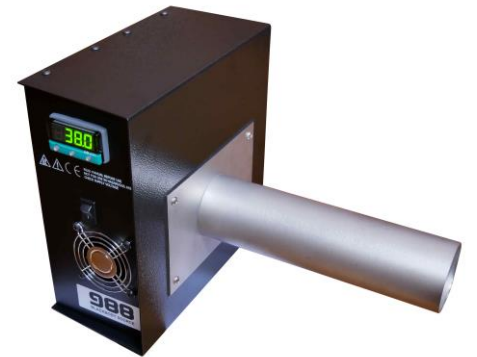


Isotech Blackbody Calibrators



ISOTECH 40 years
1980-2020

LSOTECH

A world leader in temperature metrology
Celebrating 40 years in business 1980 - 2020
Holds Queens Award for Enterprise in the
Innovation Category



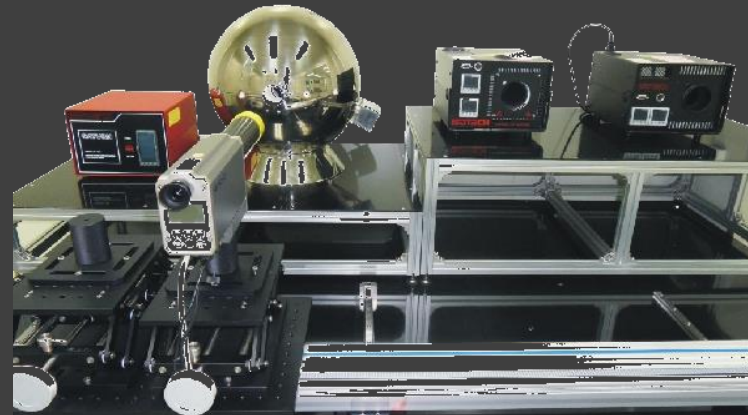
IR Calibration...

Isotech have a wide range of blackbody calibrators to check and calibrate infrared thermometers and thermal imagers

Temperature ranges from -80°C to 1300°C

There are also blackbody fixed points

Clients include Industrial Users, Commercial Laboratories and National Measurement Institutes



This introductory guide looks at Isotech's laboratory sources

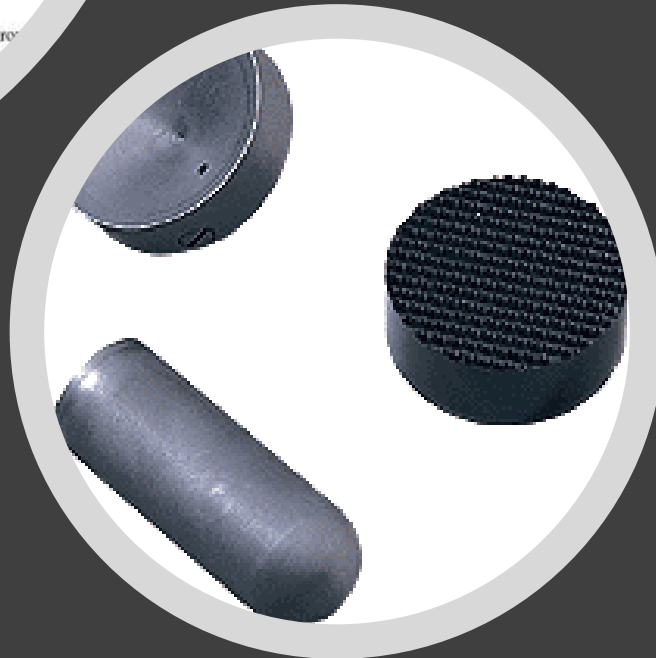
- Our award winning multifunction [Isocal-6 Range of heat sources and Dry Blocks](#) have simple accessories that can be used for testing low cost IR thermometers
- www.isotech.co.uk/industrial-calibration/



CALIBRATION CERTIFICATE

No: 659/270/46/09

Object of calibration:	Blackbody simulator
Type:	Gemini 976
Serial number:	271975-1
Calibration mark:	659/270/46/09
Manufacturer:	ISOTECH LTD.
Customer:	Isothermal Technology Limited, Pine Grove Southport, England
Order No.:	01/09/SMU/2009 from 30. 09. 2009
date of calibration:	Laboratory for optical radiation 05-11. 10. 2009 4



