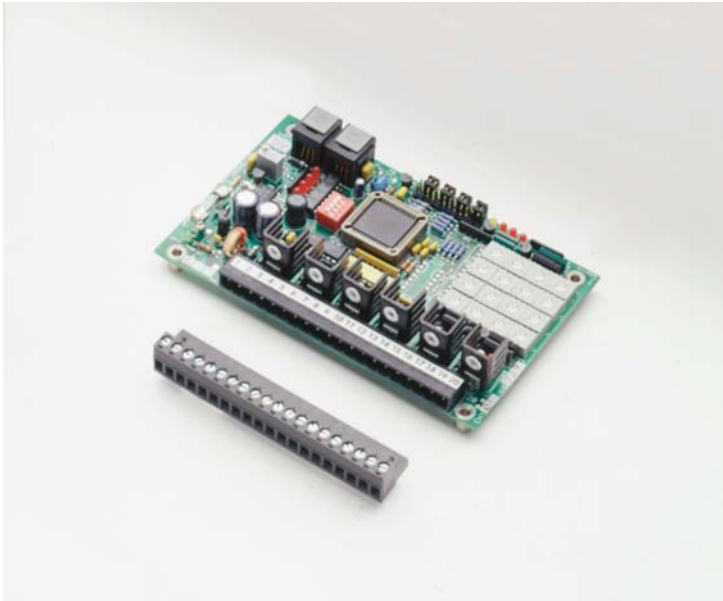## EH100 Controller

- ❑ **Custom applications**
  … *useful for OEM's that require special solutions*

- ❑ **Field programmable**
  … use a standard pocket screw driver to make adjustments

- ❑ **Electro-hydraulic drive**
  … PWM valve coil control for all popular brands

The EH100 is a compact and versatile electronic module that utilizes a micro-controller to achieve precise control of most electro-hydraulic proportional control valves. The EH100 offers the OEM designer an array of standard features with which to implement a semi-custom control system. The EH100 comes complete with digital inputs, analog inputs, Power Mosfet valve drive outputs, adjustment trimmers, de-pluggable screw terminal interface, status LED's and a port for a remote display.

The EH100 allows the OEM designer to use standard pre-programmed routines designed for electro-hydraulic control. The standard routines for your application are pre-loaded by the factory. Adjustment of individual variables is easily done by using the onboard trim adjustment pots or by using a handheld programming tool, RD202. Typical variables are; minimum or maximum valve flows for controlling speed, ramp up and down timers, PWM frequency, etc. Custom programs may have additional timers, counters, deadband, gains, etc.

Typical applications:
- ♦ Dual valve drivers, ie. up/down and left/right functions operated from a crossing joystick.
- ♦ Four single directional valve drivers, ie. variable speed control for conveyors, auger, pumps, etc.
- ♦ PLC interface for electro-hydraulic control.

