Description. The Bee is a handheld thermometer with an illuminated digital display. It is designed for use in the laboratory and in industry. User settings are easily programmed. It has a high capacity, rechargeable battery. It has nonvolatile memory for data logging. The electronics uses extreme low power design, so that many hours of reliable use are available. The case may easily be mounted to a vertical surface. The standard temperature probe is thermistor based in a laboratory grade stainless steel jacket.

Available options:

- Precise standard pH probe interface.
- BLE Bluetooth communications.

Standard Probe

- Standard is thermistor based. Other technologies available as options.
- Range: -20 to 120 °C (-4 to 248 °F).
- Accuracy: $\pm 1\%$, calibrated to NIST standard at factory.
- Materials: Gold-plated connector, Teflon® (PTFE) jacketed coaxial cable, silicone strain relief, 304 stainless steel probe.
- Dimensions: cable 45.7 cm (18"), probe 10 cm (4").

Specifications

- Battery capacity: 200 mA-hr.
- Typical use time (highly dependent upon setup): 78 hours.
- Memory: 128 kByte EEPROM (retains memory even if power lost).
- Certifications: CE, IEC for laboratory instrumentation, REACH, RoHS3.

Standard Includes

- Temperature probe.
- Instruction sheet.

Options

- pH probe, standard BCN type. Add (BE-BETH)+pH
- BLE. Add (BE-BETH)+BLE

BOE is continuously improving. We also strive to keep one step ahead of procurement shortfalls. We will deliver to you the latest hardware version possible. In some cases specifications will change.

Environmental

- Temperature range. -4 to +158 °F, -20 to +70 °C.
- Humidity / water exposure. The PCBA does not include a protective enclosure. Nor is it conformally coated. Condensing humidity and water exposure must be completely avoided.
- Enclosure rating: NEMA 3 / IP54.

Approvals & Compliance

- RoHS. REACH.
- California Prop 65. There are no listed toxic materials in the PCBA.
- CE. The system is designed and tested to meet or exceed CE requirements for laboratory, non-safety-critical electronic devices.

Warranty Policy. Any instrument ordered from BOE may be returned for full refund, less shipping costs, within 30 days of delivery, provided that the instrument has not, in the opinion of BOE been damaged or

misused. An RMA number is required in all cases. See our *Standard Terms & Conditions - Instruments* for more details.

BOE reserves the right to make changes to these specifications as it deems necessary. All technical information contained herein is as accurate as possible; however BOE shall not be held responsible for any errors or for product use, nor for any infringements upon the rights of others which may result from its use. BOE products are not to be used in life support or safety critical applications.

All BOE products are designed and manufactured in the USA.

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