



# PC11 Operating Guide

## Panel-mounted proportional valve driver for hall effect sensors



### Care and Handling

Failure to follow care and handling instructions will void the warranty and could result in unsafe equipment operation.

Remove unit from machine prior to welding on machine.

Do not paint electrical connectors.

Do not open receiver enclosure except to make adjustments to factory settings.

Use transmitter to test functions. Do not apply voltage to circuit board directly.

### **IMPORTANT!**

Read this manual completely before operating system.

Keep this manual available for future reference.

Make sure the area is safe for operating equipment before turning power on or starting equipment.

If you encounter any problem or malfunction, discontinue use immediately, and contact your equipment dealer for service or replacement parts.

### **CAUTION**

Improper operation of these controls could cause damage to equipment. Do not allow anyone to operate this equipment before completely reading all manuals.

### **NOTICE**

Miratron, Inc. controls are not intended for life or safety applications. Miratron, Inc. shall not accept responsibility for installation, application, or safety of machine or systems which utilize miratron, Inc. controls.

## OPERATION

### SINGLE-COIL OPERATION

*Set single coil mode:*

1. Adjust knob fully CCW (SIG to GND).
2. Press and hold both buttons for 3-seconds.

*Set min/max output:*

1. Press LO/HI button. LED will blink.
2. Adjust knob to desired minimum output.
3. Press LO/HI button. LED will double-blink.
4. Adjust knob to desired maximum output.
5. Press LO/HI button. LED will light solid.

*Set ramp up/down time:*

1. Adjust knob fully CCW (SIG to GND).
2. Press UP/DN button. LED will blink. Note: For NO ramping, press UP/DN button two more times and skip next steps to complete setup
3. Turn knob fully CW at the desired ramp up rate.  
LED will double blink when knob is fully CW.
4. Turn knob fully CCW at the desired ramp down rate.  
LED will go out when knob is fully CCW.

### DUAL-COIL OPERATION

*Set dual coil mode:*

1. Adjust knob fully CW (SIG to +5V).
2. Press and hold both buttons for 3-seconds.

*Set min/max output:*

1. Press LO/HI button. LED will blink.
2. Adjust knob to desired OUT 1 minimum output.
3. Press LO/HI button. LED will double-blink.
4. Adjust knob to desired OUT 1 maximum output.
5. Press LO/HI button. LED will blink.
6. Adjust knob to desired OUT 2 minimum output.
7. Press LO/HI button. LED will double-blink.
8. Adjust knob to desired OUT 2 maximum output.
9. Press LO/HI button.

*Set ramp up/down time:*

1. Adjust knob fully CCW.
2. Press UP/DN button. LED will blink. Note: For NO ramping, press UP/DN button two more times and skip next steps to complete setup.
3. Turn knob fully CW at the desired OUT 1 ramp up rate.  
LED will double blink when knob is fully CW.
4. Turn knob fully CCW at the desired OUT 1 ramp down rate.  
LED will blink when knob is fully CCW.
5. Turn knob fully CW at the desired OUT 2 ramp up rate.  
LED will double blink when knob is fully CW.
6. Turn knob fully CCW at the desired OUT 2 ramp down rate.

SPECIFICATIONS

General  
Outputs

|                                |                                                          |
|--------------------------------|----------------------------------------------------------|
| Power requirement              | 9-30vdc, 50mA nominal + power to loads                   |
| PWM Frequency                  | 200Hz                                                    |
| Dither                         | Fixed                                                    |
| PWM current                    | 0 to supply voltage, 5-amps max                          |
| Ratiometric (PC20-PVG version) | 20% to 80% supply voltage; 50% neutral                   |
| Adjustments                    | Min/Max: 0 to V+<br>Ramp up/down: Timed, up to 5 seconds |
| Deadband                       | Built-in 10 degree deadband around neutral position      |

Input

|                |                    |
|----------------|--------------------|
| Potentiometric | See wiring diagram |
|----------------|--------------------|

Dimensions

|         |                                            |
|---------|--------------------------------------------|
| Overall | 3.0" L x 1.6"W x 1" H (behind panel depth) |
|---------|--------------------------------------------|

