

# Blackbody Model 988

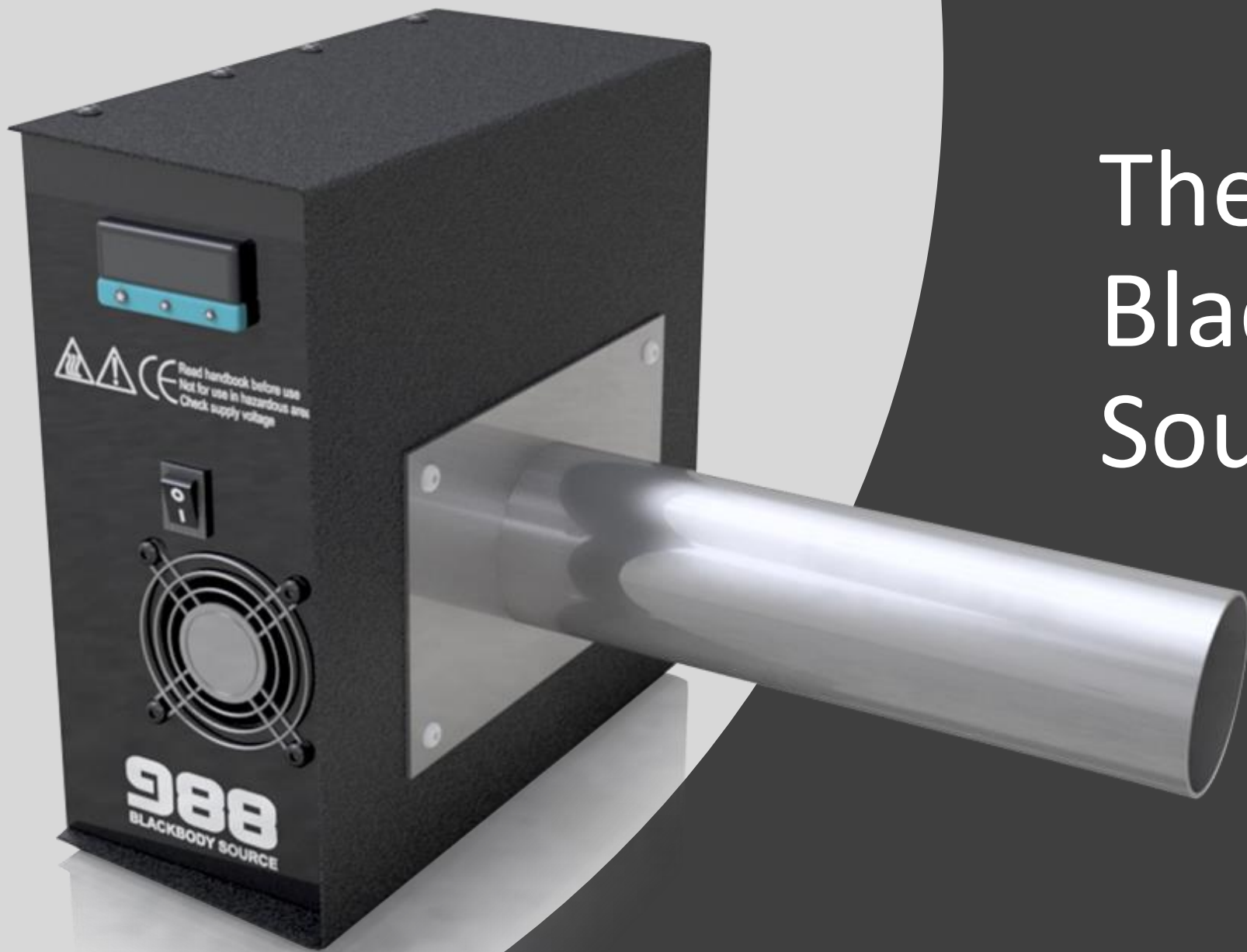


**ISOTECH** 40 years  
1980-2020

# LSOTECH

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





# The Isotech Blackbody Source 988

First introduced 15 years ago to assist in relation to the SARS outbreak

Blackbody calibrators are used to increase the accuracy of non-contact fever detection systems



