PVD3X2R

Proportional Valve Driver
Two PWM solenoid outputs, open board in DIN rail card holder

PWM
CONTROLS INC.

BENEFITS AND FEATURES

- Versatile digital design
- Large, easy-to-use adjustments and three-digit seven-segment LED display
- Wide range of supply voltage
- Electronic limiting circuit / short circuit proof
- Load can be connected & disconnected live
- Protected against wrong connection
- Energy-efficient PWM circuit, no heat sink is required
- Current sensing maintains output regardless of changes in supply voltage and coil resistance
- Simple control with analog input
- Can be used for one dual solenoid proportional valve
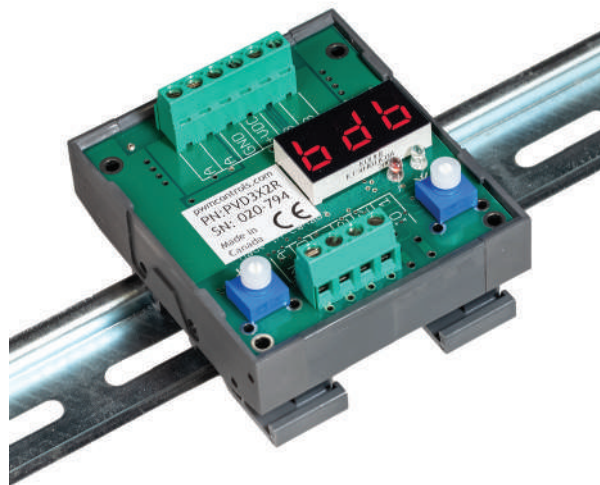
SPECIFICATIONS

- Operating voltage: 9 - 35VDC
- Maximum output current: 3A
- Ramp time: 0.0 to 99.5s
- Linearity: 0.5%
- PWM / Dither frequency: 50-500Hz
- Operating temperature: -40° to +75° Celsius
- Input signal: differential -10V to +10V
- Size: 3.50" x 2.75" x 2.00"
- Weight: 0.2lbs

This product fulfills the essential requirements of the EMC Directive 2004/108/EC: EN61000-6-1:2005, EN61000-6-3:2006

PWM Controls Inc.
185-911 Yates St, Victoria, BC V8V4Y9, Canada
Emergency Tech Support available 24/7

1

+1 866 719 2561
pwmcontrols.com
support@pwmcontrols.com

PVD3X2R

Proportional Valve Driver
Two PWM solenoid outputs, open board in DIN rail card holder

PWM

CONTROLS INC.

SETTINGS AND RANGE

AH1	A high, output current corresponding to +10V input, 0.00 to 3.00 A	
AJ9	A jog, output current manual override, 0.00 to 3.00 A	
ALO	A low, output current corresponding to 0V input, 0.00 to 3.00 A	
AUP	A ramp up, time required for the output to increase from ALO to AH1, 0.00 to 99.5 s	
Adn	A ramp down, time required for the output to decrease from AH1 to ALO, 0.00 to 99.5 s	
Adb	A deadband, output is disabled when signal is less than this setting, in %	
bH1	B high, output current corresponding to −10V input, 0.00 to 3.00 A	
bJ9	B jog, output current manual override, 0.00 to 3.00 A	
bLO	B low, output current corresponding to 0V input, 0.00 to 3.00 A	
bUP	B ramp up, time required for the output to increase from bLO to bH1, 00.0 to 99.5 s	
bdn	B ramp down, time req'd for the output to decrease from bH1 to bLO, 00.0 to 99.5 s	
bdb	B deadband, output is disabled when signal is less than this setting, in %	
dF	Dither frequency, 050 to 500 Hz	
di	Display orientation, normal or up-side-down	
SA	Save settings	

SETUP PROCEDURE

At power up, you may rotate the left side control # to read the command input signal in V or the actual solenoid output current directly in Amps: in (input) or ot (output). The red LED signals negative input / solenoid B active, the green LED signals positive input / solenoid A active. To enter setup mode, rotate right side control ✳ ; the display will show the settings sequentially: AH1, AJ9, ALO, AUP, Adn, Adb, bH1, bJ9, bLO, bUP, bdn, bdb, dF, di and SA. When you reach the setting that you want to modify, rotate # up or down to the desired value. To modify another setting, rotate ✳ and repeat. The Driver is fully functional during the set-up procedure with any adjustments effective immediately (except the input range selection that becomes effective only after saving). In order to write the new settings in the memory and return to normal mode of operation, rotate ✳ until the display shows SA and then rotate # one full turn. If you do not want to keep the new settings, simply power down without saving.