The digital inputs handle most current or voltage devices, such as limit switches, pulse counters, photo-eyes, panel switches or command signals from a PLC. The valve drive outputs use adjustable pulse width modulated low-side power Mosfets with bulit-in inductive flyback protection. The analog inputs have an 8 bit resolution and work with voltage or current signals. Optional amplifiers for gain and offset adjustments to condition special sensor signals. The power input ranges from 10-32 vdc, and is reverse polarity protected. An adjustable voltage reference is available to drive auxiliary sensors and operators.
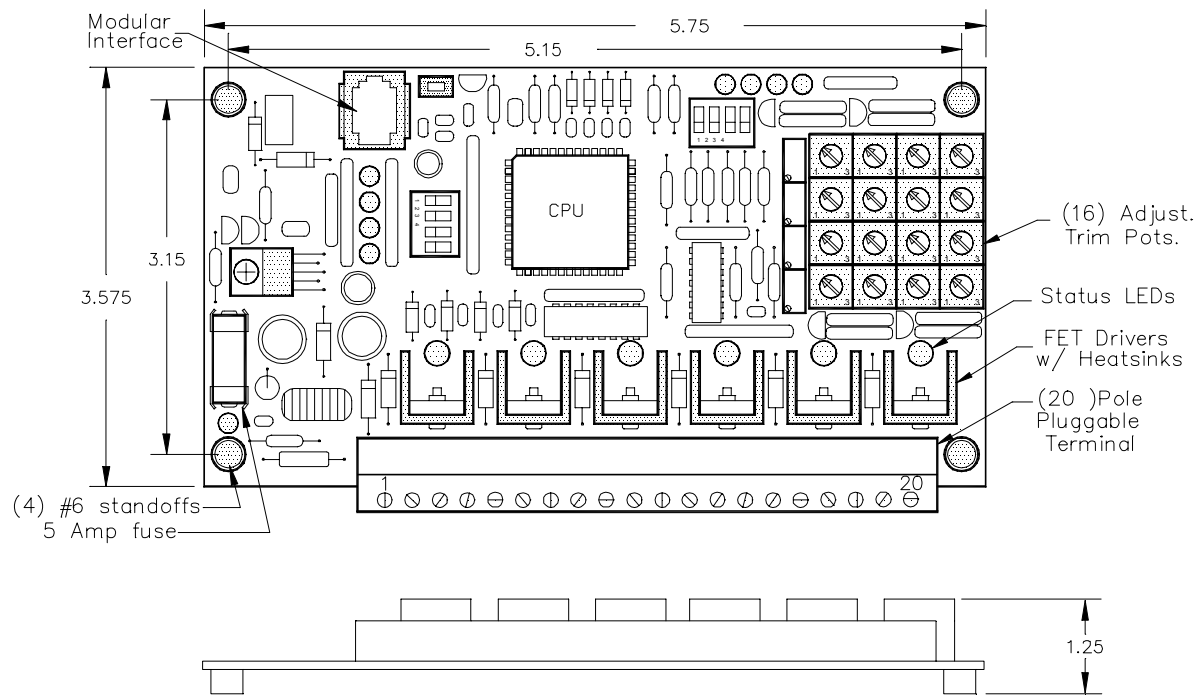
Specification:
- ♦ Power: 10vdc to 32vdc, 8 amp fuse, 5mm X 20mm
- ♦ Outputs: (4) PWM proportional drivers, 2 amp each, 10-32vdc, Power Mosfets w/ flyback diodes
  (2) Solenoid drivers, 2 amp each, 10-32vdc, Power Mosfets w/ flyback diodes
  (1) Adjustable voltage reference supply for external sensors and joysticks.
- ♦ Inputs: (4) Digital type (on/off), voltage switching, Cmos or current sinking, 10ma.
  (4) Analog, 0-5vdc, 0-10vdc, 4-20ma, +/-10vdc w/ scaling pre-amp, 8-bit conversion.
- ♦ Interface: (20) pole de-pluggable terminal, 16 to 22 ga. wire, All I/O have LED status indicators.
- ♦ Physicals: Open circuit card, , 3.25" x 5.25" x 1" panel mount (4) #6 screws.   **EH100E1C**
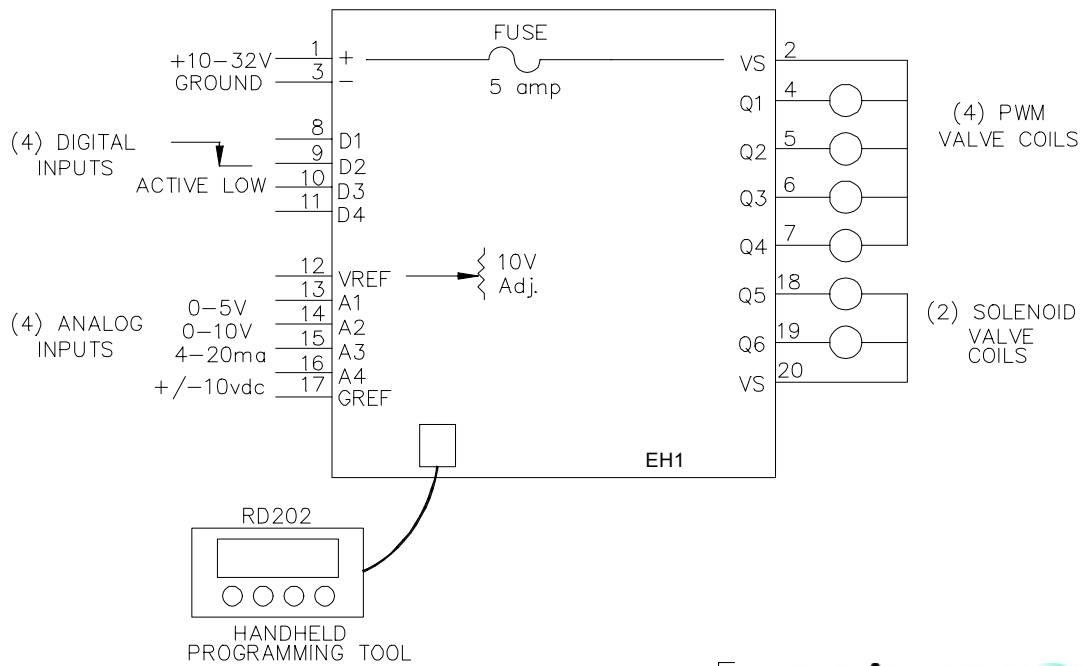
EH100

ALL DIMENSIONS ARE IN INCHES

Modular Interface

5.15

5.75

CPU

(16) Adjust. Trim Pots.

Status LEDs

FET Drivers w/ Heatsinks

(20) Pole Pluggable Terminal

3.575

3.15

1

20

(4) #6 standoffs

5 Amp fuse

1.25

ELECTRICAL

+10−32V — 1 | +
GROUND — 3 | −

FUSE

5 amp

VS — 2

Q1 — 4

Q2 — 5

Q3 — 6

Q4 — 7

(4) PWM VALVE COILS

(4) DIGITAL INPUTS

8 — D1
9 — D2
10 — D3
11 — D4

ACTIVE LOW

12 — VREF
13 — A1
14 — A2
15 — A3
16 — A4
17 — GREF

10V Adj.

(4) ANALOG INPUTS

0−5V
0−10V
4−20ma
+/−10vdc

Q5 — 18

Q6 — 19

VS — 20

(2) SOLENOID VALVE COILS

EH1

RD202

HANDHELD PROGRAMMING TOOL

DITC

106 EAST TITUS ST.
KENT, WA 98032
(253) 854−1002

EH100E1A