



## FEATURES

- Power over Ethernet (PoE+) & Bluetooth® Compatible
- Configurable to Celsius or Fahrenheit
- 30°C to 45°C (86°F to 113°F) Settable Temperature Range
- Ambient and Humidity Sensors Included
- 3" Square Emitting Aperture
- Patented\* Radiant Floor Technology
- Temperature Accuracy of  $\pm 0.15^{\circ}\text{C}$  ( $\pm 0.3^{\circ}\text{F}$ )
- Average Emissivity > 0.950 MWIR thru LWIR
- $\pm 0.05^{\circ}\text{C}$  ( $\pm 0.1^{\circ}\text{F}$ ) Temperature Stability
- Source Plate Sensor Calibrated Using a NIST Traceable Reference

## OVERVIEW

Santa Barbara Infrared's 2nd generation Nightingale Body Temperature Reference (BTR) sources provide the same stable, uniform, low cost and simple to operate thermal sources for human body temperature detection. In addition, the 2nd generation systems comes standard with power over ethernet (PoE+) and Bluetooth®, removing the need for a separate power source or a USB connection. Nightingale sources are primarily designed to be incorporated into thermal imaging body temperature screening systems. The Nightingale Body Temperature References work by providing a viewable thermal reference area for Infrared camera systems. The Nightingale BTR source features "set and forget" configuration. An operator simply configures the reference source through either the USB, ethernet or Bluetooth® interface options and stores the set point into non-volatile memory. After configuration, the blackbody automatically controls to the set point upon each power up. A status LED visually indicates when the reference is stable and ready for use as a calibration source. The Nightingale's performance has been optimized for a range of absolute temperature set points and ambient conditions that are required by most body temperature screening systems.

## APERTURE SIZE & TEMPERATURE RANGE

Model	Emitting Surface Size	Temp. Range 30°C to 45°C (86°F to 113°F)
BTR-03	3" x 3"	X

## Solutions

### for Every EO Test Requirement

30 S. Calle Cesar Chavez, Suite D • Santa Barbara, Ca. 93103  
 ph (805) 965-3669 • fax (805) 963-3858 • <http://www.sbir.com>

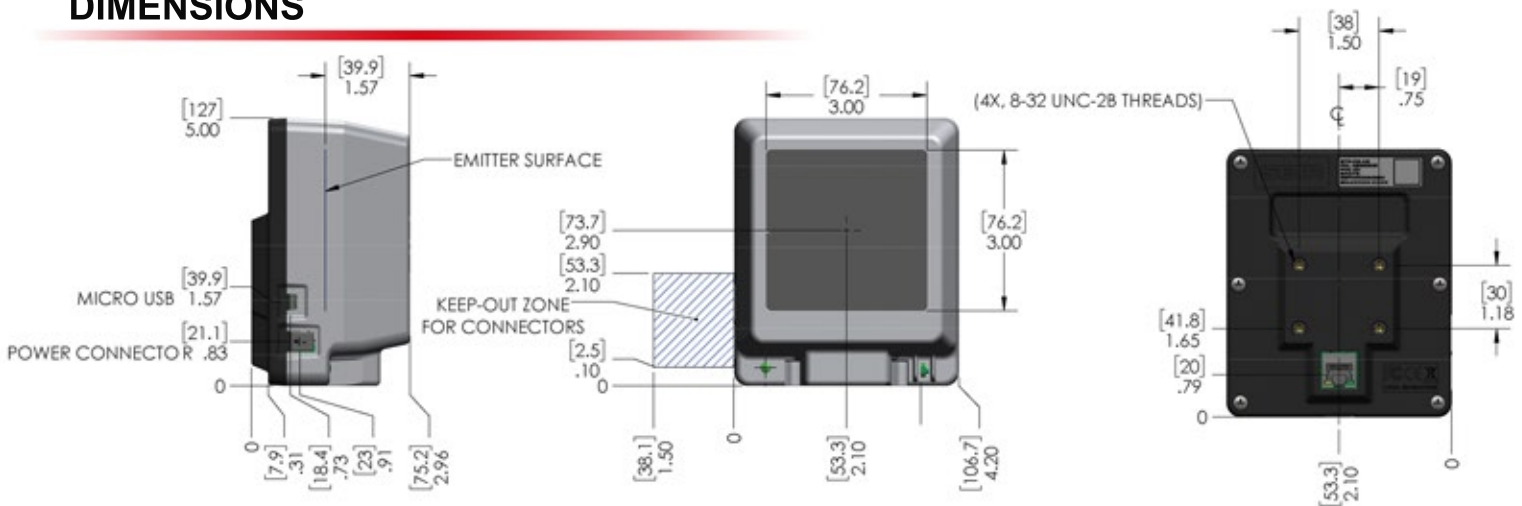
## SYSTEM SPECIFICATIONS

Settable Temperature Range <sup>1,5</sup> (must be set above Ambient).....	30°C to 45°C (86°F to 113°F)
Emissivity (Average).....	> 0.95 from 3µm to 14µm
Emitting Aperture Size.....	3 inch square
Uniformity <sup>2</sup> .....	± 0.15°C (± 0.3°F) over central 1.5" x 1.5" region of interest
Absolute Accuracy <sup>2</sup> .....	± 0.15°C (± 0.3°F)
Stability <sup>3</sup> .....	± 0.05°C (± 0.1°F)
Setpoint Resolution.....	0.1°C (0.2°F)
Startup Time.....	< 5 minutes
Ambient Temperature Sensor.....	0°C to 50°C +/- 2°C
Relative Humidity Sensor.....	0-100%, +/- 5% R.H.

## GENERAL SPECIFICATIONS

Operating Temperature.....	22°C ±3°C (71.6°F ± 10.8°F)
Storage Temperature.....	-20°C to 70°C (-4°F to 158°F)
Relative Humidity.....	5% to 95%, non-condensing
Power Requirements.....	18V, 1A DC max. AC adaptor included or powered via PoE+
Approximate Weight.....	< 1 lb. reference source only 1.5 lbs. including peripherals

## DIMENSIONS<sup>4</sup>



## ORDER INFORMATION

Please contact the SBIR sales team at (805) 965-3669 to ensure proper part number and to receive a quotation.

- Notes:**
1. Fahrenheit values listed are rounded to nearest 0.10°F value based on Celsius specification
  2. Verified in lab against radiometric reference at mid-range set point
  3. Stability is based on temperature sensor output
  4. Dimensions are for reference only. All dimensions are in inches. Parenthetical values are in millimeters
  5. Temperature should be at least 5°C above ambient for optimal performance
- \* Specifications are subject to change without prior notice. Patent pending on radiant floor technology



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