

# Fluidea

*...we know how!*



## PROPORTIONAL SOLENOID VALVE BLUETOOTH CVP-BT

25.10



### General features

Miniaturized electronic controller encapsulated with DIN 43650 - ISO 4400 connectors for open-loop control of proportional solenoid valves.

Via the Bluetooth interface, it's possible to set the control parameters that define the operating modes of the controller. Adjustment through an Android or iOS app allows for the setting of minimum and maximum current, rise and fall ramps, dither amplitude, and the operating range of the input signal.

The controller includes protection against reverse polarity of the power supply and coil short-circuit.

It is equipped with power and status LEDs.

Applications:

Control via Potentiometer:

Connect one end of the potentiometer to Pin GND and the other to Pin 2. Connect the output pin of the potentiometer to Pin 3. Set the potentiometer to the maximum and perform the controller adjustment as described later.

The use of potentiometers with a resistance of 5 kOhm is recommended. The resistance should be between 2 kOhm and 10 kOhm.

Control via Joystick with Center Zero:

This control setup is achieved using a single-axis joystick and two CVP-BH units. The hydraulic zero of the joystick has a reference voltage of 5V on PIN 3. Both CVP-BHs share a common GND and PIN 3.

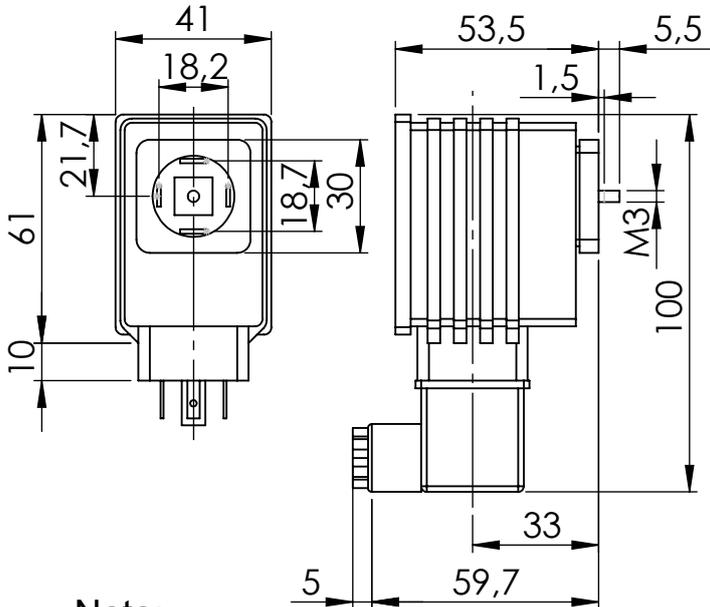
Through the app, set the first unit to 5–10V operation (Mode 4, dual mode) and the second to 5–0V (Mode 3, dual mode).

The current and ramp settings of the two controllers are always independent.

### Technical features

Input voltage	12÷30 VDC
Rippled voltage filtered and rectified	10%
Output current (adjustable)	2600 mA
Maximum current absorption without load	35 mA
Offset current (minimum and maximum adjustable)	0÷1000 mA
Dither frequency	125 Hz
Dither current amplitude	0÷20% I <sub>max</sub>
Ramp speed rise/fall (adjustable)	10 mA/s ÷ 40A/s
Current stability within temperature range	2%
LED indicator of power and status	Si
Bluetooth	Si
Operating temperature range	-20÷70 °C
Protection degree	IP65
Weight	80 g

### Overall dimension



Note:

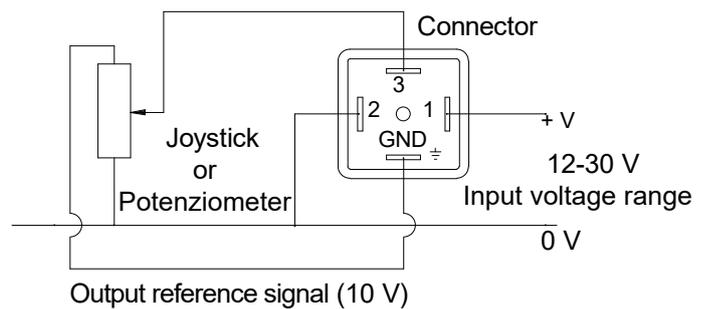
### Electrical connections

- Pin 1: +V Battery
- Pin 2: -V Battery
- Pin 3: Input control signal
- Pin GND: Ground control signal

External controller:

Joystick or Potentiometer

Input reference signal (0÷10 V)



The power supply must be between 12 and 30 V DC. A rectified and filtered current supply is required. It is recommended to use a 4700  $\mu$ F filtering capacitor. The controller is suitable for driving 12 VDC or 24 VDC solenoid valves. To ensure the solenoid valve operates at its maximum rated current, the controller's supply voltage must be at least 1.5 V higher than the valve's rated voltage.

### Application examples



Compact wheel loaders



Loading crane for scrap shear press



Tracked minidumper



Forestry machines

## THE COMPREHENSIVE RANGE OF COMPONENTS MANUFACTURED AND MARKETED INCLUDES:

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- Directional control valves and selector valves
- Proportional pressure reducing valves
- Hydraulic, pneumatic and electric joysticks
- Control electronics
- Radio controls, push buttons stations, dashboards and armrests
- Multifunction ergonomics and cylindrical grips
- Electro-hydraulics pilot blocks
- Hydraulic filters and contamination control
- Heat exchangers and cooling systems
- Fluid monitoring and diagnostics instruments
- Bell housings, driving flanges & elastic couplings

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