Our calibration sources and blackbody fixed points were developed with world leaders in infrared thermometry



1: Low Cost Wide Range Portable Devices



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1980-2020



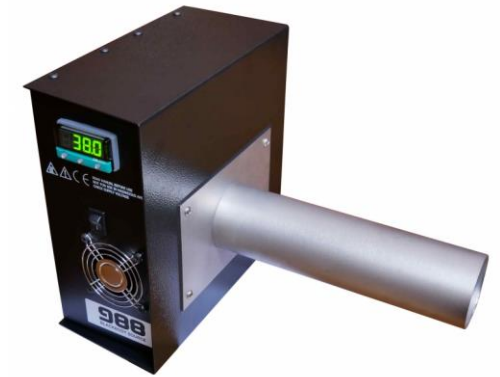


	Temperature Range
Blackbody Quick Cal	30°C to 350°C
Greybody Source	50°C to 350°C

Isotech Blackbody Sources

- Portable general-purpose calibrators

2: Blackbody Source Model 988

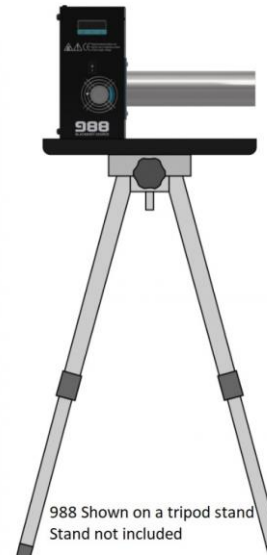


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Blackbody Source Model 988

- First introduced to assist in relation to the SARS outbreak during the early 2000s the Model 988 is now helping in relation to coronavirus. It can be used to increase the accuracy of non-contact fever detection systems that are helping in the fight against COVID-19. Applications also include checking non-contact clinical thermometers.



988 Shown on a tripod stand
Stand not included



Now it is being used in relation to
coronavirus
[More Details – Introducing the 988](#)