Now it is being used in relation to  
coronavirus

COVID-19 :Airport Fever Detection System



The model 988 can also be used to check non-contact medical thermometers

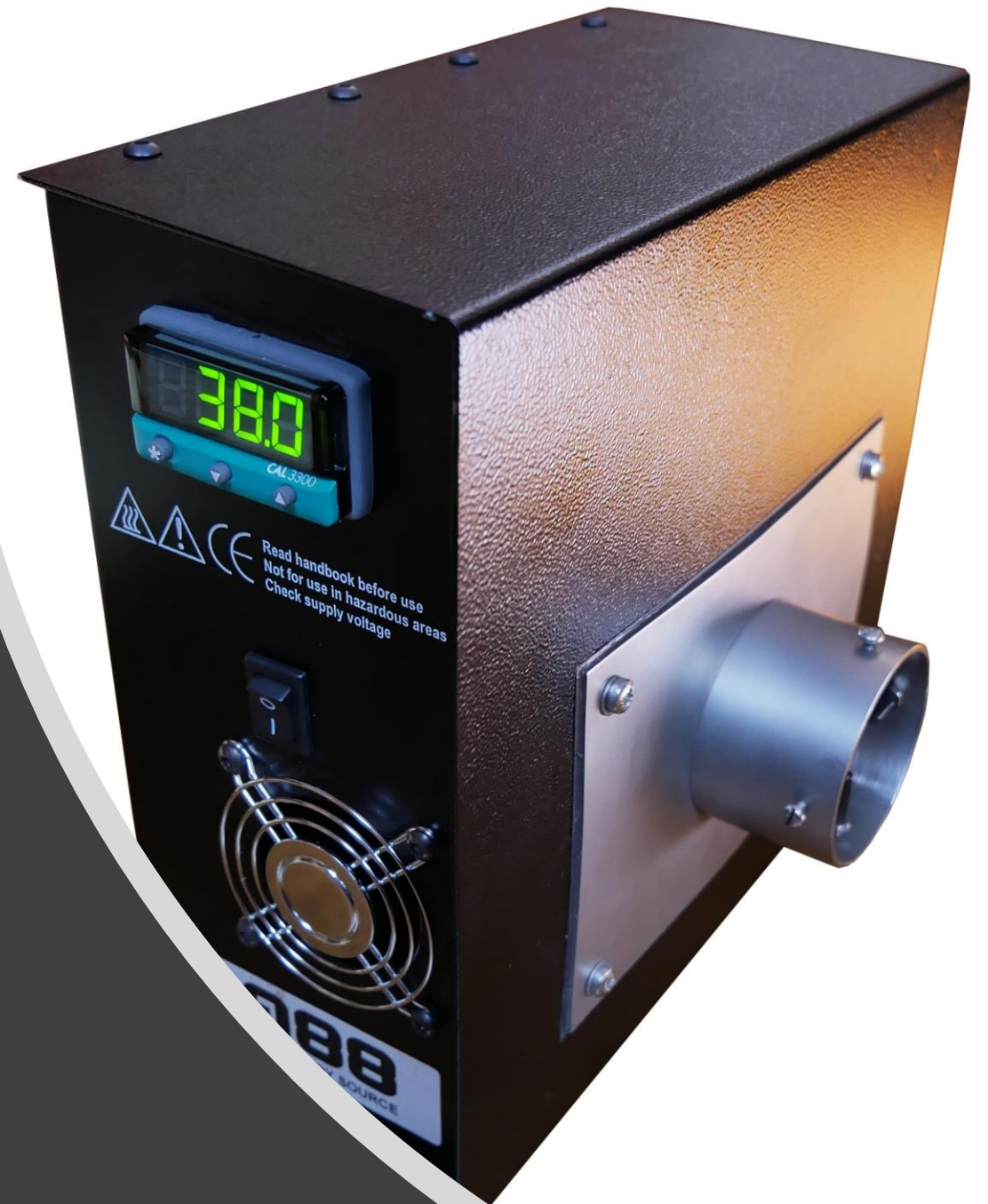
The S version has 40mm tube with a guide to fix the position of the thermometer relative to the heat source

