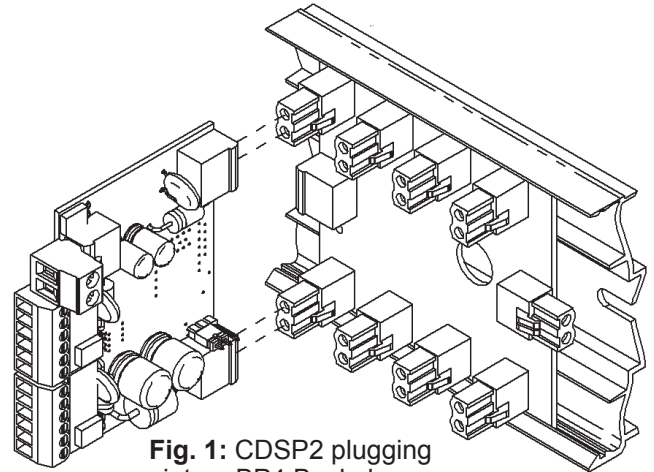


### Overview and Mounting

Critical ventilation requirements demand the use of CO<sub>2</sub> monitoring. Installing the sensors requires special voltages to run them and additional terminations to land the wiring. The BAPI CDSP2 - CO<sub>2</sub> Sensor Power Supply provides 24VDC or 12VDC power for two CO<sub>2</sub> sensors and terminations for the signal wires.

The CDSP2 plugs into the 4-point BP4 Backplane (see Fig. 1) or the 8-point BP8 Backplane. The CDSP2 receives power from the backplane which is powered by a BAPI PS17 - Power Supply or other power supply.

Three green Output Power LEDs light whenever power is present at the output terminals.

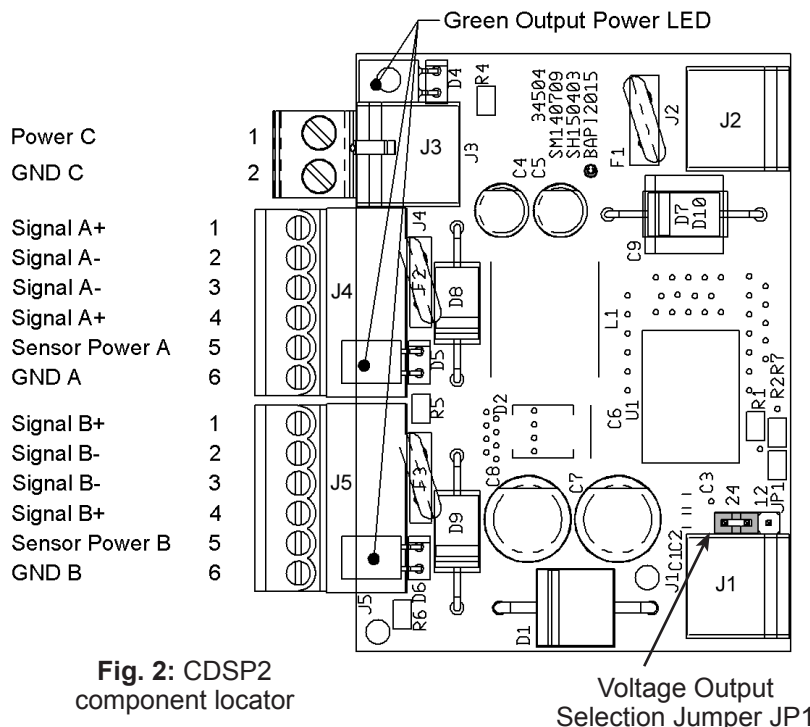


**Fig. 1:** CDSP2 plugging into a BP4 Backplane

### Termination

Connect as shown in the table and diagram shown below. 12 or 24 VDC at 0.5 Amps is available at J3, and at pins 5 and 6 of J4 and J5. The voltage output is set by the jumper position of JP1. Input voltage of 16 to 36 VDC is required for 12VDC output, and input voltage of 28 to 36 is required for 24 VDC output.

Note: The male connectors that plug into the jacks on the board use a rising block screw terminal to hold the wires. If the block is in a partially up position, the wire may be inserted under the block and the wire will not be held when the screw is tightened. To avoid improper wiring, turn the male connector screws counterclockwise until the block is below the wire opening before inserting the wire. Lightly tug on each wire after tightening to verify proper termination.



**Fig. 2:** CDSP2 component locator

Table 1: BA/CDSP2 Connection List	
Power - C - J3	
Pin 1	24 VDC or 12 VDC
Pin 2	Power Ground
CO <sub>2</sub> Sensor A - J4	
Pin 1	CO <sub>2</sub> Sensor A Signal "+" Output to Controller
Pin 2	CO <sub>2</sub> Sensor A Signal "-" Output to Controller
Pin 3	CO <sub>2</sub> Sensor A Signal "-" Input from Sensor
Pin 4	CO <sub>2</sub> Sensor A Signal "+" Input from Sensor
Pin 5	24 VDC or 12 VDC to Sensor A
Pin 6	Power Ground to Sensor A
CO <sub>2</sub> Sensor B - J5	
Pin 1	CO <sub>2</sub> Sensor B Signal "+" Output to Controller
Pin 2	CO <sub>2</sub> Sensor B Signal "-" Output to Controller
Pin 3	CO <sub>2</sub> Sensor B Signal "-" Input from Sensor
Pin 4	CO <sub>2</sub> Sensor B Signal "+" Input from Sensor
Pin 5	24 VDC or 12 VDC to Sensor B
Pin 6	Power Ground to Sensor B

Specifications subject to change without notice.



### Troubleshooting

#### Possible Problems:

Output power LED D4 does not light

Output power LEDs do not light

#### Possible Solutions:

- Check to see that the CDSP2 is firmly inserted into the backplane
- Check to see if the power cable is firmly inserted into the backplane.
- Check to see if the PS17 - Power Supply or other power supply is providing 28 to 36VDC to the backplane for 24VDC output or (or
  
- Disconnect the output terminal for the output that does not light. If the LED turns on, check the wiring or load for that CO<sub>2</sub> sensor for a short to ground.

### Specifications

Input Voltage	28 to 36 VDC for 24VDC output which is the factory default 16 to 36 VDC for 12 VDC Output which can be set in the field via jumper JP1. (Power is supplied by a BAPI PS17 - Power Supply or other customer provided power supply)
Input Current	1.45A maximum (12VA max )
Output Voltage	24VDC
Output Current	0.5A on each output, 1.5A total

Specifications subject to change without notice.