3: High Emissivity Laboratory Sources

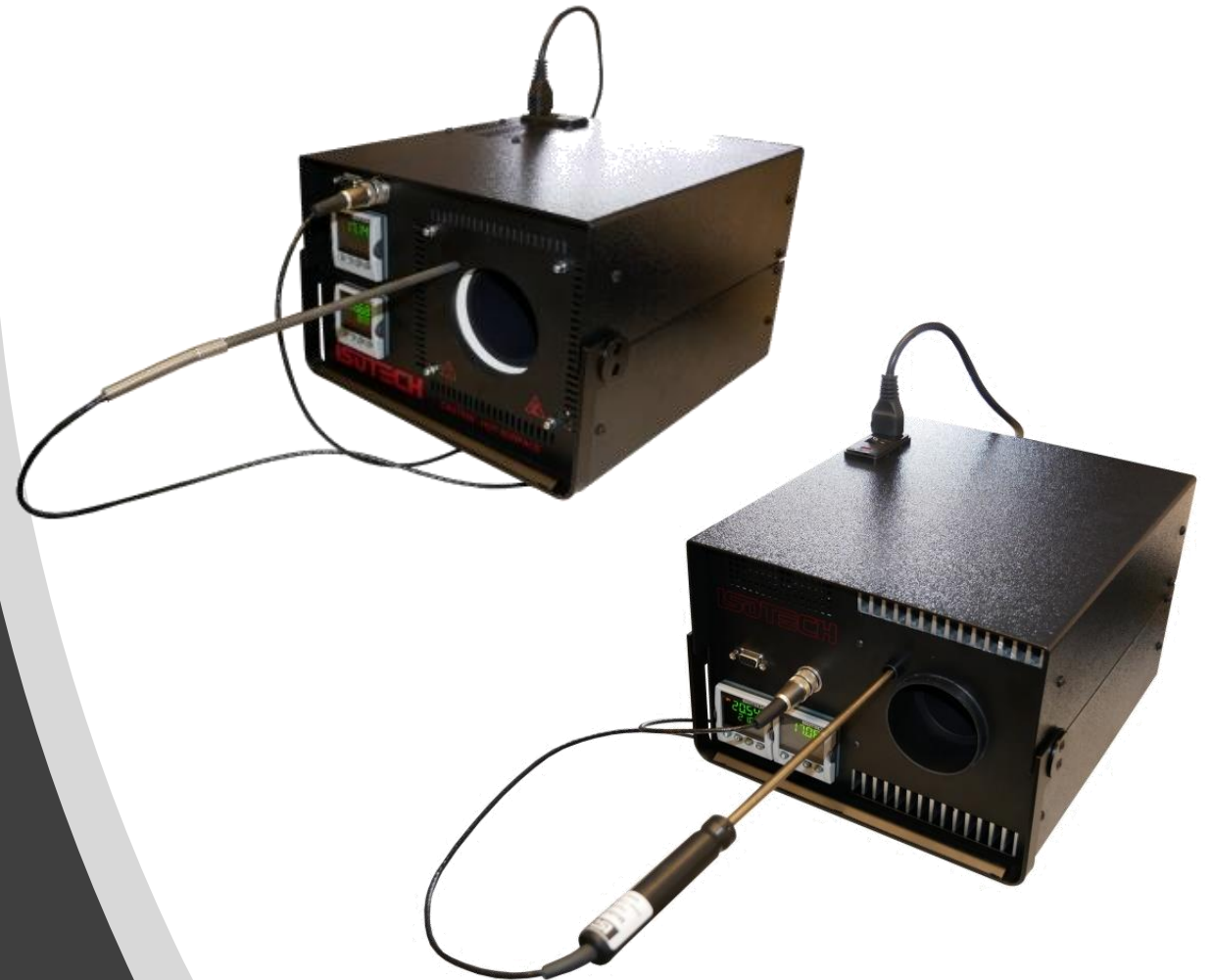


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Isotech Primary Radiation Sources -10°C to 550°C

- Hyperion R and Gemini R
- High emissivity
- Laboratory Performance
- Portable





	TEMPERATURE RANGE	APERTURE SIZE
Hyperion R	-10°C to 80°C	50mm
Gemini R	30°C to 550°C	65mm

Isotech Blackbody Sources

- High Emissivity Laboratory Sources
 - These popular products are used as standards around the world
 - They include a contact thermometer and display for traceability or they can be provided with a calibration certificate for the radiance temperature

Hyperion R Model 982
Primary Radiation
Source -10°C to 80°C

- One application is the calibration of non-contact medical thermometers. With the sudden step increase in the demand to check and calibrate medical thermometers we have supplied many units for both portable and laboratory testing relating to the coronavirus outbreak

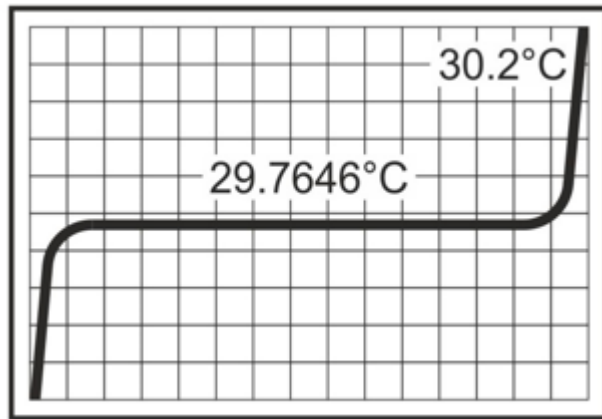


Hyperion R Model 982

Primary Radiation Source

-10°C to 80°C

- For Research Applications we can provide a Gallium Blackbody Fixed Point Cell
- The melt plateau gives a precise, constant fixed temperature of 29.7646 °C



Gemini R Model 982

Primary Radiation Source

30°C to 550°C

- The Gemini R 550 Portable Blackbody Calibration Source allows for calibration of non-contact infrared thermometers over the temperature range 30°C to 550°C. It is suitable for use as a primary radiation source for infrared thermometers.
- Laboratory performance and low uncertainty calibrations are ensured by the combination by high emissivity and excellent temperature uniformity.



