

# Calorimeter System C 200



Compact low cost semi automated calorimeter to determine calorific values of liquid and solid samples. Suitable for educational purposes (e.g. technical schools, universities) and for commercial, industrial laboratories with a low number of samples.

The C 200 system includes the following components:

- Basic device (measuring cell) C 200 incl. power pack and ignition adaptor
- Decomposition vessel C 5010
- Oxygen station C 248
- Further consumables for installation and calibration included

- Recommended for educational purposes as well as for laboratories with a low number of samples
- Space saving, low cost combustion calorimeter to determine calorific values of liquid and solid samples
- Calorific value measurement in accordance with DIN 51900, ISO 1928, ASTM D240, ASTM D4809, ASTM D5865, ASTM D1989, ASTM D5468, ASTM E711, GOST 147, GOST 21261...
- Four different test procedures isoperibol, dynamic, manual and time-controlled allow ideal adaptation to various tasks
- Includes external power pack, complies with all global voltages from 100 - 240 V AC, 50/60 Hz; calorimeter is powered with a low operating voltage 24 V DC
- Clear, self-explanatory menu structure and easy to operate display
- Manual oxygen filling and venting
- Manual water preparation, automated water filling into the bucket
- Highly operator and maintenance friendly
- Manual operating mode (educational mode): ignition and end of measurement are activated by user; changes are displayed in one minute intervals; all calculations need to be performed manually
- Isoperibol, dynamic and time-controlled modes: automatic ignition and calculation of calorific value; result is displayed
- Suitable for use with Calwin C 5040 calorimeter software: monitoring and visualisation of measuring procedure (data export and further processing is possible in Excel and / or Word etc.)



Designed  
to work perfectly

**dijkstra  
verenigde**  
Postbus 2151                      Pascallaan 9  
8203 AD Lelystad                8218 NJ Lelystad  
Tel: 0320-266171                Fax: 0320-257354  
email: [laboratorium@dijkstra.net](mailto:laboratorium@dijkstra.net)  
[www.dijkstra.net](http://www.dijkstra.net)

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## System properties C 200

The system can be adapted to individual laboratory tasks by adding further accessories.

Please do not hesitate to contact us for further application support: applicationsupport@ika.de

### Four different possible test procedures:

Measuring mode	Measuring time
isoperibol	up to 17 min
dynamic	up to 8 min
manual (isoperibol)	up to 17 min
time-controlled	up to 14 min

Technical data	
Input power max.	120 W
Rated voltage	24 V DC, 5 A
Fuse	1 x 2.5 AT
Max. On-time	continuous operation
Range of measurement	40.000 J
Reproducibility	
based on analysis of 1 g	
benzoic acid NBS 39i	0,1 % RSD
Operating oxygen pressure	30 bar
General data	
Dimensions (W x D x H)	400 x 400 x 400 mm
Weight	21 kg
Protection class	III
Interfaces	1 x serial (RS 232) 1 x parallel (Centronics)
Ambient temperature	20 – 25 °C (constant)
Ambient humidity	80 %
Protection class according to DIN EN 60529	IP 20



Consumables for C 200	Ident. No.
C 710.4 Cotton thread, cut to length (500 pieces)	1483700
C 5010.3 Ignition wire, spare (5 pieces)	7122800
C 4 Quartz dish	1695500
C 5 Set of VA combustion crucibles (25 pieces)	1749500
C 6 Quartz crucible, big	0355100
C 710.2 Set of VA combustion crucibles, big (25 pieces)	1483500
C 9 Gelatine capsules (100 pieces)	0749900
C 10 Acetobutyrate capsules (100 pieces)	0750000
C 12 Combustion bags, 40 x 35 mm (100 pieces)	2201400
C 12A Combustion bags, 70 x 40 mm (100 pieces)	2201500
C 43 Benzoic acid (NBS 39i, 30 g)	0750600
C 723 Benzoic acid, blister package (50 pieces)	3243000
C 14 Combustible crucible (100 pieces)	7224500
C 15 Paraffin strips (600 pieces)	3131100
C 16 Parafilm, 1.000 x 50 mm	3801100
C 17 Paraffin, liquid, 30 ml	3801200

Accessories for C 200	Ident. No.
C 5010 Decomposition vessel, standard	7114000
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 5041.10 Connection cable	3036000
C 21 Pelleting press	1605300
C 29 Pressure gauge, oxygen	0750200
C 248 Oxygen station	3520000
C 200.1 Measuring cup 2.000 ml	3548900

We recommend the IKA® analytical mill A 11 basic for sample homogenizing.



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