ITA Instruments
Innovative ThermoAnalytic Instruments

Incentive™
Parallel Reactor Station
Your compact multitasking talent.

**We customise
your equipment**

No space in your lab?

**Up to 10 independent reaction
positions in one instrument –
designed for small working areas.**

*For all Chemical Reaction such as Crystallization,
Solubility, Protein Crystallization, Petro Chemical
Industry, Food Industry, Pharmaceutical and
Life Science Environments*

No space in your lab?
Here's your compact multitasking talent.

You need the Incentive™ without doubt, the worlds most advanced Reaction Station specifically designed for small working areas in today's modern Laboratory.

With variable interchangeable reaction modules (Plug 'and' Play©) positions that can be used independently from one another.

Temperature selection can be set from -30°C to +160°C with interval setting of 0.1°C. Temperature profiles can be programmed upon your individual reaction requirements. Each position has individual stirring control with a stirring range from 200 to 2000rpm and an available new feature of a stirring profile (coming soon).

All settings are made via an intuitive touch screen menu. The touch screen is detachable for those wishing to place the 'Incentive' reaction station inside a fume hood or safety enclosure.

Further advanced features include 'in solution' temperature control, UV and IR measurement with the multifunctional new ITA Incentive™ Vision probe.

In addition the Incentive can be used with optional reflux, pressure and inert accessories.

The 'Incentive' via selectable modules is able to handle liquid volumes in a range of 1ml to 150ml. The Incentive™ is ideal for those wishing to retest initial findings on a larger scale, a notable feature that has never been previously possible.

Incentive™ Parallel Reactor

Incentive Parallel Reactor
Technical Sales Specification

Module Size and performance characteristics	
25mm Interchangeable with other modules of the same size or with either the 40mm or 58mm	Consists of heater/cooler block with diameter 25mm cavity, slave pcba, power/comms connector, heat exchanger, additional usb connector.
	Maximum fluid content Glass Dia 25mm = 10-12ml Minimum fluid content 1ml.
40mm Interchangeable with other modules of the same size or with either the 25mm or 58mm	Consists of heater/cooler block with diameter 40mm cavity, slave pcba, power/comms connector, heat exchanger, additional usb connector.
	Maximum fluid content Glass Dia 40mm = 80ml Minimum fluid content 2ml.
58mm Interchangeable with other modulesof the same size or with either the 25mm or 40mm	Consists of heater/cooler block with diameter 58mm cavity, slave pcba, power/comms connector, heat exchanger, additional usb connector.
	Maximum fluid content. Glass Dia 58mm = 100ml Minimum fluid content 3ml.

Temperature performances	
Temperature ranges (for block)	Dia 25mm cavity = -30 to +160°C. (V1) Dia 40mm cavity = -30 to +160°C. (V1) Dia 58mm cavity = -20 to +160°C. (V1) Dia 58mm cavity = -5 to 180°C. (V2)
Temperature Ramp rate	25mm = 0.1 to 5 in 0.1 steps °C/min 40mm = 0.1 to 5 in 0.1 steps °C/min 58mm = 0.1 to 5 in 0.1 steps °C/min Crash heat/cool (no control)
Temperature Overshoot	<1°C when measuring in contents.
Maximum controlled heating rate	5°C / min
Maximum controlled cooling rate	5°C / min
Temperature resolution on display screen	0.1°C
Temperature accuracy	Version 1 = ±0.5°C Depending on pt100 accuracy Version 2 = ±1.0°C
Measured external temperature range (optional in contents thermometer)	40 to +195°C

Chassis and control module, loaded with various cells.

The 'plug and play' system allows various modules to be used independently the same time.

New modules with various functions can be added at any time.

Power ratings (PSU)	
Type	Switch mode
Ratings	Input: 100 to 240 volts. Output: 15 volts. Output: 60 Amps
Enclosure	Separate from chassis module
Enclosure material	Grey plastic and stainless steel
Dimensions (PSU)	142 x 428 x 190 mm (L X W X H)
Power connector to chassis module	Flying lead from chassis into plug on PSU

Cell Stirring	
Stir speed range	200 - 2000rpm
Viscosity capacity	Glycerine at 25°C
Stir Speed Resolution	10 RPM
Stir Speed Accuracy	±10 RPM
Bi-directional stirring	Yes

Modules, 25mm, 40mm and 58mm.
Additional 'special' modules can be added when required/available.

