



**INNOTEK**  
Innovative Technical Solutions

**PC-201**  
**Advanced**  
**Instrumentation**  
**and Process**  
**Control System**

# PC-201 Advanced Instrumentation & Process Control System

The Advanced Instrumentation and Process Control Training System provides students with hardware allowing for hands-on experiments in Pressure, Flow, Level and Temperature applications. The system's unique design allows rapid conversion between PFL&T experiments by adjusting the position of manual valves. All devices are pre-wired to terminal strips allowing for quick circuit modification. Activities include input and output loop wiring, transmitter setup and loop tuning of PID parameters. System is constructed completely of 1.5" extruded aluminum and ABS textured panels with six locking casters. Dimensions are 72"L x 78"H x 30"D and requires a 240 VAC supply but can be configured for 120 VAC.



## The System Shown Includes:

- Lockable Disconnect
- 20"W x 30"H x 10"D Enclosure
- Human Machine Interface (Ethernet)
- CompactLogix Controller (Ethernet)
- Honeywell UDC Controller
- 2-Analog 4-20mA Panel Meters
- 2-Digital Process Meters 4-20mA
- E-stop Circuit
- 2 - Start/Stop Buttons for Process Pumps
- 2 - Selector Switches for Heating and Cooling
- 4 - Powerflex 525 Drives (Ethernet)
- 4 - (3-Phase) Motor and Pump Units
- 2 - 6 Gallon Water Tanks
- Pneumatic Control Valve with 3-15 PSI Positioner
- Acrylic Level and Pressure Vessel
- Proximity Level Sensors for On/Off Control
- 0-6 GPM (4-20mA) Flow Transmitter
- 0-45 PSI (4-20mA) HART Capable Differential Pressure Transmitter
- Dual Input (4-20mA) Hart Capable Temperature Transmitter
- 0-30 Inch Programmable (4-20mA) Ultrasonic Level Transmitter
- Inline Refrigerated Water Chiller
- Inline Electric Cartridge Heater
- RTD Temperature Sensor
- Thermocouple Temperature Sensor
- Safety Temperature Sensors and Flow Switches

The system PID Parameters can be controlled via the CompactLogix or Honeywell controller. Both devices are user accessible from the front panel utilizing the controller pushbuttons, or the HMI. All connections for transmitters and controllers are terminated in the front on user accessible terminal blocks. Participants will make all loop connections at these blocks. No piping modifications are required as all piping is permanently installed. Manual valves are provided to allow users to modify the flow for specific activities. Heating and Cooling modes can be controlled individually and include safety flow switches and temperature control sensors.



# Contact Us

[www.intktrain.com](http://www.intktrain.com)



**INNOTEK**

Innovative Technical Solutions