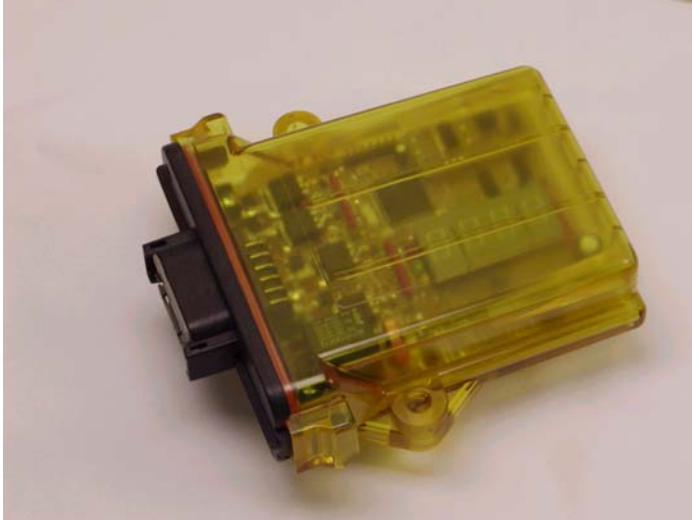


AL100 OEM Control Platform



- ❑ **Field programmable**
... installer interface allows for in-vehicle calibration, setup and diagnostics
- ❑ **Direct hydraulic drive**
... four PWM current controlled electro-hydraulic drivers
- ❑ **Flexible OEM platform**
... 10-32 vdc operation, analog / digital inputs, internal 2-axis accelerometer for angle control.

The AL100 is a versatile electro-hydraulic controller suited for mobile equipment OEMs. The design features are ideal for new applications. The AL100 offers four current controlled pulse width modulated outputs, ideal for driving proportional flow control valves. In addition, are four inputs that are software configured to be either digital or analog inputs. As a special feature the AL100 has an optional 2 axis accelerometer for angle or tilt sensing applications.

The AL100 has a see-thru housing for viewing four digits and three magnetic switches giving it a unique field interface. From the enclosure face the installer can select program features, enter settings, perform calibrations or diagnostic tests. Using a flash memory based micro-controller the AL100 can accommodate field upgrades using the handheld terminal, ref, DL100. The housing is environmentally sealed with an integral 12-pin connector, making it well suited for mobile vehicle applications.

Application topics:

- ◆ Two axis joystick control for manipulators, coordinated articulation or steering
- ◆ Speed control, master / slave, speed matching or ratio control
- ◆ Pressure or flow monitoring for control or alarm detection
- ◆ Closed / open loop control schemes for semi or fully automatic control
- ◆ Auto leveling, suspension control, two-axis angle sensing

General specifications:

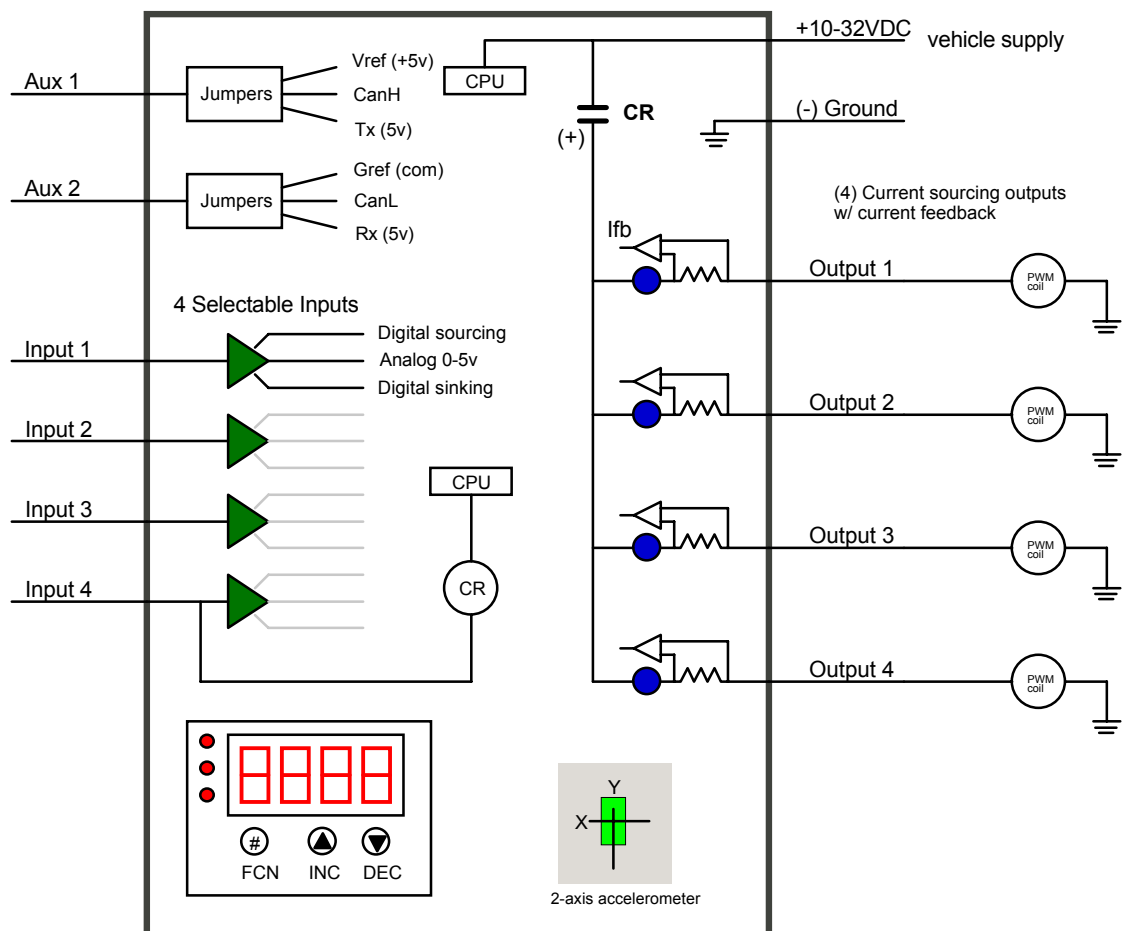
- ◆ 10-32 vdc, mobile vehicle power ready, transient and reverse polarity protected
- ◆ Operating temperature; -40 to +85 degC
- ◆ (4) PWM current controller sourcing outputs, 0-3500 ma ea., fuseless design
- ◆ (4) selectable analog/digital inputs, analog is 10bit, 0-5vdc, digital is sink or source typ.
- ◆ 5vdc reference voltage supply for external analog devices, joystick, pots., etc.
- ◆ Comm interface; 5v async 19.2Kbaud or CAN v2.0B
- ◆ Sealed enclosure with integral 12 pin connector, four-digit three PB program interface
- ◆ Optional internal dead man relay of joystick applications
- ◆ Optional 2-axis micro-machined 1.5g accelerometer

