



**Sciencetech 3005 PID Controller Test Bench** is a complete setup to control process through two point (on/off) and three point (PID) controllers. Temperature can be controlled through industrial PID controller. Sciencetech 3005 also gives the exposure to Industrial components like temperature sensor (thermocouple), PID controller and heater. Users can learn how to install, operate, program and set the instruments for controlling the processes.

### Features

- Industrial PID controller with RS485 communication facility.
- Thermocouple temperature sensor.
- Float switch for detection of water level .
- Temperature measurement and control.
- User friendly software.
- USB Interface.
- Heavy duty Test bench.
- Electrical control panel.
- Leak proof sturdy piping and tanks.
- SS Sump tank for inlet and outlet of water.
- Enhanced electrical safety considerations.
- Caster wheel (with locking mechanism) at the legs of Testbench for easy movement.

## Scope of Learning

### Study and use of-

- Temperature industrial PID controller as on/off controller
- Industrial PID controller as P (proportional controller)
- Industrial PID controller PI (proportional derivative controller)
- Industrial PID controller (proportional derivative interval controller)
- Auto tuning mode of industrial PID controller
- Level detection using float switch
- Thermocouple temperature sensor

## Technical Specifications

<b>Industrial PID controller</b>	:	1 no.
Input	:	Accuracy 0.2% FS
Sensor type	:	K type
Output	:	4 to 20mA, relay
Control algorithms	:	PID, P, PI, PD, On/Off
PID range	:	P : 0 to 200% I : 0 to 3600 Sec D : 0 to 900 Sec
Communication	:	RS485
<b>Thermocouple sensor</b>	:	1 no.
Type	:	K type
Wire	:	2 wire
Rod length	:	6"
Temperature range	:	-200 to 1250°C
Computer interface	:	USB
<b>Float switch</b>	:	1 no.
<b>Toggle switches</b>	:	3 nos. (pump, and heater)
<b>Sump tank (40 liter)</b>	:	1 no.
<b>Measuring tank (20 liter)</b>	:	1 no.
<b>Caster wheel</b>	:	4 nos. (2 with lock & 2 without lock)
Size	:	75mm
Power supply	:	230V AC