There are options to customize to suit different thermometer types

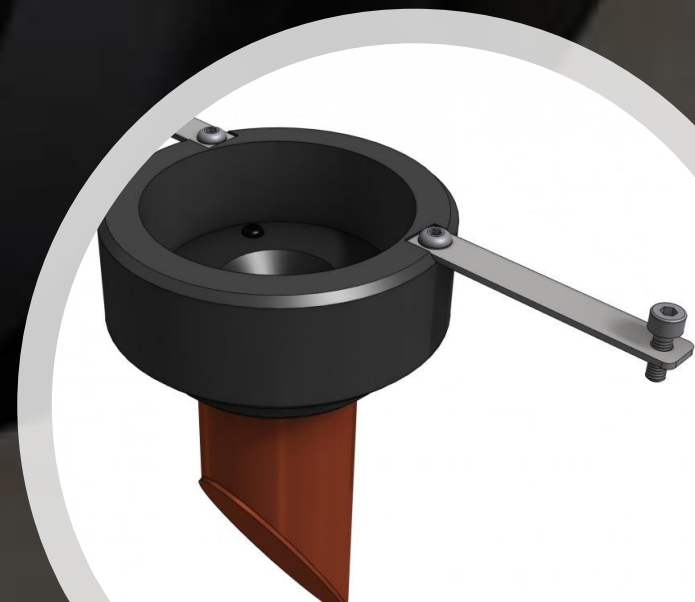




The Model 988 meets  
the demand for a simple  
cost-effective blackbody



Isotech also have  
larger blackbody  
sources for the  
laboratory





The 988 has both heating and active cooling to span the temperature range 20°C to 45°C

An internal solid-state thermoelectric heat pump allows the unit to operate below ambient temperature

It allows the 988 to maintain body temperature in high ambient temperatures – a benefit over heat only blackbody sources



During development, evaluation showed that fitting the extension tube gives better uniformity and less sensitivity to air movement / drafts