Gemini R Model 982

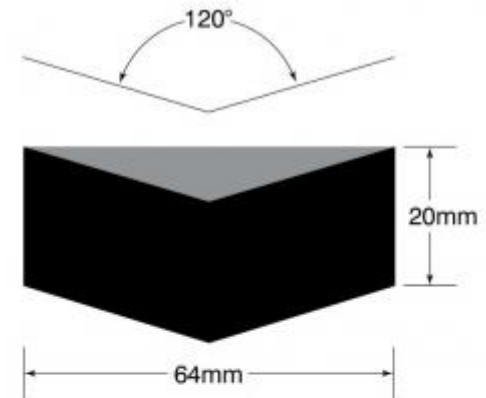
Primary Radiation Source

30°C to 550°C

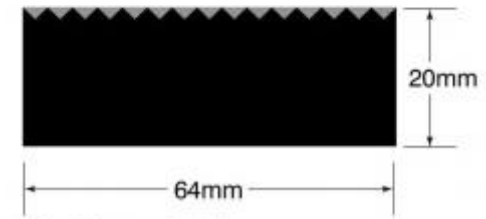
- For Research Applications we can provide a range of fixed-point cells

Hockey Puck Cells

Gallium	431-03-00	29.7646°C	Gemini R
Indium	976-05-00A	156.60°C	Gemini R
Tin	976-05-00B	231.93°C	Gemini R
Zinc	976-05-00C	419.53°C	Gemini R



Hockey Puck Cells

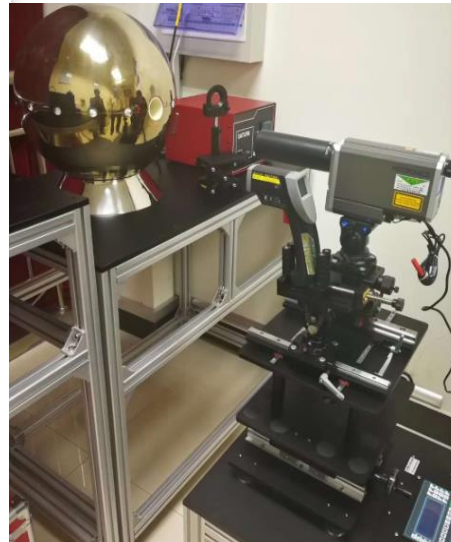
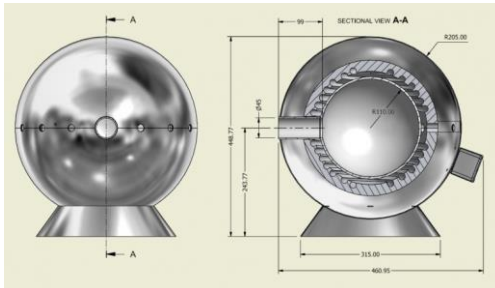
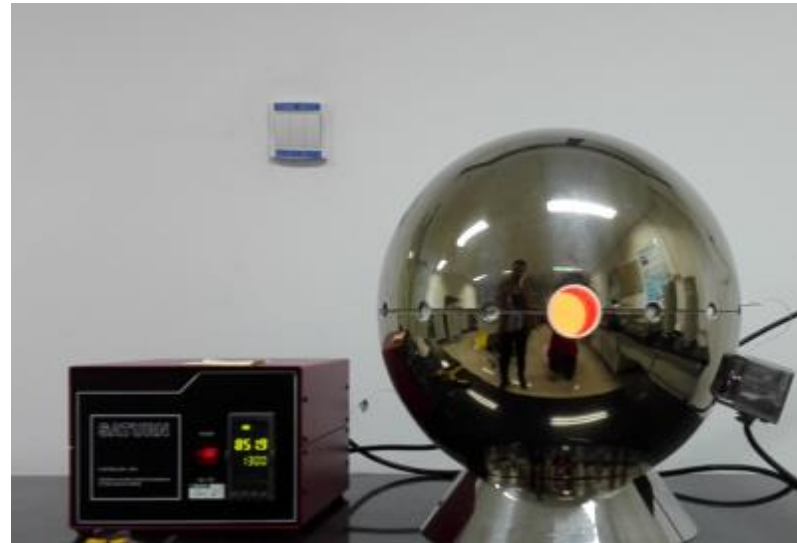


