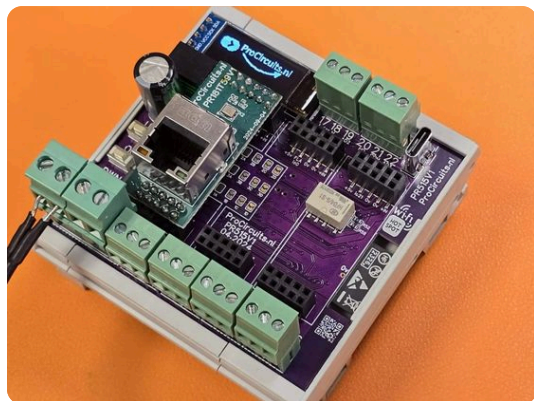


0-10 V PID controller with OLED display

Article number PR515x006



The PR515x006 controls a process to a set point: set point and feedback come in as 0-10 V and the output is 0-10 V. The P, I and D values, the minimum and maximum output swing and the update interval are set on the OLED display, without a computer. The same display shows set point, feedback and output. All analogue signals share the supply minus; isolated inputs or outputs are available on request.

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

Specifications

Supply	12 and 24 V DC, operating range 11 to 30 V DC
Input	Set point 0-10 V DC on terminal 19, feedback 0-10 V DC on terminal 12
Output	0-10 V DC on terminal 13; minimum and maximum swing adjustable
Isolation	Not isolated: all analogue signals share the supply minus (terminal 2); isolated inputs or outputs on request
Setup	OLED display on the module, without a computer
Control	P, I and D values and update interval (in ms) adjustable

Connections

Terminal 1	Supply plus, 11 to 30 V DC
Terminal 2	Supply minus, also common minus for the analogue signals
Terminal 12	0-10 V feedback (plus)
Terminal 13	0-10 V output (plus)
Terminal 19	0-10 V set point (plus)

Setup

1. Connect the supply to terminals 1 and 2, the set point to terminal 19, the feedback to terminal 12 and the output to terminal 13. Terminal 2 is the minus for all signals.
2. On the OLED display, set the minimum and maximum output swing and the update interval in milliseconds.
3. Set the I and D values to zero and increase the P value until the system starts to oscillate around the set point; then use a lower P value.
4. Slowly increase the I value until the steady-state error disappears, without much overshoot. If required, add a small D value to damp oscillations.
5. Change one value at a time and test the result under real operating conditions.

More information, price and lead time: www.procircuits.nl/en/products/pr515x006

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