Non Contact Thermometer Calibrator

OB-15/2 BBC (+ 30 °C ...+ 130 °C)

Special calibration baths - metrology performance:

- Blackbody cavity with emissivity higher than 0.99 in a calibration fluid bath
- Ready-to-fit reference PRT or SPRT for monitoring fluid stability
- Various standard and tailored blackbody cavity shapes available
- Metrological uniformity and stability in mK range
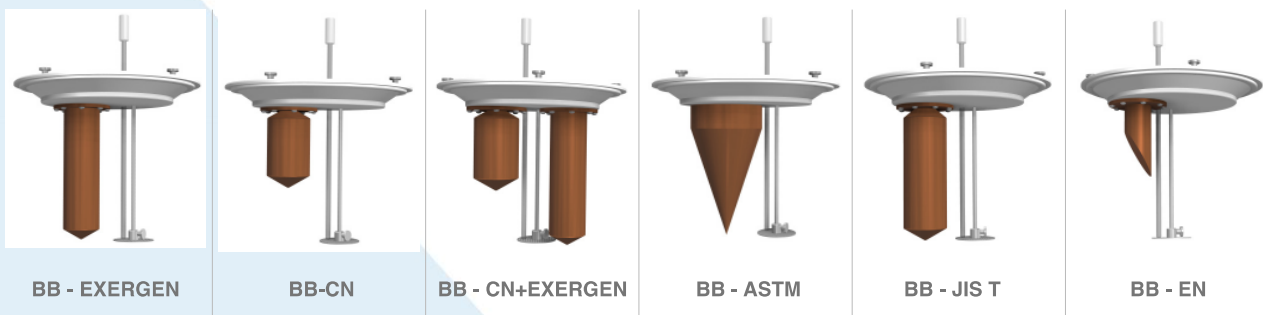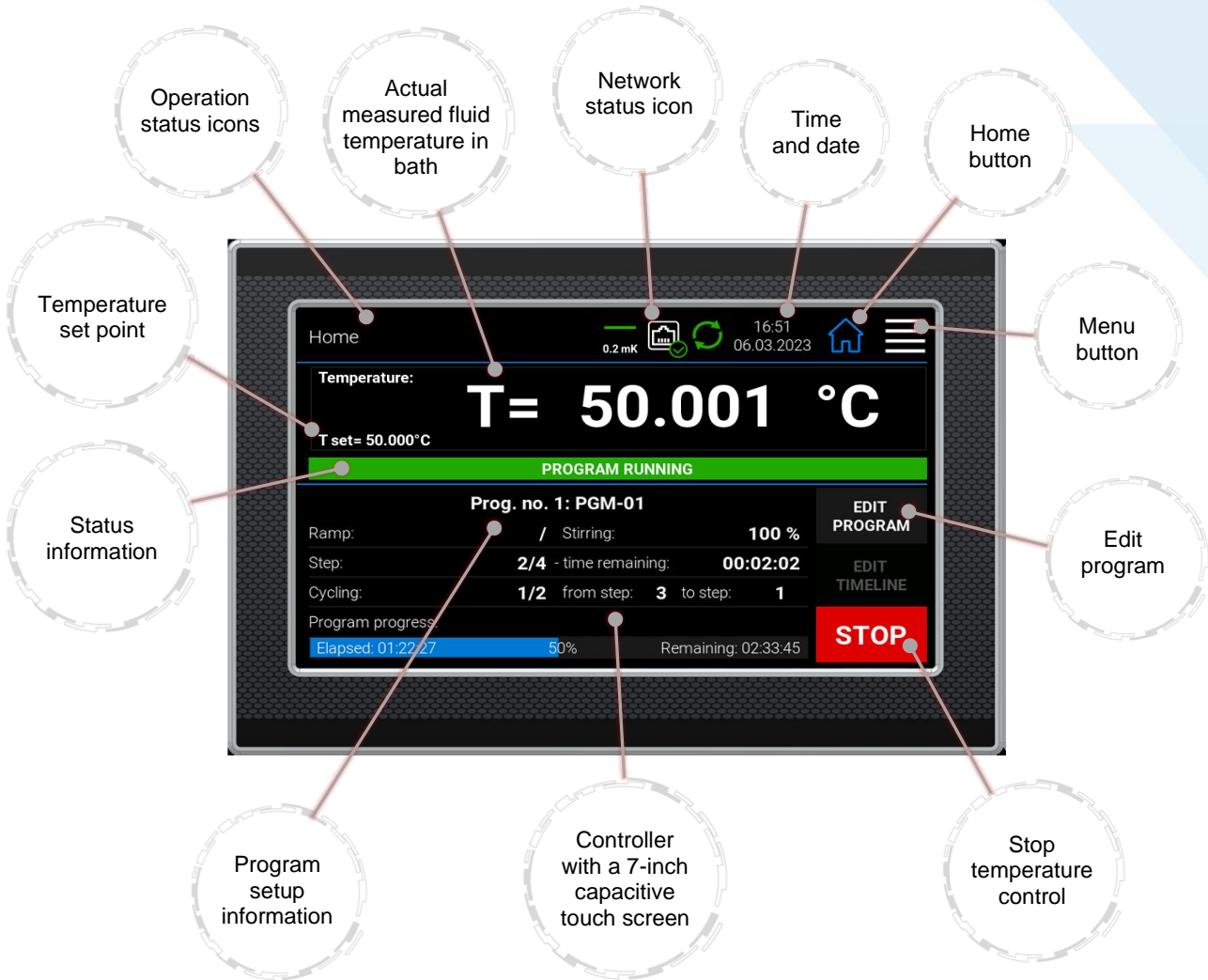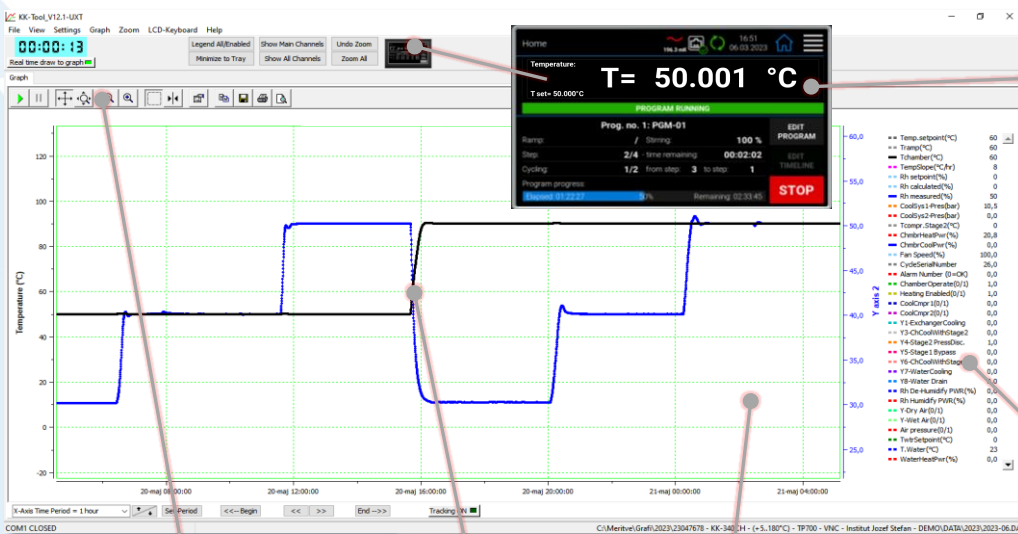- Ready to run in benchtop design