PVD3X2R

Proportional Valve Driver
Two PWM solenoid outputs, open board in DIN rail card holder

PWM
CONTROLS INC.

WIRING DIAGRAM

With signal from Analogue Card/PLC:
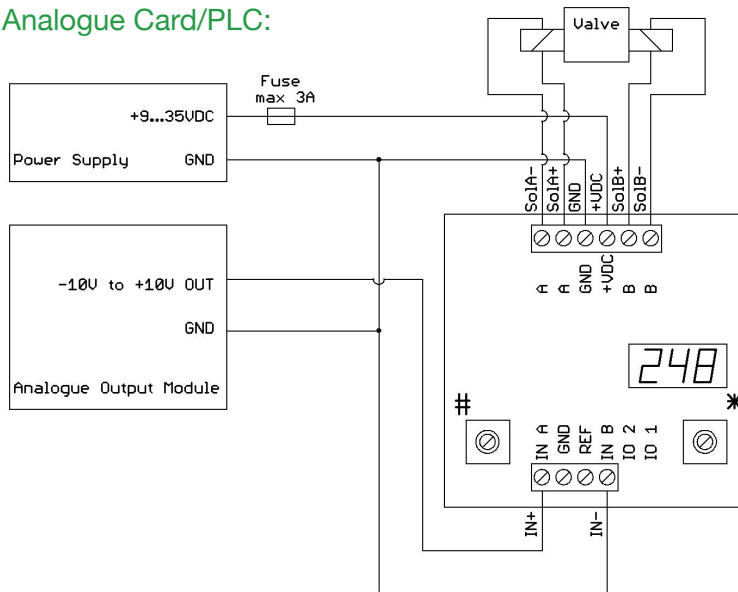
With signal from potentiometer/joystick:
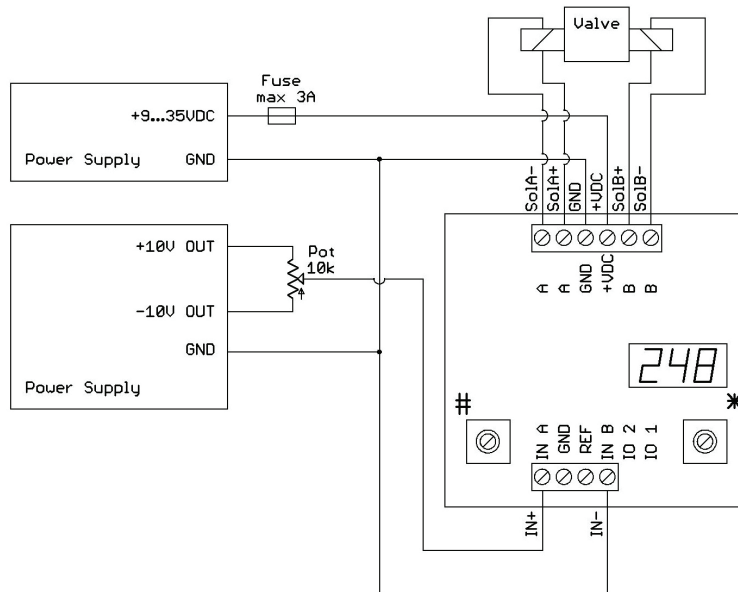
PWM Controls Inc.
185-911 Yates St, Victoria, BC V8V4Y9, Canada
Emergency Tech Support available 24/7

3

+1 866 719 2561
pwmcontrols.com
support@pwmcontrols.com

PVD3X2R

Proportional Valve Driver
Two PWM solenoid outputs, open board in DIN rail card holder

PWM

CONTROLS INC.

FUNCTIONAL DIAGRAM:

Dual solenoid proportional valve:

PWM Controls Inc.
185-911 Yates St, Victoria, BC V8V4Y9, Canada
Emergency Tech Support available 24/7

4

+1 866 719 2561
pwmcontrols.com
support@pwmcontrols.com