PID Controller & Process Control Trainer

Objective

1. Open loop response of various process configurations like Combination of time constants, delays etc.
2. Study of closed loop response for above. P, PI, PD and PID design and performance evaluation in each case.
3. Application of P/PI/PID controller to DC Servomotor speed/position control.

Features

Simulated Blocks

- Dead time (transportation lag)
- Integrator
- Time constant
- Error detector and gain

PID Controller

(Configuration as P, PI, PD or PID)

Proportional Band

- 5% to 50% (Gain 2-20)

Integral Time

- 10 msec – 100 msec

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

Derivative Time

- 2 – 200 msec

Built-In Signal Sources

Set Value

- -1V to +1V

Square Wave

- 1V p-p (min) at 40Hz

Triangular Wave

- 1V p-p (min) at 40Hz

Measurement Facility

Digital Voltmeter

- Built-in 3½ digit DVM for DC measurements

Interconnections

- All interconnections are made using 2 mm banana patch cords.
- Test points are provided to analyze signals at various points.
- All ICs are mounted on IC sockets.

Power Supply

- In-built power supply with Power ON indication.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.