Gallium Cell



Isotech Blackbody Sources for Higher Temperatures

- High Emissivity Laboratory Sources



Temperature Range

Aperture Size

Pegasus R

150°C to 1200°C

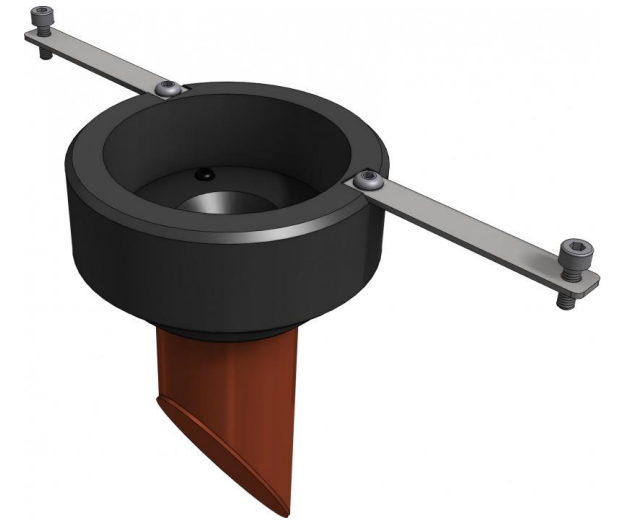
30mm

Cyclops
878

100°C to 1300°C

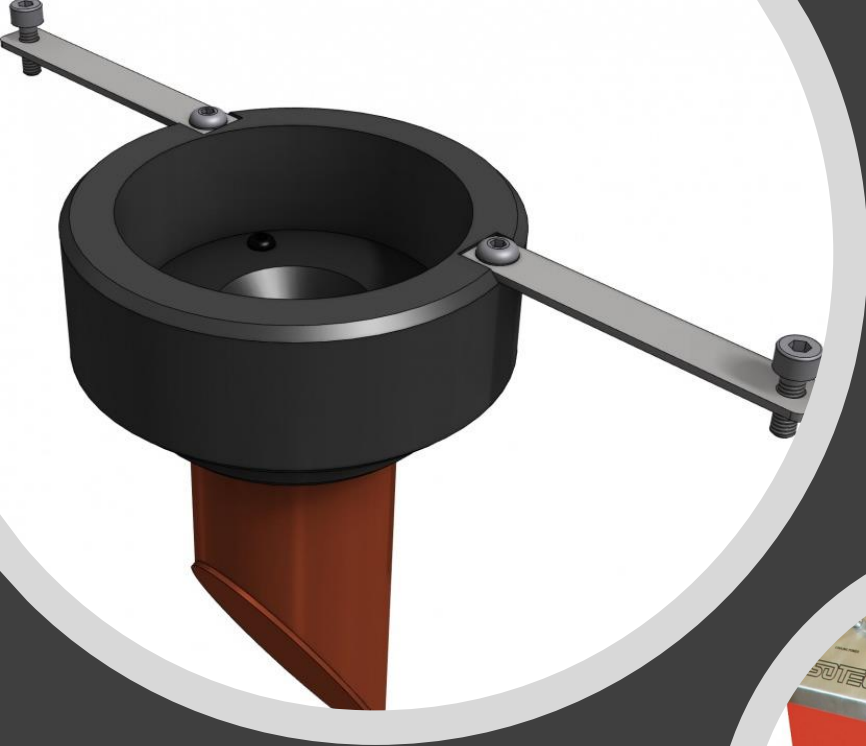
45mm –
Spherical
Cavity

4: Blackbody Assembly for Isotech Liquid Baths



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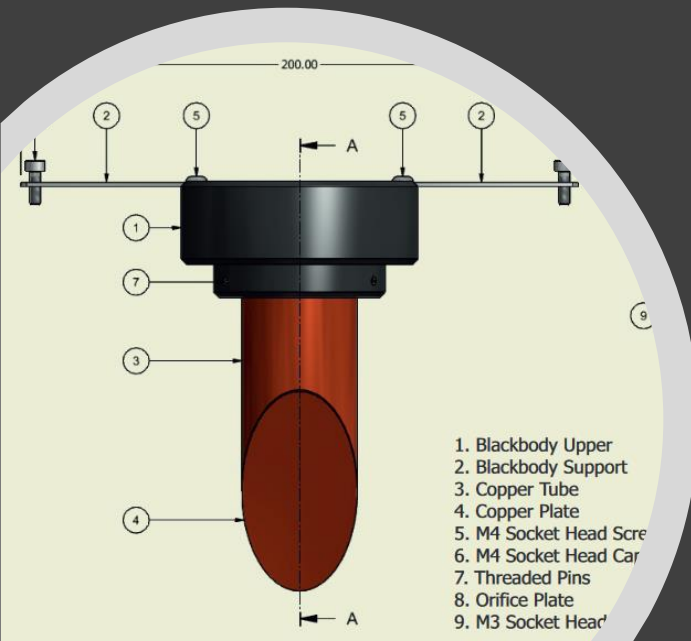




Blackbody Assembly 798-02-58

Fits Isotech Hydra and Orion Baths

This accessory allows the calibration of infrared (IR) thermometers. The geometry and design ensure a high emissivity. The assembly is fastened to the top of the calibration bath and extends into the liquid volume. To ensure excellent emissivity the copper block is internally coated with Pyromark paint.



5: High Emissivity Laboratory Sources for Larger Fixed Point Cells

Clients include National Metrology Institutes



