# Cole-Parmer®

## Integrity 10 Reaction Station

- 10 individual cells in one unit
- Individual control of temperature and stirring rate for each cell
- Temperature range of -30 to 150 °C
- Stirring rate of 350 to 1200 rpm
- Cell working volume of 1 to 25 mL
- Optional attachments for refluxing and working under vacuum
- Automatic microprocessor control through a touchscreen
- 3-year warranty





### Integrity 10 Reaction Station

Integrity 10 reaction station's evolutionary design provides the advanced laboratory with a means for allowing the users to perform multiple reactions at individually set temperatures both in negative and positive temperature ranges simultaneously. Each cell position can be heated/cooled and stirred independently of the cell next to or close up to it. The versatility of the product means it can be used inside a fume hood, mounted onto a robotic platform, coupled together as multiple units for mass sampling, or simply operated free standing on a laboratory work surface.

Extreme temperature accuracy is guaranteed, with a temperature stability of  $\pm$  0.5 °C and a minimal set point overshoot of 0.5 °C. The temperature may be maintained either through the block itself or by using a probe within each cell's solution. This accuracy can be maintained over a wide temperature range of -30 to 150 °C, with precise, independently controlled temperature profiles. Homogeneous sample mixing may be assured with stirring rates from 350 to 1200 rpm using magnetic stirrers. If desired, fast heating and cooling rates can be selected, with temperature ramps between 0.1 °C/min to 5 °C/min. There is also a crash function for even faster temperature changes, which is ideal for kinetic determinations. With working volumes between 1 to 25 mL, the Integrity 10 is an excellent screening tool for most laboratories and can also be used to establish ideal process conditions.

Easily set up test parameters using the user-friendly touchscreen menu. Intuitive icons reduce potential for costly errors while preprogrammed profiles for routine measurements save you time. Store results with information such as reaction composition, experiment owner, concentration, and the name of the profile with data stamp. View the progress of the reaction within each cell on the large monitor. It can also display at-a-glance results graphically. Extensive storage capacity lets you capture and review data. Download data to a PC via a USB port or SD card. Order software 36630-92 for more in-depth analysis and evaluation.

Optional reflux/inerting head 36630-97 is ideal when you need to run parallel reactions for a long time, as is commonly required in organic chemistry experiments. Use with inerting caps to provide inert atmosphere to all ten cells. The integrated design eliminates the need to connect individual gas lines to each cell for a safer and effective solution.

#### **Specifications**

Model no.	Integrity 10	
Number of cell positions	10	
Cell cavity diameter	25.5 mm	
Glass vessel fill level	1 to 25 mL	
Temperature range	−30 to 150 °C*	
Temperature resolution	0.01 °C	
Temperature accuracy	±0.5 °C	
Temperature difference between 2 positions	180 °C	
Temperature overshoot (maximum)	0.1 °C	
Maximum heating/cooling rate	5 °C/min	
Temperature ramp rate	0.1 to 5 °C/min in 0.1 °C/min steps	
Stirrer speed range	350 to 1200 rpm	
Stirrer resolution	1 rpm	
Stirrer accuracy	±10 rpm	
Maximum viscosity capacity	Glycerine at 25 °C	
Control ports	USB, RS-232, RS-485, GSIOC	
Dimensions (W x H x D)	15.3 x 16.0 x 43.0 cm (6 x 6.3 x 16.9 in)	
Power	110/230 VAC, 50/60 Hz, 1500 W	
Warranty	3 years	

<sup>\*</sup>Chilled water supply is required to run the Integrity 10 station; we recommend using a recirculating chiller.

#### **Ordering Information**

Description	Item no.	Legacy SKU
Integrity 10 reaction station with power supply unit, cords (UK, US, EU), coolant supply hose, and SD card	36630-00	PS20001

#### Accessories

Description	Item no.	Legacy SKU
Integrity 10 software	36630-92	ATS11005
Reflux/inerting head	36630-97	ATS20100
Inerting cap for reflux/inerting head, SVL 22 thread. 10/pk	36630-94	ATS20002
Glass tubes, 24 x 150 mm, SVL 22 thread. 10/pk	36630-85	ATS10075
Inerting cap for reflux/inerting head, Kimble type. 10/pk	36630-95	ATS20003
Glass tubes, 24 x 150 mm, Kimble type. 10/pk	36630-96	ATS20004
Multi-temp 10 plug-in box	36630-80	ATS10001
Temperature probe. 6/pk	36630-81	ATS10027
Temperature probe. 10/pk	36630-82	ATS10027/10
Multi-IR plug-in box	36630-89	ATS10232E
Non-intrusive IR sensor	36630-90	ATS10360/1
Small intrusive IR probe in stainless steel PID-NIR5-BNSD	36630-88	ATS10230
Large intrusive IR/NIR probe	36630-91	ATS10394/1
Stirrer bars, 10 x 6 mm oval, for round-bottom tubes. 10/pk	36630-98	AZS4206
Stirrer bars, 12 x 4.5 mm, for flat-bottom tubes. 10/pk	36630-99	AZS4235
Small-volume test tubes, 1 mL, 24 to 11 mm taper. 10/pk	36630-87	ATS10209
Reducing sleeves for 1 mL test tubes. 10/pk	36630-86	ATS10101
Small-volume test tubes, 3 mL, 24 to 16 mm taper. 10/pk	36630-83	ATS10055
Reducing sleeves for 3 mL test tubes. 10/pk	36630-84	ATS10056

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