

C 5000 control package 1/10



The IKA® calorimeter C 5000 control is the only calorimeter in the world that offers a free selection of 3 working methods:

Thus it is possible to perform determinations of gross calorific values of liquid and solid samples in adiabatic (approx. 14 – 18 min), isoperibolic (approx. 22 min) and dynamic (reduced time: approx. 10 min) mode. A high level of automation in addition to an extensive range of accessories leave nothing more to wish for.

- Automatic water handling system includes tempering, filling and emptying of calorimeter inner vessel
- Automatic oxygen filling and degassing of the decomposition vessel
- Automatic decomposition vessel identification
- Validation according to DIN 51900, ASTM 240 D, ISO 1928, BSI etc.
- 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 administration of measuring data (accessory)
- LIMS integration is possible
- Special halogen resistant vessel C 5012 for quantitative decomposition of halogens and sulfur (accessory)
- The decomposition vessel can be changed over to use combustible crucibles C 14 (accessory C 5010.4 is needed)
- The C 5000 control can be expanded to the duocontrol system with two measurement cells at any time C 5000 Standard consumables for calibrations and initial operation included with delivery

Technical Data			
Measuring range max. [J]	40000	Measuring mode adiabatic 22°C [-]	yes
Measuring mode dynamic 22°C [-]	yes	Measuring mode isoperibol 22°C [-]	yes
Measuring mode adiabatic 25°C [-]	yes	Measuring mode dynamic 25°C [-]	yes
Measuring mode isoperibol 25°C [-]	yes	Measuring mode dynamic 30°C [-]	no
Measuring mode isoperibol 30°C [-]	no	Measuring mode double dry (ISO 1928) [-]	no
Measuring time adiabatic approx. [min]	15	Measuring time dynamic approx. [min]	10
Measuring time isoperibol approx. [min]	22	Reproducibility adiabatic (1g benzoic acid NBS39i) [%RSD]	0.05
Reproducibility dynamic (1g benzoic acid NBS39i) [%RSD]	0.1	Reproducibility isoperibol (1g benzoic acid NBS39i) [%RSD]	0.05
Working temperature min. [°C]	20	Working temperature max. [°C]	25
Temperature measurement resolution [K]	0.0003	Cooling medium [-]	dist. water
Type of cooling [-]	internal	Oxygen operating pressure max. [bar]	40
Interface scale [-]	RS232	Interface printer [-]	Centronix
Interface PC [-]	RS232	Interface test rack [-]	yes
Interface ext. monitor [-]	no	Interface ext. keyboard [-]	no
Oxygen filling [-]	yes	Degasification [-]	yes
Decomposition detection [-]	yes	Decomposition vessel C 5010 [-]	yes
Analysis according to DIN 51900 (1977/84) [-]	yes	Analysis according to ASTM D240 (2002) [-]	yes
Analysis according to ASTM D4809 (2000) [-]	yes	Analysis according to ASTM D1989 (1992) [-]	yes
Analysis according to ASTM D5468 (2002) [-]	yes	Analysis according to ASTM D5865 (2001) [-]	yes
Analysis according to ASTM E711 [-]	yes	Dimensions (W x H x D) [mm]	740 x 400 x 380

Weight [kg]	58	Permissible ambient temperature [°C]	20 – 25
Permissible relative moisture [%]	80	Protection class according to DIN EN 60529 [-]	IP 21
RS 232 interface [-]	yes	Voltage [V]	230
Frequency [Hz]	50/60	Power input [W]	1300



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