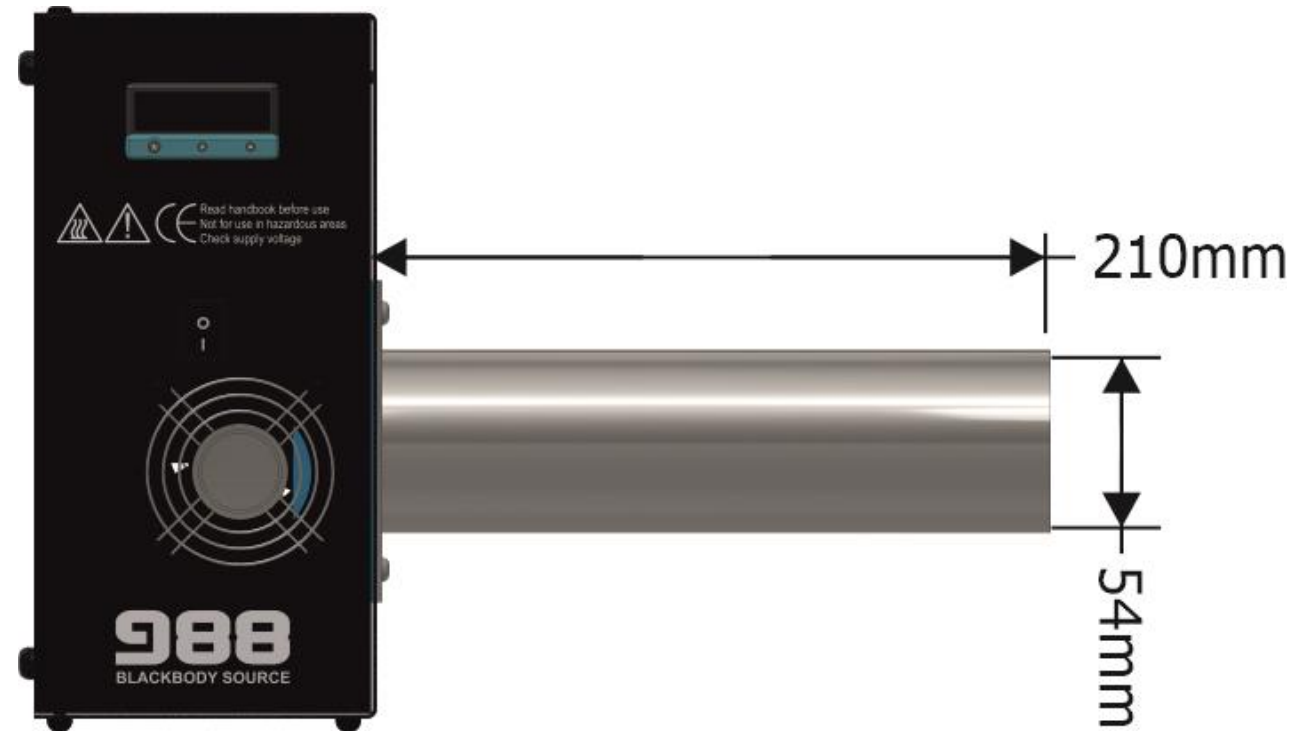


The tube can be removed

There is also a shorter version of the 988 – the 988S



988S

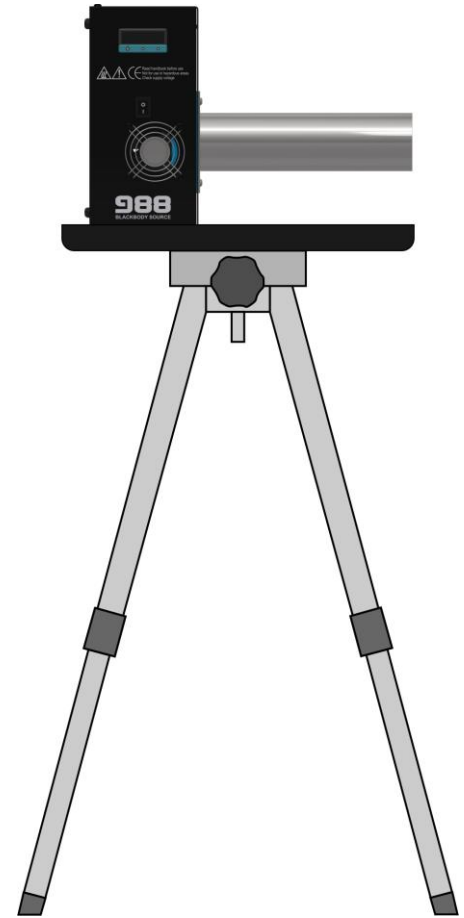


