

## Data Sheet

Analytical line / Calorimeters



### C 1

The C 1 static jacket oxygen bomb calorimeter represents a giant leap forward in calorimeter technology by featuring a high degree of automation in a compact design; the smallest calorimeter footprint available. It operates according to DIN 51900 and ISO 1928. The temperature readings are analyzed according to the classical isoperibol method of Regnault Pfaundler. The traditionally known, comparably heavy screw threaded decomposition vessel, has been replaced by a light and easily attachable combustion chamber. Due to the variety of different interfaces (PC, balance, printer) this unit is easily adaptable depending on the customer's specific application needs. Further adaption to data management and LIMS is possible with our calorimeter software C 6040 Calwin (Accessory).

The C 1 Calorimeter can only be operated together with a fitted cooling water supply unit. Therefore we recommend our C 1 Package 1/10 for best performance. It includes the chiller RC 2 basic and ensures best possible connectivity and function of the Calorimeter.

The unit contains all parts necessary to set up the unit. We also supply wear parts and consumables for the first approximately 500 experiments including 25 calibrations. The C 1.10 combustion chamber is equipped with the C 5010.5 large crucible holder and C 6 large quartz crucible.

Accessories: Food Industry Package, C 1.10 Combustion chamber, C 1.12 Combustion chamber, halogen resistant, C 1.50 Dot matrix printer, C 1.30 Venting station, C 1.1012 Organizer, C 1.101 Set of spare parts, C 1.103 Ignition wire, C 1.123 Ignition wire platinum, C 27 Calorimeter preparation set, C 29 Pressure gauge, oxygen, RC 2 basic, RC 2 control, C 21 Pelleting press, C 5010.8 Crucible holder small, C 5010.5 Crucible holder big, C 710.4 Cotton thread, cut to length, C 710.8 Cotton thread, C 4 Quartz dish, C 5 Set of VA combustion crucibles, C 6 Quartz crucible, big, C 710.2 Set of VA combustion crucibles, C 9 Gelatine capsules, C 10 Acetobutyrate capsules, C 12 Combustion bags 40 x 35 mm, C 12

#### Technical Data

Measuring range max. [J]	40000
Measuring mode static jacket 22°C	yes
Measuring mode static jacket 30°C	yes
Measurements/h static jacket	4
Reproducibility static jacke (1g benzoic acid NBS39i) [%RSD]	0.15
Working temperature [°C]	20 - 30
Temperature measurement resolution [K]	0.0001
Cooling medium temperature [°C]	18 - 29
Cooling medium permissible operating pressure [bar]	1.5
Cooling medium	tap water
Type of cooling	flow
Flow rate [l/h]	50 - 60
Rec. flow rate at 18°C [l/h]	55
Oxygen operating pressure max. [bar]	40
Interface scale	RS232
Interface printer	RS232
Interface PC	RS232
Oxygen filling	yes
Degasification	yes
Decomposition vessel integrated	yes
Analysis according to DIN 51900	yes
Analysis according to ISO 1928	yes
Dimensions (W x H x D) [mm]	290 x 280 x 300
Weight [kg]	15
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 20
RS 232 interface	yes
USB interface	yes
Voltage [V]	100 - 240
Frequency [Hz]	50/60
Power input [W]	120

**Ident. No. 0003825000**

A Combustion bags 70 x 35 mm, C 15 Paraffin strips, C 16 Parafilm, C 17 Paraffin,  
C 43 Benzoic acid NBS 39i, C 723 Benzoic acid, blister package, C 723 Benzoic  
acid BIG Package, AOD 1.11 Control standard, AOD 1.12 Control standard, C  
6000.1 Water protect, 100 ml