# **Industrial Control Training Systems**

Educational Training Equipment for the 21st Century

**Bulletin 254-5G** 

## GNR-H2200 Industrial Controls Training System

#### **Purpose**

The Hampden **Model GNR-H2200** Industrial Controls Training System provides students with practical "hands-on" experience in designing, wiring, checking out, and troubleshooting "real-world" motor control systems.

### **Description**

The Hampden Industrial Controls Training System consists of a ¾" thick melamine covered wood core panel, 36"H x 48"W, on which are mounted interchangeable unitized control modules. The student selects just the components needed for a particular system, secures them on the panel with wing nuts and wires them in accordance with the control diagram. All pushbuttons, contactors and other control components are suitably rated for use with 1HP motors.

#### **Module List**

**GNR-H2200A** Wood core white melamine work panel 36" x 48" x 3/4" complete with connector studs, wing nuts, and feet.

GNR-H2200BX Power Supply.

**GNR-H2200SP** Induction Motor with prony brake, 1/3 HP three phase complete with base.

**GNR-H2200G** Control Relay module 220VAC coil with two normally open and two normally closed contacts, and mounting panel.

**GNR-H2200X** Selector Switch with Pilot Light module consisting of two ½" pilot lights (one red, one green); one selector switch, three-position; one enclosure and mounting panel.

**GNR-H2200C** Magnetic Starter module three-pole complete with overload relay, overloads, auxiliary contacts, and mounting panel.

**GNR-H2200D** Control Station module start-stop with surface enclosure and mounting panel.

**GNR-H2200E** Control Station module start-reverse-stop with surface enclosure and mounting panel.

**GNR-H2200F** Control Transformer module 220/440 primary 120VAC secondary with fuse block, fuse, and mounting panel.

**GNR-H2200N** Manual Starter module three-phase with overloads and mounting panel.

**GNR-H2200R** Drum Switch module rated  $1\phi$ ,  $3\phi$ , and DC operation complete with mounting panel.

**GNR-H2200V** Programmable Timer with N.O. or N.C. contact. Provides 96 ON/OFF operations every 24 hours. Comes complete with mounting panel.

**GNR-H2200W** Off Delay Timer, 1-180 seconds with 120VAC coil and mounting panel.

**GNR-H2200U** Proximity Detector module with one N.O. and one N.C. contact complete with mounting panel.

**GNR-H2200T** Sequence Control Timer module with two N.O. or N.C. contact complete with mounting panel.

**GNR-22CS** Cord Set

GNR-H2200 Hampden Manual Set

HMB-4020 Mobile Bench with Locking Doors

NOTE: Unit comes with or without bench.

#### **Optional Modules**

**GNR-H2200H** Float switch module with two-pole H.D. switch and mounting panel.

**GNR-H2200J** Selector switch module consisting of one surface enclosure with one start-stop selector switch, one three-pole position switch and mounting panel.

**GNR-H2200L** Timer relay module complete with two terminal strips and mounting panel.

**GNR-H2200M** Pilot Light module consisting of two  $\frac{1}{2}$ " pilot lights (one red, one green), one surface enclosure, and mounting panel.

**GNR-H2200P** Magnetic Reversing Starter module three-pole complete with overload relay, overloads, and mounting panel.

**GNR-H2200Q** Limit Switch module with one N.O. and one N.C. contact and mounting panel.

GNR-H2200S Induction Motor 1/3HP three-phase complete with base.

**GNR-H2200VFD** Variable Frequency Drive module **GNR-H2200DCMC** Solid State DC Motor Controller

**GNR-H2200ML** Micro Logix 1000 PLC module, 10 AC inputs, 6 relay contact outputs **GNR-H2200G-2C** Same as GNR-2200G but includes an interchangeable 120 VAC coil



 ${\bf GNR\text{-}H2200C\text{-}2C}$  Same as GNR-H2200C, but includes an interchangeable 220 VAC coil

GNR-H2200LR Latching Relay

**GNR-H2200AR** Alternating Relay

GNR-H2200MX GE Pilot Light module

GNR-H2200ML-2 Micro Logix 1200 PLC module,

24 AC inputs, 16 relay contact outputs **GNR-H2200SPM** Single Phase Motor

GNR-H2200DCM Shunt Wound DC Motor

A typical complement of Hampden **Model GNR-H2200** modules would consist of:

- (1) GNR-H2200-A (1) GNR-H2200-BX (1) GNR-H2200-R
- (1) GNR-H2200-BX (1) GNR-H2200-SP
  - ) (1) GNR-H2200-V
- (1) GNR-H2200-G
- (1) GNR-H2200-W
- (1) GNR-H2200-X
- ) GNR-H2200-X
- (2) GNR-H2200-C
- (1) GNR-H2200-D
- (1) GNR-H2200-E (3) GNR-H2200-F
- (1) GNR-H2200-W
- (1) GNR-H2200-T
- (1) GNR-22CS
- (1) Manual Set
- (1) HMB-4020
- (1) HMB-4020



Dimensions (w/Bench): 76"H x 48"W x 29"D Shipping Weight: 500 lbs.

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



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