

H-ICTS-1 Industrial Control Training System

General

The Hampden **Model H-ICTS-1** Industrial Control Training System is designed to teach basic process control instrumentation, utilizing both electronics and pneumatic applications.

Description

This system consists of five basic components:

- Bench
- Pneumatics Package
- Electronics Package
- Accessories Package
- Electronics Instrumentation Package.

The Bench consists of a workstation containing an electrical supply panel, an air supply panel, rails for mounting instrumentation modules, four storage drawers, two half-size storage cabinets, and one full-size storage cabinet having additional component rails. All drawers and cabinets have locks with individual keys and can be operated with a master key.

The electronic supply panel consists of one circuit breaker switch, one indicator light, three duplex receptacles, ground binding post, and one 8 ft. power cord. The air supply panel provides three sets of air regulators, gauges, and output fittings.

The *Pneumatics Package* consists of the following components:

- Model H-ICTS-PB** Temperature Transmitting Element Module
- Model H-ICTS-PC** Low Pressure Transmitter Module
- Model H-ICTS-PD** High Pressure Transmitter Module
- Model H-ICTS-PE** Chart Recorder Module
- Model H-ICTS-PF** Control Valve - Air-to-Close Module
- Model H-ICTS-PG** Control Valve - Air-to-Open Module
- Model H-ICTS-PH** Digital Thermometer
- Model H-ICTS-PI** Water U-Tube Manometer
- Model H-ICTS-PJ** Air Regulator Module
- Model H-ICTS-PK** Air Regulator Module



Model H-ICTS-1 Industrial Control Training System
Dimensions: 77"H x 70"W x 30"D, Shipping Weight: 1,026 lbs.

Model H-ICTS-PAS Accessory Set consists of union tees and 1/4" flexible tubing for interfacing the various pneumatic modules.

The *Electronics Package* consists of the following components:

- Model H-ICTS-EA** Voltage Regulator Module
- Model H-ICTS-EB** Electronic Controller Module
- Model H-ICTS-EC** Temperature Transmitter Module
- Model H-ICTS-ED** Computing Element Module
- Model H-ICTS-EE** E/P Transducer Module
- Model H-ICTS-EF** P/E Transducer Module
- Model H-ICTS-EAS** Accessory Set consists of an assortment of stacking cords for interfacing the various electronic modules.

The *Accessories Package* consists of the following components:

Model H-ICTS-AP Accessory Package consists of Spirit Filled Thermometers, Hot Plate, Stainless Steel Beakers, Stop Watch.

The *Electronics Instrumentation Package* consists of the following components:

Model H-ICTS-EIP Electronics Instrumentation Package consists of 5-ft. Roll of Type J (Iron-Constantan) Thermocouple Wire (used with **Model H-ICTS-EC** Temperature Transmitter), Digital Multimeter, Digital Function Generator, Dual Trace 20MHz Oscilloscope with probe set

Power Requirements

120VAC-1Ø-60Hz
220VAC-1Ø-50Hz

All Hampden units are available for operation at any voltage or frequency

Hampden
ENGINEERING CORPORATION