988

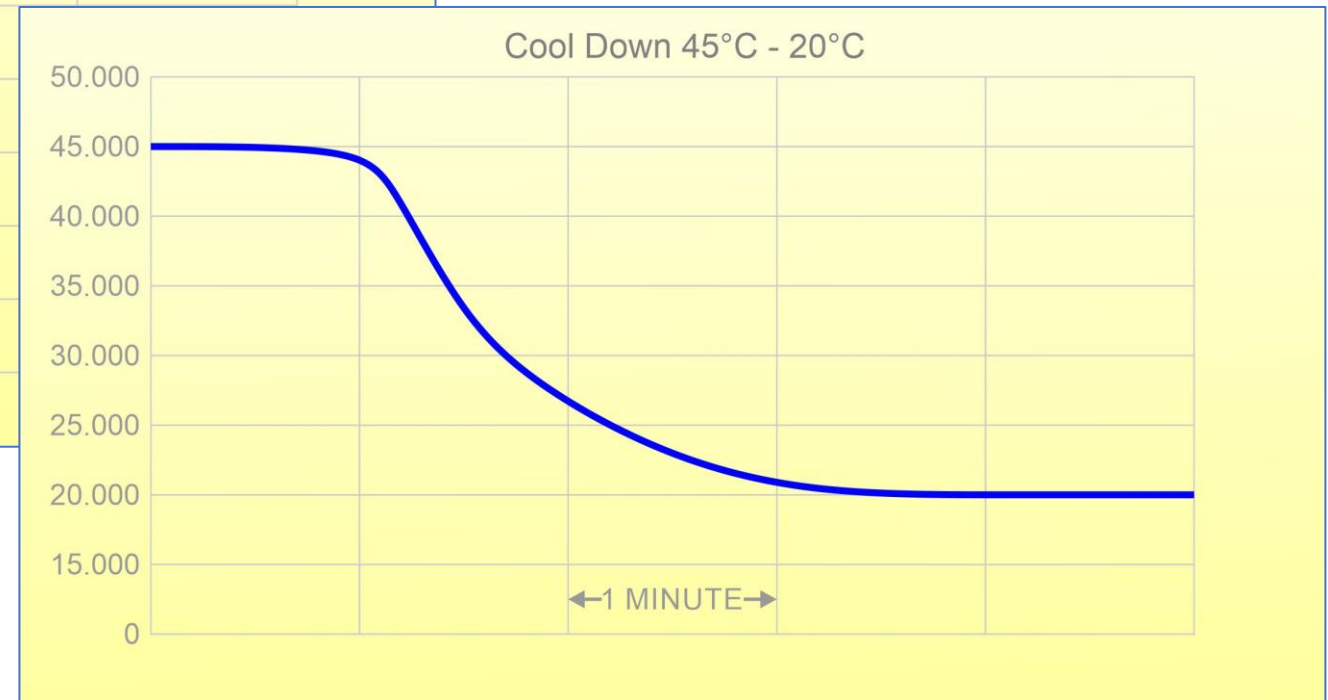
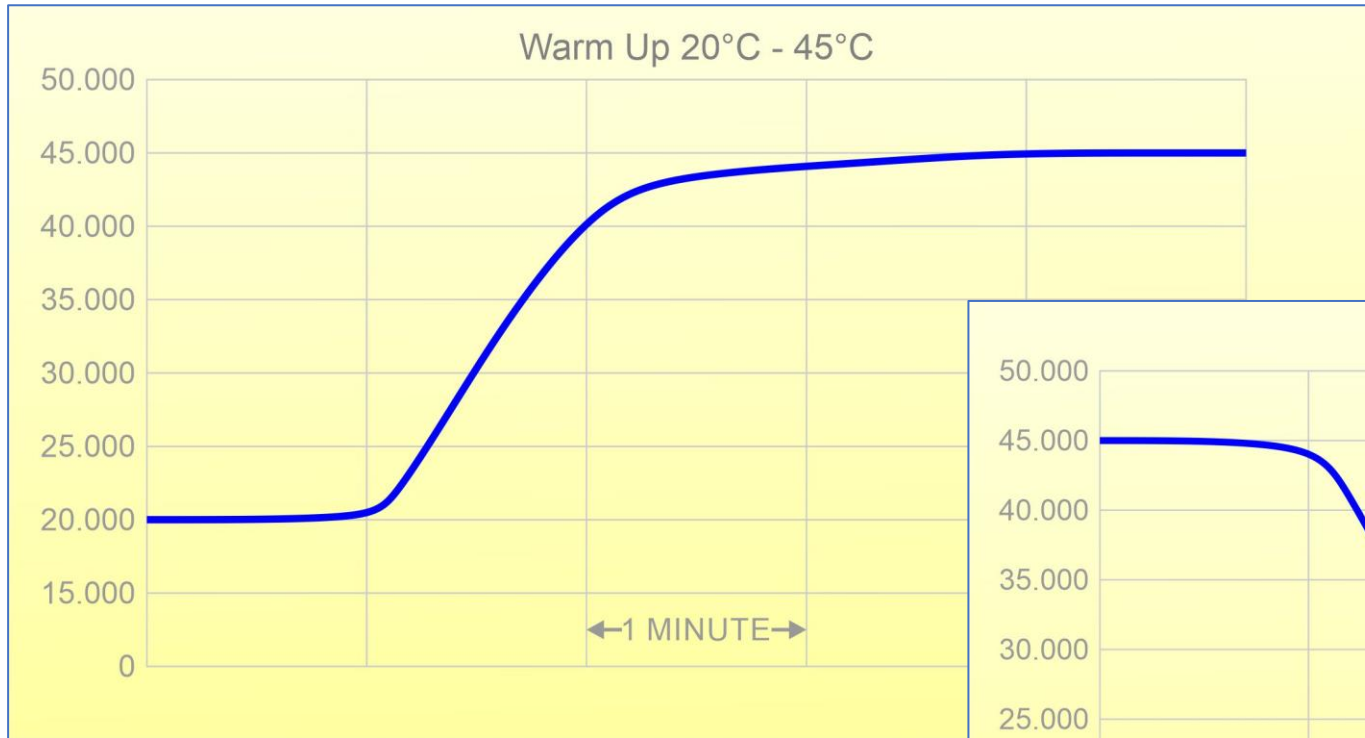
The unit can be used vertically  
as well as horizontally