AL100 OEM Control Platform

General Block Diagram

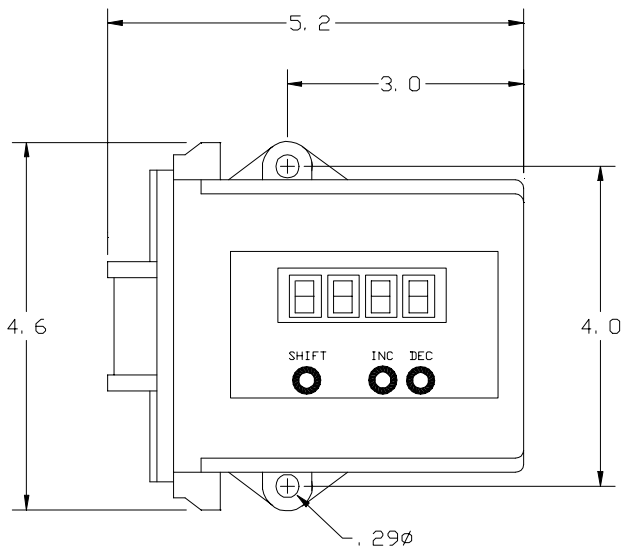
The basic hardware includes:

- 4-digit display w/ 3 pushbuttons and 3 single Led's. Display is viewable thru the translucent housing.
- Optional internal 2-axis accelerometer with two orthogonal arrangements.
- 4 PWM current controller sourcing power FETs, rated 2.5 amps each
- 4 inputs, software configurable; device sinking, sourcing, 0-5vdc analog/10bit, Input 4 relay option
- 2 auxiliary connections; select one
 - 1) Vref/Gref for analog reference, 100ma auto-reset
 - 2) CAN port ver 2.0B
 - 3) async. 5vdc TTL level, 19.2Kbaud, RS232 devices
- A main control relay provides output shutdown and reverse polarity protection. It has the option to be controlled by an external switch
- The AL100 offers field upgrades using the DL200 hand held terminal, (if CAN or Vref are not used)
- CPU, 20mhz, 32K flash memory, 10bit A/D



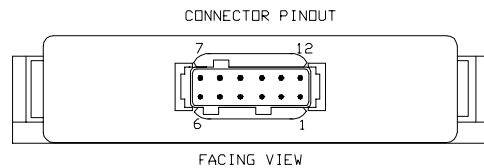
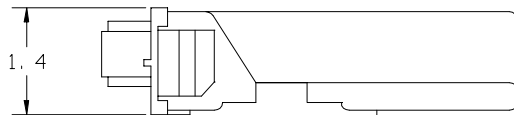
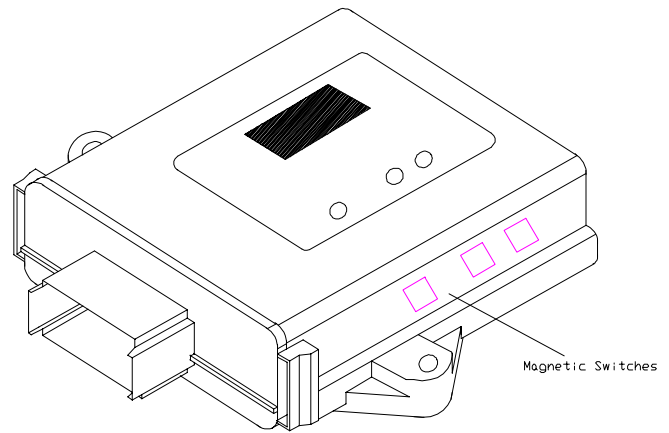
AL100 OEM Control Platform

Dimensional Drawing



ENCLOSURE FEATURES

- ENVIRONMENTALLY SEALED AGAINST MOISTURE
- NON-CORROSIVE, THERMOPLASTIC HOUSING
- SHOCK & VIBRATION RESISTANT
- CONNECTOR KEYING OPTION AVAILABLE
- BUILT IN OPERATOR INTERFACE
- 4 DIGIT DISPLAY, MAGNETIC SWITCHES



ALL DIMENSIONS IN INCHES