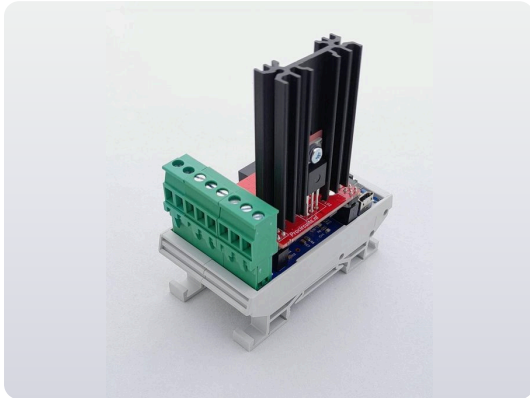


Potentiometer to PWM signal conditioner, low-side switched, with display

Article number PR181-X083



The PR181-X083 converts the position of a potentiometer into a low-side switched PWM output of up to 4 A. Lower and upper limits of input and output are set independently on the display, as are the rise and fall rate, the PWM frequency (3 Hz to 50 kHz) and the dimming curve. As delivered, the module gives 0 % duty cycle with the potentiometer fully anticlockwise and 100 % fully clockwise.

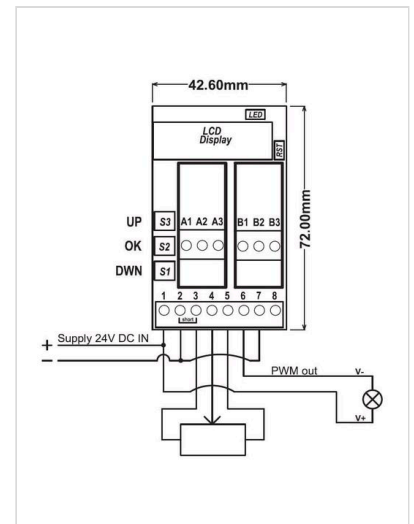
Price on request. Lead time on request. Not in stock? We will make it.

Specifications

Supply	9 to 30 V DC
Input	Potentiometer on terminals 3, 4 and 5
Output	PWM, low-side switched, on terminal 6; 0 to 100 % duty cycle, lower and upper limit adjustable
Isolation	Not isolated: the potentiometer minus (terminal 3) is internally connected to the supply minus (terminal 2)
Setup	Display with UP, OK and DOWN buttons
Output current	4 A max.
PWM frequency	3 Hz to 50 kHz, adjustable
Rise and fall rate	Adjustable on the display
Ambient temperature	-25 to 55 °C, non-condensing
Dimensions	45 x 83 mm with DIN rail enclosure, 42.6 x 72 mm without
Factory setting	Potentiometer fully anticlockwise = 0 % duty cycle, fully clockwise = 100 %

Connections

Terminal 1	Supply plus and lamp plus
Terminal 2	Supply minus; connect externally to terminal 7
Terminal 3	Potentiometer minus, internally connected to terminal 2
Terminal 4	Potentiometer signal (wiper)
Terminal 5	Potentiometer plus
Terminal 6	PWM output, to the lamp minus
Terminal 7	Supply minus; link to terminal 2 with a short wire
Terminal 8	Not used



Setup

1. Link terminal 2 to terminal 7 with a short wire rated for the maximum output current.
2. Connect the rest of the module according to the terminal table and switch on the supply.
3. Set the potentiometer to its lowest position, for example fully anticlockwise. In the menu, select IN1 – Set minimum, press OK, select YES and press OK again.
4. Set the potentiometer to its highest position, for example fully clockwise. Select IN1 – Set maximum, press OK, select YES and press OK again.
5. Set the lower limit of the output with OUT1 minimum adj: change the value with UP and DOWN and confirm with OK. The value runs from 0 (0 % duty cycle) to 4095 (100 %).
6. Set the upper limit of the output in the same way with OUT1 maximum adj.
7. Set the dimming curve with Output mode: 0 for incandescent lamps, motors and hydraulics, 0.1 for most LED lighting.
8. Other menu items: IN1 Ramp-Up and IN1 Ramp-Down set the rise and fall rate of the output, PWM Freq the output frequency, IN1 minimum adj and IN1 maximum adj fine-tune the input limits, and setting OUT1 invert to 1 reverses the output.
9. Go to the SAVE menu to store the new settings.

More information, price and lead time: www.procircuits.nl/en/products/pr181-x083

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