

# BBS35...150 FP Series

## Fixed Point Temperature Blackbody Calibration Source



The BBS...FP Blackbody series provides a quick and accurate way to check the calibration of non-contact infrared temperature sensors.

This rugged and portable unit is designed to provide fast calibration checks anywhere they are needed, from the factory to the workshop or laboratory.

Eighteen **Blackbody calibration source** models are available; offering **fixed** target temperatures from 35°C to 150°C, all providing outstanding stability with less than  $\pm 0.2^\circ\text{C}$  deviation.

The Blackbody emitter heats up and stabilizes in 5 to 15 minutes to the desired temperature, depending on the model. An LED indicator on the Blackbody is used to show when it has reached its' **final target** temperature: green when the BBS...FP is warming up, orange when the BBS...FP is ready for operation and red when the BBS...FP is overheating (visual warning alarm).

The BBS...FP can be used with any infrared temperature sensor that is able to measure between 35°C and 150°C and can focus on a target area less than 2" (50.8 mm).

### SPECIFICATIONS

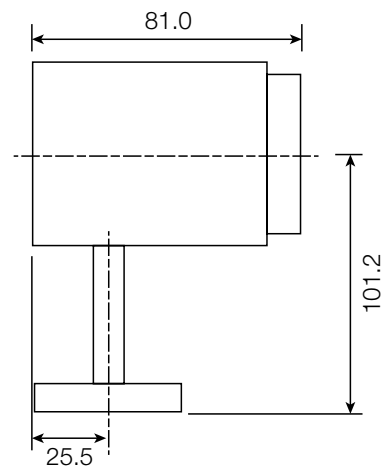
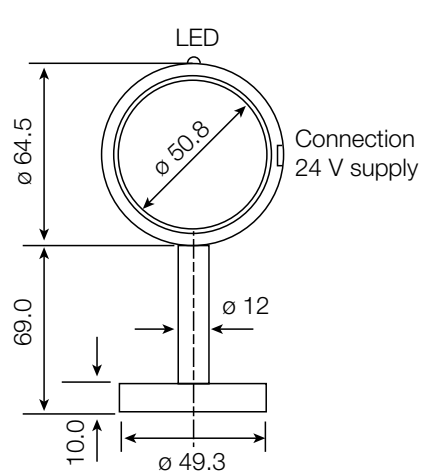
#### CALIBRATION SOURCE

Target Temperature:	from 35 °C to 150 °C depending on model
Emissivity (ε):	0.98 ± 0.004 (for wavelength of 2 to 5.4 μm and 8 to 14 μm)
Aperture diameter:	2" (50.8 mm)
Warm-up time:	max. 5 minutes (BBS35) to 15 minutes (BBS150)
Temperature uncertainty:	0.4 °C for $T_{\text{amb}} = 10$ to 30 °C (BBS35 - 120) 0.6 °C for $T_{\text{amb}} = 0$ to 10 °C (BBS35 - 120) 0.5 °C for $T_{\text{amb}} = 10$ to 40 °C (BBS130 - 150) 0.7 °C for $T_{\text{amb}} = 0$ to 10 °C (BBS130 - 150)
Repeatability:	$\pm 0.2^\circ\text{C}$
Stability:	$\pm 0.1^\circ\text{C}$
Temperature uniformity:	0.2 °C (central area $\varnothing$ 45 mm)
Operating temperature: $T_{\text{amb}}$ :	0 to 30 °C, temporary (2 minutes) up to 70 °C
Storage temperature:	0 to 70 °C
Relative humidity:	10 to 85 %, non condensing
Status LED:	green: warm-up orange: ready for operation red: above calibration temperature - overheating warning
Power supply:	24 V DC, max. 1 A
Protection class:	IP50 (EN 60529)
Weight:	2 lbs (0.9 kg)
Dimensions:	2.53" $\varnothing$ x 3.2" D x 5.2" H // (64.5 x 81.0 x 133.5 mm)
CE marking:	according to EU regulations

#### POWER SUPPLY

Model	Description
Power supply:	100 to 240 V AC, 50 Hz - included with unit
Output:	24 V DC, 1.3 A
Protection class:	EN 60950
Weight:	approx. 0.7 lbs (0.3 kg)
CE marking:	according to EU directives regarding electromagnetic immunity

## DIMENSIONS



All dimensions in mm

## MODELS

Model	Description	Target Temperature
BBS35-FP	Calibration source BBS35	35 °C
BBS45-FP	Calibration source BBS45	45 °C
BBS50-FP	Calibration source BBS50	50 °C
BBS55-FP	Calibration source BBS55	55 °C
BBS60-FP	Calibration source BBS60	60 °C
BBS65-FP	Calibration source BBS65	65 °C
BBS70-FP	Calibration source BBS70	70 °C
BBS75-FP	Calibration source BBS75	75 °C
BBS80-FP	Calibration source BBS80	80 °C
BBS85-FP	Calibration source BBS85	85 °C
BBS90-FP	Calibration source BBS90	90 °C
BBS95-FP	Calibration source BBS95	95 °C
BBS100-FP	Calibration source BBS100	100 °C
BBS110-FP	Calibration source BBS110	110 °C
BBS120-FP	Calibration source BBS120	120 °C
BBS130-FP	Calibration source BBS130	130 °C
BBS140-FP	Calibration source BBS140	140 °C
BBS150-FP	Calibration source BBS150	150 °C



A BBS-FP unit on an optional adjustable ball and socket mount

## ACCESSORIES

Model	Description
23300-20000	Power supply 100 to 240 V AC or 24 V DC
23300-20020	Power plug US
23300-20010	Power plug EU
23300-20030	Power plug UK
23300-20040	Power plug AUS
23300-21010	Adjustable ball and socket mount

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Specifications subject to change without notice