



atlas
automated
synthesis system

pH
pH monitoring
and control



Atlas simply does it all

What are the Atlas pH monitoring and control systems?

The Atlas pH Monitoring and Control Systems are for chemists who perform pH sensitive reactions. They allow the pH value to be monitored and logged throughout a reaction and the pH value to be controlled using the Atlas Syringe Pump by addition of an acid and/or base.

Atlas pH system benefits

- **Easy to use:** All parts click together without the need for tools - the pH and temperature node clips onto the support rods and is automatically detected by the Atlas base
- **Intelligent:** pH can be maintained by the addition of an acid and/or base without PC control
- **Automatic data logging:** All data including pH is shown on the base in real time and automatically logged to a .csv file
- **Powerful:** Parameters including temperature, stirrer speed and quantity of acid/base added can be controlled from the Atlas base
- **Wide temperature and pH range:** pH measurement up to 100°C and pH values 0-14 (note that the rest of the system is suitable for use from -80°C to +200°C)
- **Temperature compensation:** When the pH and temperature are monitored together, the pH is automatically temperature compensated
- **Quick:** With an easy to use vessel clamping system and integral oil drain unit, Atlas jacketed vessels can be changed in under a minute
- **Compact size:** Fits conveniently in a regular fume cupboard
- **Robust:** Specifically designed for use in chemical laboratories

Atlas pH and Temperature Node

The Atlas pH and Temperature Node forms a key part of both systems. A pH probe and temperature probe plug into the Node, which in turn plugs into the Atlas base. It can be used to measure pH, temperature or both and when used together, the pH is automatically temperature compensated. This allows pH and temperature values to be continually displayed on the base and logged to a .csv file.

The pH node can measure pH values from 0-14, has a 2 point user calibration and can read to better than 0.1pH accuracy, dependant upon calibration.



Atlas pH Monitoring System

Atlas is a family of high performance, low cost synthesis systems that are flexible and truly easy to use. The Atlas pH Monitoring System is based on the Atlas Potassium System for jacketed reactors and the temperature node is replaced by the pH and temperature Node and pH probe.

An Atlas pH Monitoring System contains:

Description	Part Number
Atlas Potassium (minus the Atlas Temperature node)	
pH and Temperature Node	2200071
pH Probe and Swivel Adaptor	2200029

Atlas pH Control System

The pH control system also includes an Atlas Syringe pump and can therefore be configured to control the pH of a reaction by adding either acid and/or base as necessary to maintain a set pH value. The Syringe Pump will automatically refill with both materials as they become exhausted.

An Atlas pH Control System contains:

Description	Part Number
Atlas Potassium (minus the Atlas Temperature node)	
Atlas Syringe Pump	2200072
pH and Temperature Node	2200071
pH Probe and Swivel Adaptor	2200029



Left: pH and temperature probes in reactor

Above: The Atlas pH and Temperature Node

Right: The Atlas pH Control System



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