It is easy to mount

Stand Not Included



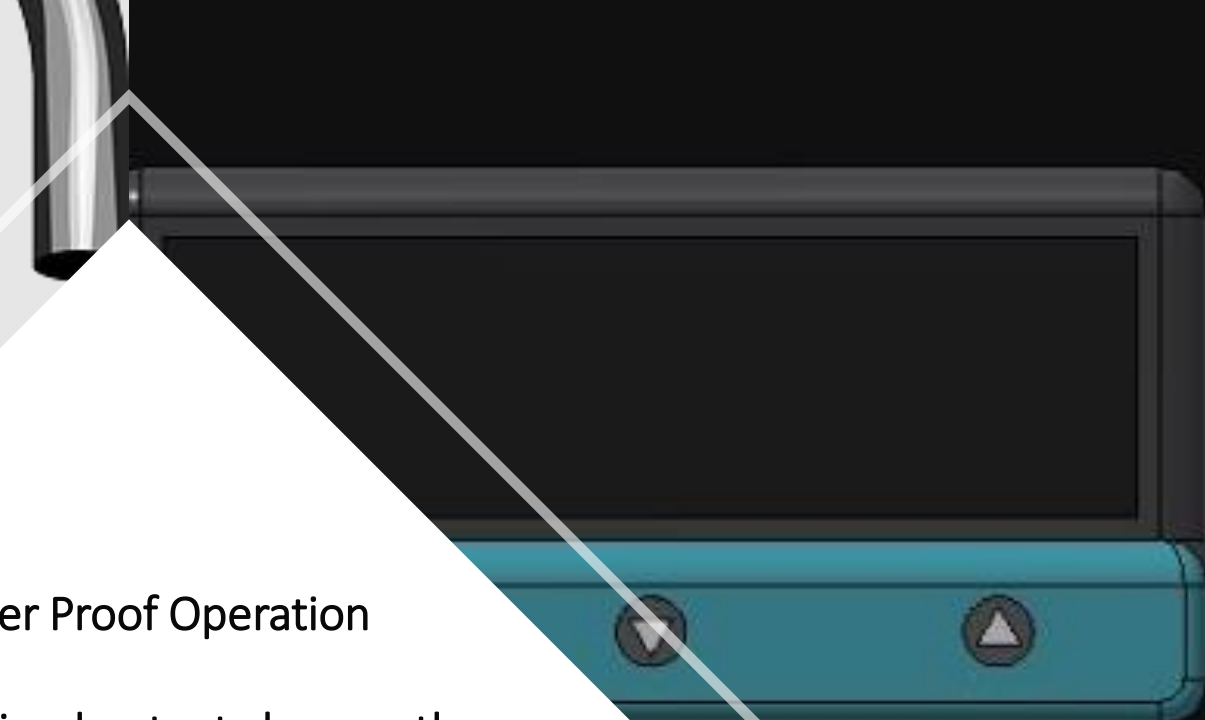
# Fast response to achieve the set temperature







