

Measure & Control

Introduction

Control systems are used to monitor and control the operation of a process. They are used in a wide range of applications, from simple on/off control to complex multi-variable control.

The basic components of a control system are the sensor, the controller, and the actuator. The sensor measures the process variable and sends the signal to the controller. The controller compares the measured value with the setpoint and generates a control signal. The actuator then uses this signal to adjust the process.

Types

Control systems can be classified into several types based on their function and the way they operate. The most common types are:

- On/Off control
- Proportional control
- Integral control
- Derivative control
- PID control

Each type of control system has its own advantages and disadvantages. For example, on/off control is simple and easy to implement, but it can cause the process to oscillate. PID control, on the other hand, is more complex but it can provide better control performance.

Control System Components

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