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C 1 Package 2/12

/// Data Sheet

The C 1 static jacket oxygen bomb calorimeter provides a high degree of automation and has 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 light and simply attachable combustion chamber allows an easy measurement preparation. 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 Calvin (accessory).

The C 1 calorimeter can only be operated together with a fitted cooling water supply unit. Therefore we recommend our



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C 1 Package 1/12 for best performance. It includes the chiller RC 2 basic and ensures best possible connectivity and function of the calorimeter.

The scope of delivery includes all parts necessary to set up the unit. Additionally it includes wear parts and consumables for the first approximately 500 experiments including 25 calibrations. The catalytic activated, halogen resistant combustion chamber C 1.12 is specifically designed for the combustion of samples that contain halogens and sulfur (> 3 %). It is equipped with the C 5010.5 large crucible holder and C 6 large quartz crucible.

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
Decomposition vessel, halogen resistant	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]	22.59
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