## Electro-Hydraulic Controls

## JS102 four axis joystick controller



- □ Application
  ... ideal for snow plow and dump body trucks
- □ Compact design ... easy to install, one simple enclosure. pre-wired
- □ Field programmable
  ... easy to use digital setup
  features
- □ Direct PWM drive ... no external valve driver cards required
- No maintenance
  ... fuseless design, no internal serviceable parts

The JS102 is a four axis programmable joystick controller with integral electro-hydraulic valve drivers. The joystick mechanism utilizes a non-contacting, *non-inductive*, solid state, fixed field magnetic flux sensor technology. The JS102 can drive four electro-proportional 4-way valves. These can be pulse width modulated coils or solenoid coils, with momentary or latching control.

The joystick lever travels in a crossing pattern creating mechanical isolation between the x and y axis. The lever includes a thumb push button so the operator has two live axes and two safe axes. Typically the plow controls are assigned to the live axes and the dump and gate use the pushbutton for safety. An optional handheld programming tool gives the installer a quick and easy method to make all valve drive settings. The installer can select different coil types, adjust the PWM frequency, add ramping, increase or decrease the hand lever deadband, inhibit over travel with external limit switches and other options.

The hand lever and electronic drive circuitry are fully enclosed into a single compact metal box with no internal adjustments or fuses. The JS102 automatically alerts the operator to open or short circuits in the valve circuitry. The JS102 mounts through a 1.5" diameter clearance hole and can be readily adapted to most any cab configuration. The wiring interface is accomplished with a sixteen-pin twist lock connector mounting out the bottom of the controller. Cable assemblies and mounting brackets are available through the factory.

## **General Specification:**

♦ Operating voltage: 10-32 VDC mobile vehicle electrical systems

♦ Coil drive Outputs: 100 ma to 2500 ma, PWM or solenoid (bang-bang) coils

♦ Hand lever: Spring return to center, stick handle w/ push-button, crossing cam

◆ Lever force: The hand lever is actuated with 1 lb. and the maximum over force is 15 lbs.

External inputs: Two digital inputs for reading current sourcing proximity sensors, relays, psi sw., etc.
 Alarm: Audible alarm (beeper), confirms functions and announces faults to the operator

♦ Wiring interface: AMP CPC twist-lock connector, (16) pin, gold pins

◆ Enclosure: 3.5" x 5" x 3" anodized aluminum enclosure, stainless fasteners

♦ Calibration: RD204 handheld programmer via DIN connector