Temperature

Device description:

Over temperature shut off device

Special double cylinder design with unique vertical flow across entire working volume

15L working chamber with immersion depth 270 mm

7'' capacitive touch screen controller with user friendly interface, advance settings options, Ethernet and USB communication ports

Insulation cover with pre-drilled holes for vertical fixture and temperature probe insertion included

Extensive high performance heat insulation

22.136 °C

All exterior and interior in stainless steel AISI 304 SB with rounded corners

Overflow drain with catch pot and fluid drain valve on the back side of the unit

Black Body Cavity – available in various types

Black-body cavity options:

| BB - EXERGEN | BB-CN | BB - CN+EXERGEN | BB - ASTM | BB - JIS T | BB - EN |

Touch display with advanced controller functions:

Operation status icons

Actual measured fluid temperature in bath

Network status icon

Time and date

Home button

Temperature set point

Menu button

Status information

Edit program

Program setup information

Controller with a 7-inch capacitive touch screen

Stop temperature control

OB-Tool software for PC (free – included with every unit):

Virtual control panel - Complete remote control of the unit

Channels

Function keys for viewing manipulation of the graph

Real time data drawn to graph

Full process history overview

Technical data:

	OB-15/2
External dimensions (WxHxD) [mm]	534 x 545 x 474
Internal dimensions (diameter x immersion depth) [mm]	Ø 225 x 270
Volume [L]	~ 15
Fluid quantity for operation [L]	20
Temperature range [°C]	+ 30 °C …+ 130 °C *(0 °C … 130 °C when connected to a circulating cooler)*
Temperature display resolution [°C]	0.001
Temperature set resolution [°C]	0.001
Temperature stability [°C]	± 0.002 @ 30 °C ± 0.002 @ 37 °C ± 0.002 @ 50 °C ± 0.003 @ 70 °C ± 0.003 @ 100 °C
Temperature uniformity [°C]	± 0.007
Heating rate	~ 1 hour (+ 40 °C …+ 100 °C)
Cooling rate	N/A (natural cooling)
Temperature Control	PID
Noise level [dBA]	< 48
Cooling	Natural cooling *(Ready for connection to a circulating cooler)*
Power supply	230 V 50/60 HZ (± 10 %)
Wattage [W]	1100
Interface	Ethernet, USB
Overflow catch pot	Included
Weight [kg]	~ 41

All performance in controlled environment (Tambient = 22 °C ± 3 °C)!

Accessories might affect performance!

OB-15/2 BB performance data with fluid KDC 200.50

All the specifications are related to the bath and the fluid (not to the Black Body Cavity)

Accessories:

