

Facts:

	C 2000 basic V. 1	C 2000 basic V. 2	C 2000 control V. 1	C 2000 control V. 2
Measurement				
Measuring range max. [J]	40.000	40.000	40.000	40.000
Measuring mode dynamic 25°C	yes	yes	yes	yes
Measuring mode isoperibol 25°C	yes	yes	yes	yes
Measuring mode dynamic 30°C	yes	yes	yes	yes
Measuring mode isoperibol 30°C	yes	yes	yes	yes
Measuring time dynamic approx. [min]	7	7	7	7
Measuring time isoperibol approx. [min]	22	22	22	22
Reproducibility dynamic (1g benzoic acid NBS39i) [%RSD]	0.1	0.1	0.1	0.1
Reproducibility isoperibol (1g benzoic acid NBS39i) [%RSD]	0.05	0.05	0.05	0.05
Temp. measurement resolution [K]	0.0001	0.0001	0.0001	0.0001
Decomposition vessel	C5010	C5012	C5010	C5012
Cooling				
Cooling medium temperature [°C]	12 – 28	12 – 28	12 – 28	12 – 28
Cooling medium permissible operating pressure [bar]	1 – 1,5 bar	1 – 1,5 bar	1 – 1,5 bar	1 – 1,5 bar
Cooling medium	dist. water	dist. water	dist. water	dist. water
Type of cooling	flow	flow	flow	flow
Flow rate [l/h]	60	60	60	60
Oxygen operating pressure [bar]	30	30	30	30
Interfaces				
Scale	RS232	RS232	RS232	RS232
Printer	Centronix	Centronix	Centronix	Centronix
PC	RS232	RS232	RS232	RS232
Test rack	yes	yes	yes	yes
Ext. monitor, keyboard	yes	yes	yes	yes
General Data				
Dimensions, W x D x H [mm]	440 x 450 x 500	440 x 450 x 500	440 x 450 x 500	440 x 450 x 500
Weight [kg]	35	35	35	35
Ambient temperature [°C]	20 - 25	20 - 25	20 - 25	20 - 25
Ambient humidity [%]	80	80	80	80
Protection class acc. to DIN EN 60529	IP 21	IP 21	IP 21	IP 21

C 2000  
Accessories and consumables

Accessories for C 2000	Ident. No.
C 5010 Decomposition vessel, standard	7114000
C 5012 Decomposition vessel, halogen resistant	7215000
C 5010.4 Attachment for combustible crucible C 14 (for C 5010 / C 5012)	3016900
C 5010.5 Crucible holder, big (for C 5010 / C 5012)	3055900
C 5030 Venting station (for C 5010 / C 5012) with gas wash bottle acc. to DIN 12596 (for gas absorption)	7198000
C 5020 Sample rack	7145000
KV 600 Cooling water supply (230 V)	3410500
KV 600 Cooling water supply (115 V)	3410501
C 5041.10 Connection cable	3036000
C 21 Pelleting press	1605300
C 25 Pressure regulating valve to operate with firmly installed water connection	3197200
C 29 Pressure gauge, oxygen	0750200
C 62 Decomposition vessel, "high pressure"	3265000
C 60 Conversion set for C 62	3187400

Instructions on the IKA® calorimeter system C 5000 available on request

Consumables for C 2000	Ident. No.
C 5003.1 Aqua Pro stabilizing agent (2 x 20 ml)	7207700
C 710.4 Cotton thread, cut to length (500 pieces)	1483700
C 5010.3 Ignition wire, spare (5 pieces)	7122800
C 5012.3 Ignition wire, platinum (2 pieces)	2994900
C 4 Quartz dish	1695500
C 5 Set of VA combustion crucibles (25 pieces)	1749500
C 6 Quartz dish, big	0355100
C 710.2 Set of VA combustion crucibles (25 pieces)	1483500
C 9 Gelatine capsules (100 pieces)	0749900
C 10 Acetobutyrate capsules (100 pieces)	0750000
C 12 Combusion bags 40 x 35 mm (100 pieces)	2201400
C 12 A Combusion bags 70 x 40 mm (100 pieces)	2201500
C 14 Combustible crucible (100 pieces)	7224500
C 15 Paraffin strips (600 pieces)	3131100
C 16 Parafilm (100 x 5 cm)	3801100
C 17 Paraffin, liquid (20 ml)	3801200
C 43 Benzoic acid NIST 39i (30 g)	0750600
C 723 Benzoic acid, blister package (50 pieces)	3243000
C 723 Benzoic acid, blister package, big pack (450 pieces)	3717400
C 58 Set of wearing parts (for C 2000 high pressure)	3296300
C 59 Combustion crucibles for C 62 (for C 2000 high pressure)	3266000
AOD 1.11 Control standard for sulfur and chlorine (50 ml)	3044000
AOD 1.12 Control standard for fluorine and bromine (50 ml)	3080200



Designed  
to work perfectly

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Subject to technical changes. Indications not binding for delivery.

C2000\_DE\_oP\_12/09



C 2000 Calorimeter



Designed  
to work perfectly

# IKA® Calorimeter System C 2000

The C 2000 basic and C 2000 control calorimeters are the tried-and-tested systems from IKA® for determining gross calorific values of liquid and solid samples.

