Photometers
Thermoreactors

CR 2200

CR 3200

CR 4200

- **Programs for routine tests**
- **Highest level of safety**
- **Temperature monitoring with separate sensor**

Thermoreactors for COD and all other thermal Digestion Processes

Thermoreactors are required for chemical digestion processes, such as for COD, total nitrogen or total phosphorus. They ensure that the digestion is carried out completely, as they maintain the necessary high reaction temperature throughout the whole of the defined period. In each of the thermoreactors from WTW the most important temperatures and digestion times are stored in 5, easily selectable digestion programs. In addition to these 5 fixed standard programs, CR 3200 and CR 4200 thermoreactors allow you to store 8 of your own user-defined programs. Suitable for 16 mm cuvettes.

Safety Precautions

All WTW thermoreactors optimize the heat transmission between the heating block and cuvettes as well as their superior safety. Apart from the built-in safety hood, which prevents chemicals from being splashed about should a cuvette break and the contact protection for the heating block surface, all reactors have timer functions. All reactors display when the reaction temperature is reached.

The right Instrument for the right Test!

CR 2200
is ideal for anyone who needs to perform routine water analysis tests with small sample amounts, as 5 programs are available for digestion of 12 sample cuvettes at 212, 248 and 298.4 °F (100, 120 and 148 °C).

CR 3200
In addition, you can program the CR 3200 to carry out 8 of your individual digestions at freely selectable temperatures up to 338 °F (170 °C).

CR 4200
is the right choice for anyone who needs to perform multiple tests simultaneously, such as COD (298.4 °F/148 °C) and total-N (248 °F/120 °C), as the two thermoblocks for 12 cuvettes each can be controlled separately. It also has memory for 8 of your own user-defined programs with free temperature selection up to 338 °F (170 °C).

Quality Assurance:

Quality assurance is constantly increasing in importance, even in the operational analysis sector. The CR 3200 and CR 4200 thermoreactors are both equipped with the external temperature sensor TFK CR (Order No. 250 100) as a testing aid. This temperature sensor can be plugged into the interface in place of a cuvette and the set and actual temperatures can be outputted either to a printer or a PC. This means that the function can not only be monitored, but also documented.

Application Areas and Technical Data

	CR 2200	CR 3200	CR 4200
Application Areas	Routine measurements, wastewater	Routine and specialized tasks in wastewater and in laboratories	Routine and specialized tasks in wastewater and in laboratoriesr
Number of samples, max.:	1 x12	2 x 12 same program	2 x 12, different programs
5 pre-stored programs:	212 °F (100 °C) 60 min, 248 °F (120 °C) with 30 min, 60 min, 120 min, 298.4 °F (148 °C) 120 min	212 °F (100 °C) 60 min, 248 °F (120 °C) with 30 min, 60 min, 120 min, 298.4 °F (148 °C) 120 min	212 °F (100 °C) 60 min, 248 °F (120 °C) with 30 min, 60 min, 120 min, 298.4 °F (148 °C) 120 min
Own programs	–	8 freely selectable 77-338 °F (25-170 °C)	8 freely selectable 77-338 °F (25-170 °C)
Control accuracy	±1 °C ±1 digit		
Safety class	I to DIN VDE 0700 part 1/11.90		
Instrument safety	EN 61010, UL 3101, CAN/CSA C22.2-1010; EN 61010-2-010, IEC-CAN/CSA C22.2-1010.2.010		
Dimensions	W: 10.08 in (256 mm); H: 7.28 in (185 mm), open: 11.42 in (290 mm); D: 12.4 in (315 mm)		

Ordering Information

Model		Order No.
CR 2200	Reactor (230 VAC with Europlug) for COD and other thermal digestions. For up to 12 reaction cuvettes.	1P21-1
CR 3200	Reactor (230 VAC with Europlug) for COD and other thermal digestions. For up to 2x12 reaction cuvettes.	1P22-1
CR 4200	Reactor (230 VAC with Europlug) for COD and other thermal digestions. For up to 2x12 reaction cuvettes in two separately controllable heating blocks.	1P23-1