- LIG thermometer holder

- Vertical fixture
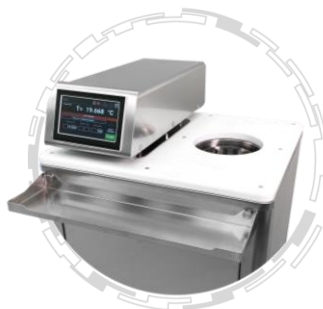

- Adjustable multiple probe fixture
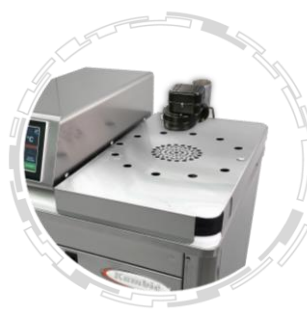

- External fluid level for LIG

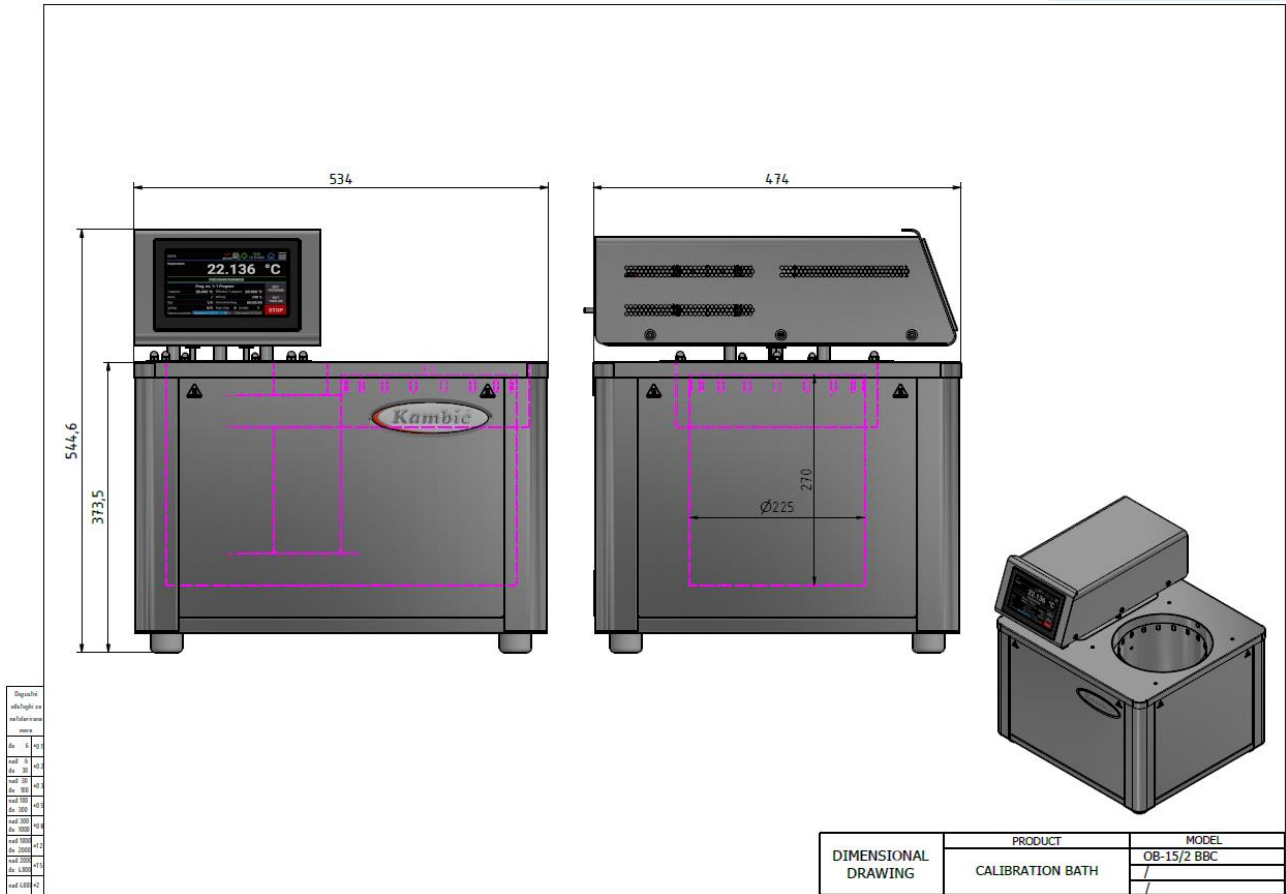- Additional lid

- Removable shelve

- Fume hood

- Evaluation report

Ordering information and accessories:

Description	Part no.
Calibration bath OB-15/2 BBC	1925
Black Body cavity ASTM standard (vertical insertion flange)	2975
Black Body cavity JIS T standard (vertical insertion flange)	2976
Black Body cavity CEN EN standard (vertical insertion flange)	2977
Black Body cavity CN standard (vertical insertion flange)	2978
Black Body cavity EXERGEN standard (vertical insertion flange)	2979
Black Body cavity Combo (two bodies on one flange - vertical insertion)	/
Evaluation report – performed by Kambic	1719
Evaluation report (accredited ISO/IEC 17025:2017)	1777
External fluid level for LIG	1655
Vertical fixture	1657
Adjustable multiple probe fixture	1733
LIG (liquid in glass thermometer) fixture	1735
Local fume hood with fan	1656
Removable shelve	1658
Black body mounting flange cover (for operating without black body cavity)	2118
Extra lid for OB-15/2	2116
Extra side insulation lid for OB-15/2	2117
Silicone oil fluid KDC 200.50 (+ 30 °C …+ 278 °C)	631
Silicone oil fluid KDC 200.05 (- 40 °C …+ 130 °C)	645

*Black Body Cavity is not included with the base unit. It has to be ordered separately! *Accessories might affect performance!

	PRODUCT	MODEL
DIMENSIONAL DRAWING	CALIBRATION BATH	OB-15/2 BBC

Black-body cavity:

1. Blackbody opening

2. Reference sensor opening

3. Height-adjustable shelf for reference sensor

4. Blackbody cavity

* Black Body Cavity is not included with the base unit. It has to be ordered separately!