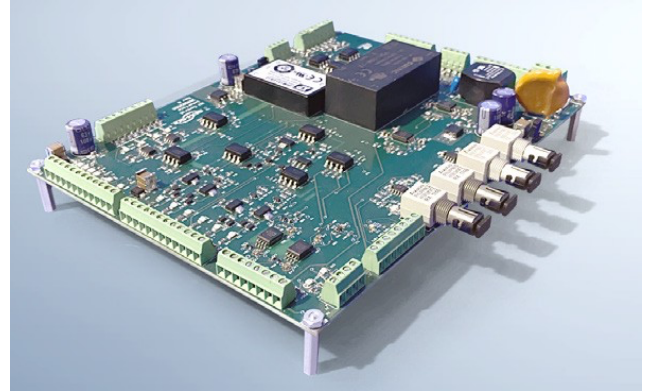
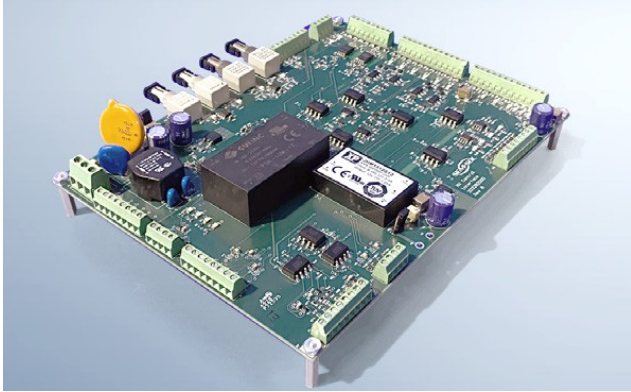


# Controller-HVPS Interface Board

The Sem-Sol Controller-HVPS Interface Board provides analog and digital isolation control circuitry to interface between controls (uController, etc.) and lab equipment like high-voltage power supplies.



## Specifications

### Input Power

90-280VAC, fused at 2 amps

On board DC Voltages

- 12VDC (+12) @ 950mA
- 12VDC (+12\_2) @ 1.25A
- 5VDC (+5) @ 500mA

### Digital Outputs

12 (function indicated by red LED)

Provides ~5kV isolation via opto-isolator.

- 6: 12V @ 1amp max output
- 4: 12V @ 2amp max output (4amp peak)
- 2: open collector outputs (50mA sinking, max)

### Digital Inputs

6 (function indicated by yellow LED)

Provides ~5kV isolation via opto-isolator.

- 6 inputs setup to receive 12V signals

### Analog Outputs

2 (function indicated by red LED)

Provides ~5kV isolation via reinforced isolated amplifier.

- 2 channels that take a 0-3.3V from uController and outputs 0-10V

### Analog Inputs

2 (function indicated by red LED)

- 2 channels that take 0-10V and sends 0-3.3V to uController

### Fiber TX Channels

2 (function indicated by blue LED)

Provides ~5kV isolation via reinforced isolated amplifier.

- 2 channels that take 3.3V input signal from uController and outputs ST fiber signals

### Fiber RX Channels

2 (function indicated by blue LED)

- 2 channels that receive ST fiber signals and converts it to 3.3V or 5V digital signal

**Note:** Fiber channels are not designed for high-speed communication. Current setup will permit  $\leq 0.5$  km.