CONTROL VALVE AND ACTUATOR TRAINER

PRS-20024

SCIENSCOPE
EDU-LABS

The training equipment are integrated with latest Industrial Revolution 4.0 (IR4.0) technology features.

Control valves are key components of process engineering systems. They act as an actuator and create a link between the controller and the system. Control valves are generally used for regulating flows of gases or liquids. Optimum control loop design depends on a sound knowledge of control valve behaviour as well as knowledge of the controlled system response is significant in Marine Engineering.

TECHNICAL SPECIFICATION

1. **PID CONTROLLER PANEL**
    a. Signal Generator: 4–20mA Output
    b. 24VDC Power Supply
    c. 4-20mA Input

2. **PNEUMATIC CONTROL VALVE MODULE**
    a. **Actuator**
        i. Type: Multi-spring diaphragm actuator
        ii. Action type: Direct action, reverse action
        iii. Diaphragm material: NBR rubber reinforcing polyester fabric
        iv. Spring range: 20~100KPa
        v. Supply pressure:0.4~0.5MPa
    b. **Pneumatic Control Valve**
        i. Type: Single Acting Pneumatic Valve
        ii. Output: 4-20mA

c. **Valve Body**
    i. Type: Single Seat
    ii. Nominal Diameter: DN15
    iii. Nominal Pressure: PN16
    iv. Connection: Flange
    v. Sealing Surface: PN16
    vi. Connection Size: 1/2"
    vii. Flange Material of Construction: Cast Iron (Body)
d. **Positioner**
    i. Electro-Pneumatic Type
    ii. Supply Pressure: 1.4-7kgf/cm2
    iii. 4-20mA Input signal
    iv. 4-20mA Output signal
    v. Air Filter
    vi. One Way Check Valve
    vii. Input Pressure Gauge
    viii. Control Pressure Gauge

3. PRESSURE TRANSMITTER MODULE

a. 18-36VDC Power Supply
b. 4-20mA Output
c. 0-1MPa

4. SILENT TYPE AIR COMPRESSOR (OPTIONAL)

a. Power: 550W
b. Speed: 1300RPM
c. Pressure: 8.8 Bar
d. Exhaust Volume: 60L/min

Note: Due to products continuous development process, layout and specification may change without prior notices.