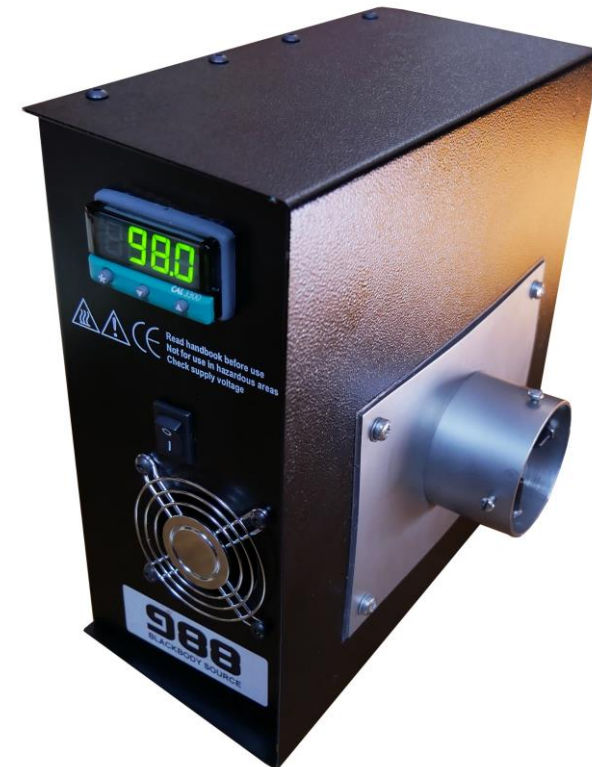
Tamper Proof Operation  
To prevent inadvertent changes the  
operating temperature can be  
locked



Read handbook before  
Not for use in hazardous  
Check supply voltage

Celsius operation ( $^{\circ}\text{C}$ ) is standard, the units can be switched to Fahrenheit ( $^{\circ}\text{F}$ )

---





**ISOTECH**

World Leader in Temperature Metrology



20 to 45°C

# Blackbody Source

## Model 988

- Improves Accuracy of Fever Detection Systems
- Covers 20°C to 45°C with Fast Response
- Check Non-Contact Thermometers

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

This blackbody source meets the demand for a simple, cost effective but high accuracy device for the calibration of thermal imagers and infrared thermometers that are used at temperatures around that of the human body.

Unlike heat only devices, this model uses a solid state thermoelectric heat pump so that the block can be both cooled and heated. This brings two benefits, the blackbody can maintain temperature in high ambient temperature conditions and it can also operate below the ambient temperature.

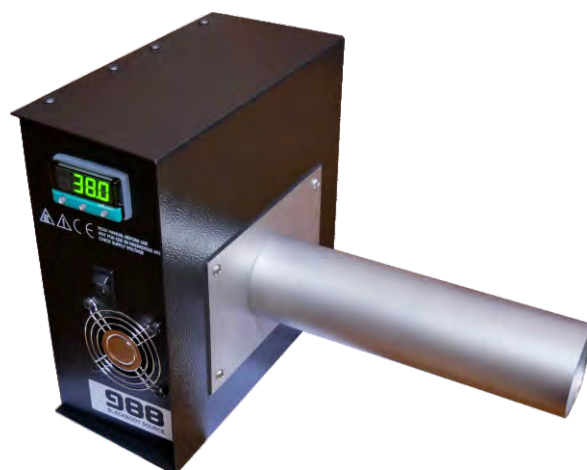
Response time is very fast, typically less than five minutes to achieve the required temperature. (See graphs)

The Model 988 can be used either horizontally or vertically.

The device features a high emissivity ridged plate that is 70 mm diameter. The temperature of the plate can be set from 20°C to 45°C to a resolution of 0.1°C.