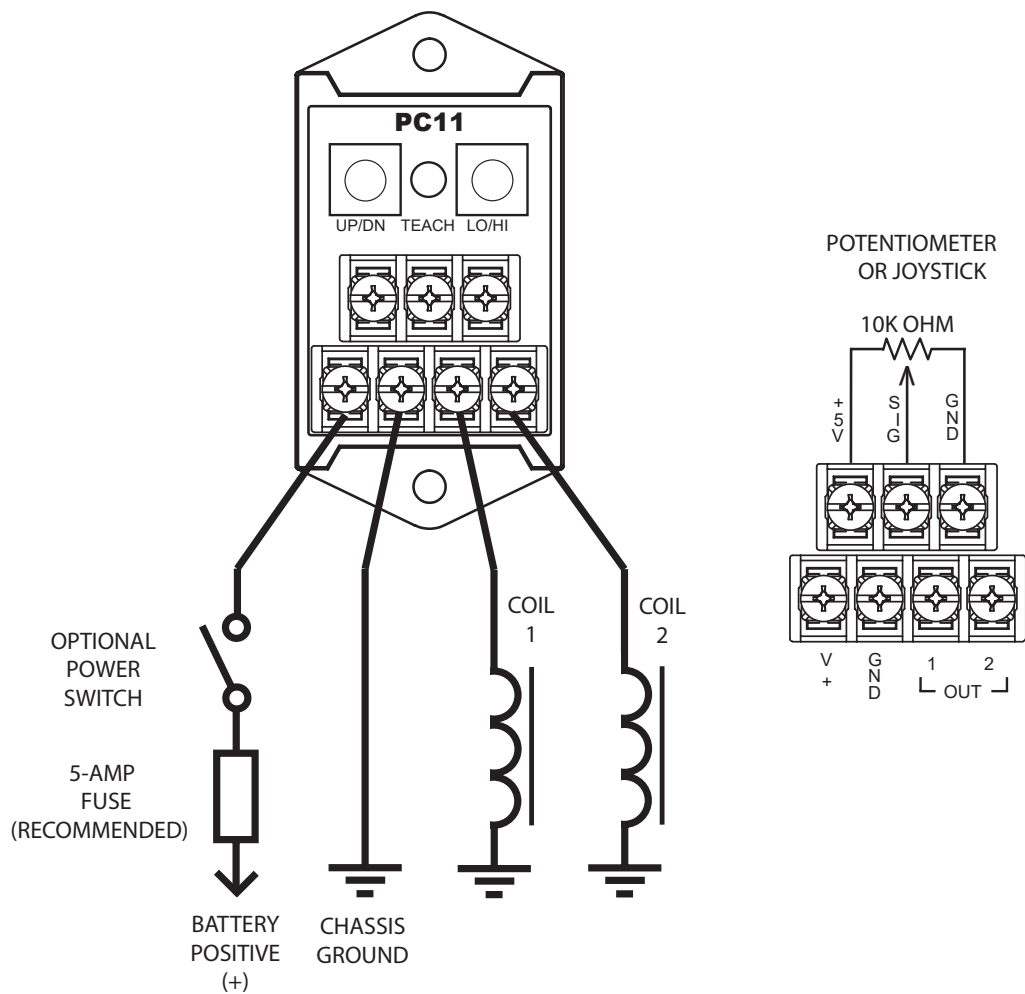
|          |                                 |
|----------|---------------------------------|
| Mounting | 2 x #8-32 X 1/2" machine screws |
|----------|---------------------------------|

Environmental

|         |               |
|---------|---------------|
| Storage | -40°C to 85°C |
|---------|---------------|

|           |               |
|-----------|---------------|
| Operating | -10°C to 60°C |
|-----------|---------------|

WIRING



|        | OUT 1                                         | OUT 2                                               |
|--------|-----------------------------------------------|-----------------------------------------------------|
| SINGLE | Proportional output - Clockwise from neutral. | Not used.                                           |
| DUAL   | Proportional output - Clockwise from center.  | Proportional output - Counterclockwise from center. |