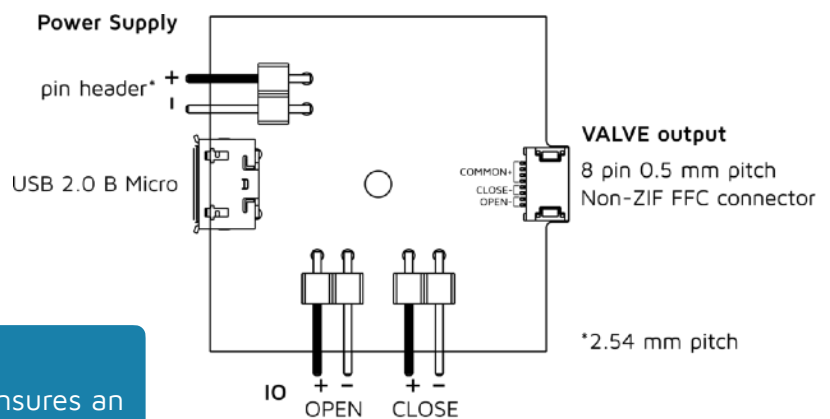
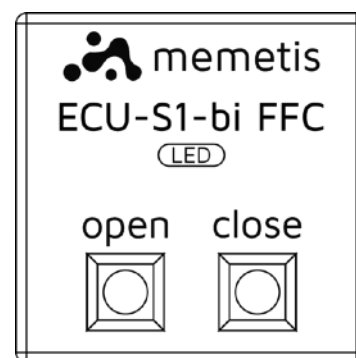


# Electronic Control Unit *Small*



The small electronic control unit (ECU-S1) ensures an easy start with memetis products by providing a constant output current specifically tailored to the respective memetis product.

The ECU-S1-bi FFC is specifically developed for the control of one memetis bistable Microvalve MVL-22-BI-08-12P-PEEK-SIL. It can be powered from USB B Micro or an external power supply, and has a wide input voltage range of 4.5 - 24 V.



## Contact Information

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 Email: [support@memetis.com](mailto:support@memetis.com)

### Specifications

Model ID	ECU-S1-bi FFC
Power supply	<ul style="list-style-type: none"> <li>• 4.5 - 24 V DC, USB 2.0 Micro B Socket <b>OR</b></li> <li>• 2.54 mm pin header, direct internal connection</li> </ul> <b>Attention: do not use both at the same time.</b>
Max. power supply current (standby)	< 1.0 mA @ 4.5 - 24 V
Max. power supply current (output active)	Connected to memetis bistable valve, 185 mA for 0.5 s @ 5 V, 90 mA for 0.5 s @ 12 V, 85 mA for 0.5 s @ 24 V, hardware rev. 1.0
VALVE output	800 mA constant current source, automatic switch-off after 500 ms, 8 pin 0.5 mm pitch Non-ZIF FFC connector
IO OPEN input	0 - 20 V non-isolated digital input, 10 kΩ pull-down, rising edge enables OPEN actuator on VALVE output for 500 ms, falling edge disables OPEN output immediately, 2.54 mm pin header
IO CLOSE input	0 - 20 V non-isolated digital input, 10 kΩ pull-down, rising edge enables CLOSE actuator on VALVE output for 500 ms, falling edge disables CLOSE output immediately, 2.54 mm pin header
IO input threshold	LOW < 1 V, HIGH > 2.5 V
OPEN push button	Pressing once enables OPEN actuator on VALVE output for 500 ms
CLOSE push button	Pressing once enables CLOSE actuator on VALVE output for 500 ms
LED	Off when VALVE output is disabled, permanently on when VALVE output is active and output current in regulation, flashing when output current error detected
Temperature range	-20 °C - 60 °C
Dimensions	32 x 32 x 9.5 mm <sup>3</sup>

### Customized Electronic Solutions

Couldn't find what you were looking for? Or would you like a customised solution? memetis also develops customised electronic solutions, including the control of other components such as pumps and sensors to control complete modules. Just get in touch with us - we will be happy to support you!



**Further Information about Electronics**

Would you like to develop your own electronics? On this page you will find all electronics-related information on the operation of our valves - from initial product testing through to the sophisticated electronic integration of complex fluidic logics:

**Electronic support website**

**More memetis Products**

Normally closed Microvalves	Ultra-compact, low-power consuming and silent microvalves
Chip Actuators	Strong, linear actuators designed for mechanical cartridge actuation
Fluidic Valve Adapters	Direct tube connectors or threaded adapters with third-party fittings
ECU-P2	Programmable two channel electronic control unit

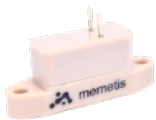


Figure 3: All products are available from the memetis online shop at [shop.memetis.com](http://shop.memetis.com)

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