To reduce sensitivity to air drafts and ambient temperature effects, a stainless steel tube is fitted in front of the plate with evaluation showing this has advantages over an open plate design. The standard tube length is 210mm and there is an option of a short version, 40mm long that is particularly useful for checking medical thermometers.

For applications where the unit is used at a single fixed temperature, e.g 38°C, the set temperature on the controller can be locked to prevent accidental change or tampering. The operating unit can be switched from Celsius to Fahrenheit.


<http://www.isotech.co.uk>

<b>Model</b>	<b>988</b>
Temperature Range	20°C to 45°C
Resolution	±0.1°C
Target Size	70mm Diameter
Tube Diameter	54mm Diameter
Emissivity	0.97 ±0.02
Combined Accuracy / Stability	±0.2°C (0.3°F)
Power	60 Watts
Voltage	12 Vdc
Dimensions	H 230mm W 225mm D 115mm
Weight	Not including tube 4kg

### Accessories

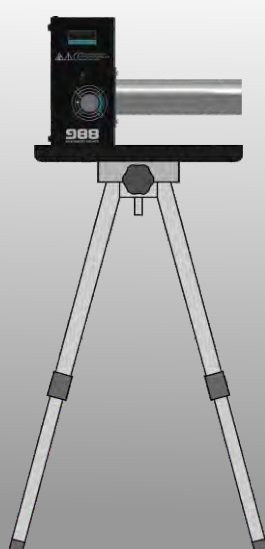
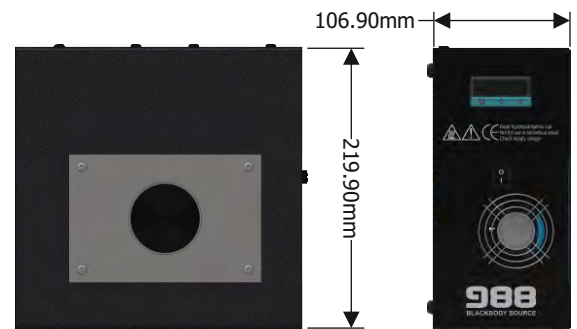
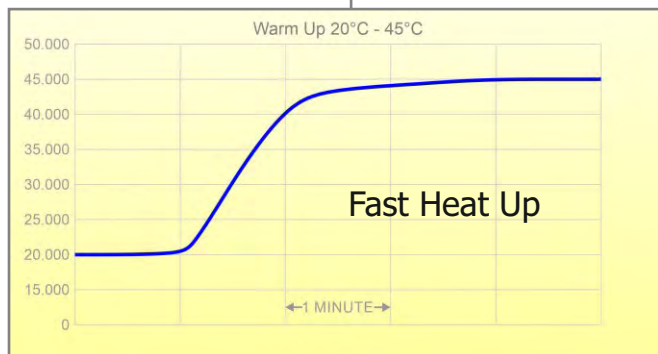
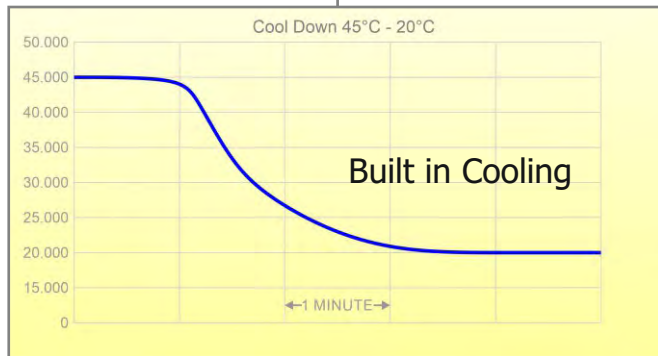
Switch Mode Power Supply as Standard  
100 - 240 VAC

### How to Order

Model 988	with 210mm Tube
Model 988 Short	with 40mm Tube



## Fast Heat up & Cool Down



**988** can be used horizontally or vertically. It is easily supported. (Stand is not included)



### 988

Can be used to improve accuracy of thermal imagers.

