

Advanced Pulse WattNode - Option DPO (Dual Positive Outputs)

Option DPO adds an extra pulse output channel for positive real energy on the P3 output. This allows the WattNode to be easily connected to two different devices, such as a display and a data logger. Option DPO has the following the pulse output channels:

- P1 - Positive real energy (all phases).
- P2 - Negative real energy (all phases).
- P3 - Positive real energy (all phases).

The P1 and P2 outputs are exactly the same as the standard bidirectional pulse WattNode.

Installation

Follow the installation instructions and precautions in the **Advanced Pulse WattNode Installation and Operation Manual** or the **Quick Install Guide**. **Figure 1** shows an example of connecting a display and monitoring equipment to the P1 and P3 pulse output channels (you could also connect P2 to the monitoring equipment).

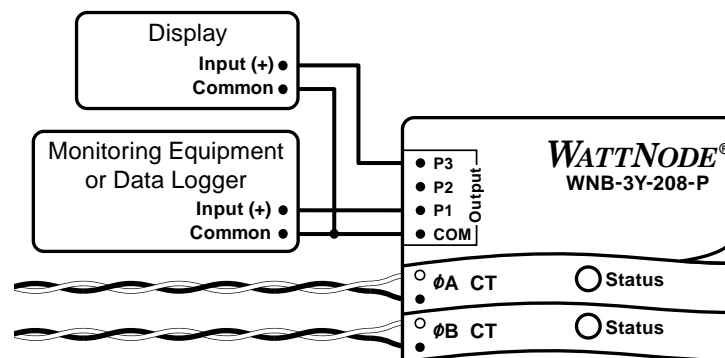


Figure 1: Option DPO - Pulse Output Connections

See the section **Connecting Pulse Outputs** in the **Installation and Operation Manual** for details on wiring the pulse output channels. If you have any questions or concerns about interfacing two devices to a WattNode, contact Continental Control Systems for assistance.

Installation Verification

For information on verifying correct operation and diagnosing problems, see the **Advanced Pulse Output WattNode Manual** section **Installation Diagnostics**.

Custom Pulse Frequencies

The standard full-scale pulse frequency for each channel (P1, P2, and P3) is 4.00 Hz, but you can order the WattNode with custom pulse frequencies from 0.01 Hz to 150 Hz. Different channels can have different frequencies.

Example: suppose you are connecting the WattNode P1 output to a datalogger and the P3 output to our LCDA-P LCD display to show power. Many data loggers work best with the standard 4.00 Hz output frequency, but CCS recommends a 20.0 Hz full-scale output frequency with the LCDA-P. In this case, you'd want the following:

- P1 Frequency = 4.00 Hz
- P2 Frequency = 4.00 Hz
- P3 Frequency = 20.0 Hz

To order this, specify "Option 4Hz,4Hz,20Hz" on your order.

Power and Energy Computation

The power and energy computation is the same as for a standard bidirectional pulse output WattNode. See the full manual for details. If you do order the WattNode with custom pulse frequencies, you will need to see the section **Power and Energy Equations**.