

→ Characterization of IRFPA



# TwiN1000

**DOUBLE EXTENDED AREA**

**BLACKBODY**

## INTRODUCTION

The TwiN1000 double extended area blackbodies are absolute infrared reference sources. They can be used as low temperature infrared reference sources. They consist of a head with two independently regulated emissive surfaces. Their temperatures are controlled via a single electronic unit with PID adjusted regulator.

The emissive surfaces temperatures are controlled with high precision and stability at temperatures below or above ambient temperature. The two emissive surfaces temperatures are measured in real time thanks to high precision calibrated Pt sensors. The TwiN1000 blackbody is the ideal blackbody for applications which require calibration temperatures to jump from one to another within a second.



→ TwiN1000

## CONFIGURATION

- Two 42mm x 42mm emissive areas
- Independent control of the two emissive surfaces
- Real time display of emissive areas and set point temperatures
- Fast response time and high stability
- High thermal uniformity and emissivity
- Compact emissive head
- Absolute temperature range from 0°C to +150°C
- Control through touchscreen panel
- Radiometric calibration certificate
- Remote control via Ethernet link

## ADVANTAGES

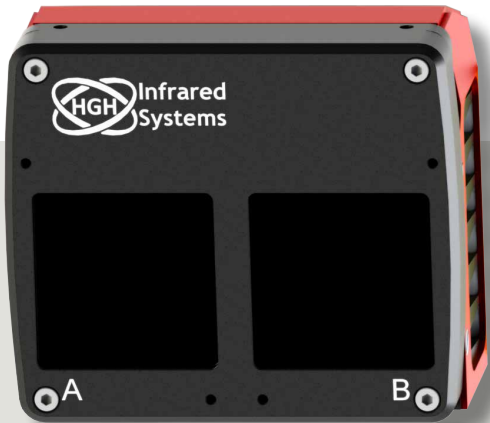
- Compact head
- One electronic unit for two emissive areas
- Easily integrated in production testing line
- Two independent emissive areas for the price of one blackbody



## NEW FEATURES

- LabVIEW drivers for all communication interfaces
- Remote control through e-Blackbody smartphone application

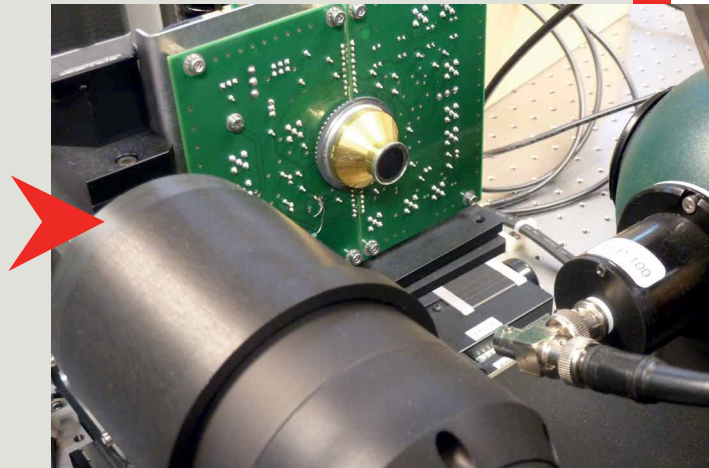




# TwIN1000

DOUBLE EXTENDED AREA

BLACKBODY



→ IR sensor test equipment

## TECHNICAL DATA

### TwIN1000

Size of the two emissive areas	42 mm x 42 mm
Emissivity / Apparent emissivity after calibration	0.98 ± 0.02 / 1.00
Temperature range	0°C to +150°C
Thermal uniformity at ambient ± 5°C / at 35°C	0.01°C / 0.1°C
Stability	0.002°C
Stabilization time from 20°C to 45°C	less than 1 minute
Temperature measurement accuracy	0.03°C
Temperature sensor type	Calibrated Pt sensor
Regulation type	real time PID adjustment
Operating temperature	-20°C to +70°C
Head dimensions W x H x D	75 mm x 105 mm x 100 mm
Head weight	< 1 Kg
Electronic unit size	3U x 19"
Electronic unit weight	11 kg
Display resolution	0.001°C (actual temperatures and set points display)
Remote control	Ethernet interface
Power supply	115/230 VAC, 1ph., 50/60 Hz
Maximum power consumption	600 W

Above information is subject to change without notice