A high level of automation with extremely simple handling characterizes these instruments. In addition to the isoperibolic measurement procedure (static jacket), a dynamic (reduced-time) working method is also available. Halogen resistant decomposition vessels of the C 5012 series for quantitative decomposition of sulfur and halogens in parallel to determining gross calorific values are available.

To provide the calorimeters with cooling water, they need to be connected to a thermostat. e.g. IKA® KV 600 or a firmly installed

water supply.

The C 2000 basic is equipped with a very convenient console to operate the unit. The C 2000 control is delivered with the proven C 5040 CalWin calorimeter software in order to control the system via PC. Network connection and special configuration for data exchange with LIMS can be implemented at any time. The C 2000 high pressure is a combination of the C 2000 basic / C 2000 control and the C 62 decomposition vessel (up to 1200 bar operating pressure).

### Features:

- Automatic water handling system includes tempering, filling and emptying of calorimeter inner vessel
- Automatic oxygen filling of decomposition vessel
- Automatic decomposition vessel identification
- Automatic sample ignition
- Validation according to DIN 51900, ASTM 240 D, ISO 1928, BSI etc.
- GOST-certified
- Operating methods:
  - isoperibol, measurement time: approx. 22 min
  - dynamic, measurement time: approx. 7 min
- Compact, integrated modular design for convenient operation
- Cooling water supply via thermostat, e.g. KV 600 or firmly installed water supply (C 25 pressure regulating valve recommended
- Interface connections for each of the following: scale, printer, monitor and sample rack C 5020
- User-friendly software C 5040 CalWin for controlling the calorimeter and administrating measured data
- LIMS integration is possible
- Special halogen resistant vessel for quantitative decomposition of halogens and sulfur
- The decomposition vessel can be changed to use disposable crucible C 14
- Up to 8 calorimeters can be controlled by a single PC, using a multi-serial plug-in card



# C 2000 basic

## C 2000 basic Version 1

For determination of calorific values of solid and liquid fuels.

Consisting of:

- 1 C 2000 basic
- 2 C 5010 Decomposition vessel, standard

Consumables for installation, calibration and unit start up are also included with delivery.

C 2000 basic Version 1	Ident. No.
230 V / 50-60 Hz	8801800
115 V / 50-60 Hz	8801801

## C 2000 basic Version 2

For determination of calorific values of solid and liquid fuels. Halogen resistant and catalytic activated decomposition vessel for simultaneous decomposition of halogens and sulfur included.

Consisting of:

- 1 C 2000 basic
- 2 C 5012 Decomposition vessel, halogen resistant

Consumables for installation, calibration and unit start up are also included with delivery.

C 2000 basic Version 2	Ident. No.
230 V / 50-60 Hz	8801900
115 V / 50-60 Hz	8801901



C 2000 basic Version 1

## KV 600 digital

KV 600 digital is an active chiller with air-cooled refrigeration unit. The KV 600 digital has a microcontrol controller. Temperature constancy 1 K. Cooling performance and flow rate of the cooling water supply are optimally adjusted to the requirements of the IKA® calorimeter C 5000 control Package 2.

KV 600 digital	Ident. No.
230 V / 50-60 Hz	3410500
115 V / 50-60 Hz	3410501



KV 600 digital

# C 2000 control

## C 2000 control Version 1

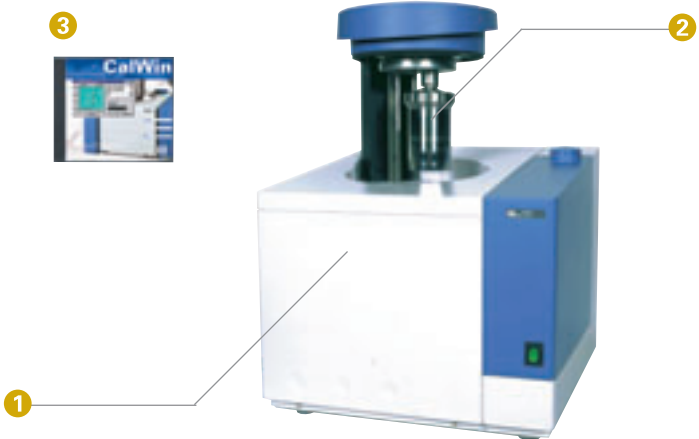
For determination of calorific values of solid and liquid fuels.

Consisting of:

- 1 C 2000 control
- 2 C 5010 Decomposition vessel, standard
- 3 C 5040 CalWin, calorimeter software

Consumables for installation, calibration and unit start up are also included with delivery.

C 2000 control Version 1	Ident. No.
230 V / 50-60 Hz	8802000
115 V / 50-60 Hz	8802001



C 2000 control Version 1

## C 2000 control Version 2

For determination of calorific values of solid and liquid fuels. Halogen resistant and catalytic activated decomposition vessel for simultaneous decomposition of halogens and sulfur included.

Consisting of:

- 1 C 2000 control
- 2 C 5012 Decomposition vessel, halogen resistant
- 3 C 5040 CalWin, calorimeter software

Consumables for installation, calibration and unit start up are also included with delivery.

C 2000 control Version 2	Ident. No.
230 V / 50-60 Hz	8802100
115 V / 50-60 Hz	8802101

## C 2000 Extension device

Consisting of:

C 2000 control (without calorimeter software, without decomposition vessel)

C 5041.10 connection cable (for 8 x interface box)

max. 8 devices