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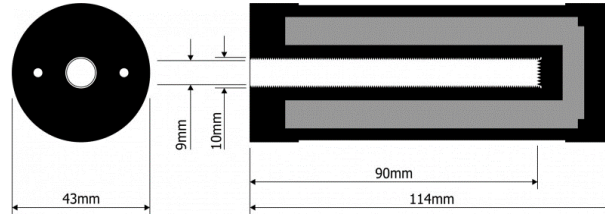




Isotech Blackbody Sources for Primary Cells

- Can Accommodate Large Fixed Point Cells from Indium 156.60°C to the Copper Point at 1084.62°C
- Oberon R uses a heat-pipe for ultra-low gradients

	Temperature Range	Cavity Size
Medusa R	30°C to 550°C	45 x 285mm
Oberon R	450°C to 1100°C	50 x 300mm Heat Pipe



Primary Standard Cells

Point	Part Number	Temperature	Apparatus
Indium	998-06-00A	156.60°C	Medusa R
Tin	998-06-00B	231.93°C	Medusa R
Zinc	998-06-00C	419.53°C	Medusa R
Aluminium	998-06-00D	660.32°C	Oberon R
Silver	998-06-00E	961.78°C	Oberon R
Copper	998-06-00G	1084.62°C	Oberon R

Larger Blackbody Fixed Point Cells

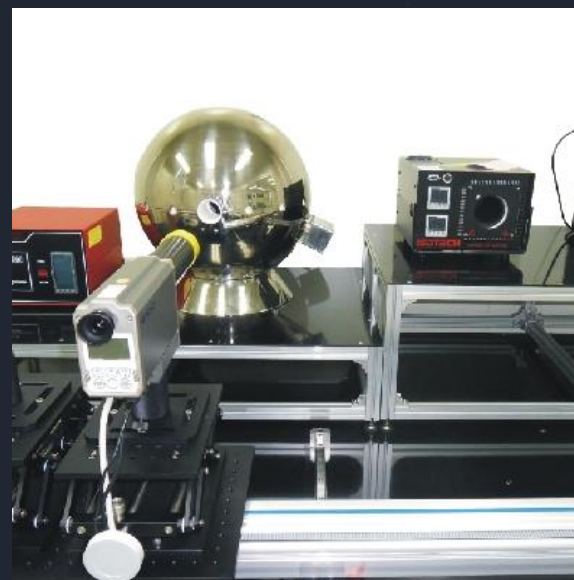
- 6N Purity
- Range of Models – Indium to Copper

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Gemini R and Hyperion R in Use



Blackbody Sources in Use



Further Details www.isotech.co.uk/infrared-calibrators



ISOTECH

World Leader in Temperature Metrology