Each module has unique Identification, informing Control of it's position in the chassis, and selection of the correct profiles etc.

General module information

Watchdogs	One shot thermal fuse. Motor fault. Heat exchanger over temperature. Peltier fault. Heater fault
Unique module ID	Yes
User Temperature offset configuration	Yes
Calorimetric	Yes (In conjunction with firmware - available in 2020)

Module Firmware

Temperature control	Reports block temperature to control. Receives commands from control.
Stirrer control	Reports speed to control. Receives commands from control.
Calibration	Factory calibration only required.
Calorimetric output	Data output

Module power consumption

Module Voltage	15V
Wattage Peltier (25mm cell)	36 Watts at 15V (1 off peltier 30 x 30mm)
Wattage Peltier (40mm cell)	72 Watts at 15V (2 off peltier 30 x 30mm)
Wattage Peltier (58mm cell)	72 Watts at 15V (2 off peltier 30 x 30mm)
Wattage heater (25mm cell)	60 Watts at 15V (1"x0.25")
Wattage heater (40mm cell)	120 Watts at 15V 2 off 60w heaters
Wattage heater (58mm cell)	120 Watts at 15V 2 off 60w heaters
Heater type	Resistive heating

Touch screen, graphics and interface	
Screen resolution	800 x 480 touch type capacitance
Operating system	Windows
Display features	Visible graph on the screen to be viewable for operational module position. (May have the option to switch between various operable module positions).
	The ability to overlay graphs from various modules.
	Graph to be self-scaling on both axis.
	Zoom facility for detail.
	Graph to show temperature (cell temperature and thermocouple temperature) with an indication of what the measurement method is.
	Graph to show stir speed (either cell stir speed or external stirrer) with an indication of stir method.
Profile setting	Facility to set individual profiles for each module.
	This profile is to have the facility to select the start temperature and dwell time at that temperature.
	A target temperature and ramp rate to the target temperature.
	A dwell time at the target temperature.
	A decrease/increase to second target temperature together with a dwell time before turning off the module.
	A facility for the user to loop the profile any given number of times.
	The facility to enter the stirrer speed for each part of the profile.
	An option to write up to 10 different profiles per module and link them to run one after the other.
	When used with a dosing pump the option to enter when and volume of dosing to be performed must be available.
	The facility to control volume of dosage via feedback from probes (IR and PH).
	The facility to recall a previously stored profile and reuse.
	The facility to import profiles generated via spread sheets.
	The facility to couple the unit to external control PC driven software.
	Profile "Copy and Paste" facility between one module and another.
	Bi-directional stirring.

Incentive setup	Facility to set time in dd/mm/yyyy and mm/dd/yyyy format. Auto Clock and time zone synchronisation when linked to PC.
	Auto recognition of PC driven software (facility to "self-set" according to host software).
	Auto recognition of module type. (Module position naming to be made simple). Different module types can be mixed and matched. The position number of a module must be set in order for the unit to communicate, knowing its talking to that module and not the module in a different position. So when a module is attached the facility to say that the last attached module is position "x" must be performed unless all other position are occupied and named.
	Auto recognition of accessories attached to any given module position. (Accessory position naming to be made simple). As above knowing the module position needs to be known.
	Facility to view module firmware and controller firmware versions.
	Facility to display run time.
	Audio signal, i.e. start profile, end profile, errors etc.
	Languages alternatives
Data Storage	The facility to "Store and name" the profile.
	Auto date and time stamp the profile name.
	Manual data fields include User name, Recipe, Composition, Concentration, Notes and any other filed as advised.
	Auto Fields include module position and module type, Accessories used, Profile settings.
	The facility to run an experiment "Name" it and store the graphical with the profile including data from accessories. E.g. dosing pump volumes and insertion times, overhead stir speeds and stir profiles etc.
	The facility to recall a saved profile using "Profile names" or "Date and time" stamp.
	Search by data field.
	The facility to recall saved experiment data by name, date stamp or user name.

ORDER NOW!

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