

We claim:

1. A meter electronics (100) for two or more meter assemblies (10a, 10b), the meter electronics (100) comprising:
 - a processor (110); and
 - 5 one or more signal processors (120) communicatively coupled to the processor (110), wherein the one or more signal processors (120) are configured to:
 - communicatively couple to a first meter assembly (10a) and a second
 - meter assembly (10b); and
 - receive a signal from the processor (110).
- 10 2. The meter electronics (100) of claim 1, wherein the one or more signal processors (120) are further configured to receive a first sensor signal (12a) from the first meter assembly (10a) and a second sensor signal (12b) from the second meter assembly (10b).
- 15 3. The meter electronics (100) of claim 2, wherein the one or more signal processors (120) are further configured to digitize the first sensor signal (12a) and the second sensor signal (12b).
- 20 4. The meter electronics (100) of one of any of the foregoing claims 1 through 3, wherein the one or more signal processors (120) are further configured to provide a first drive signal (14a) to a first meter assembly (10a) and a second drive signal (14b) to a second meter assembly (10b).
- 25 5. The meter electronics (100) of one of any of the foregoing claims 1 through 4, further comprising a communication port (140) communicatively coupled to the processor (110), wherein the communication port (140) is configured to communicatively couple with a host.
- 30 6. The meter electronics (100) of one of any of the foregoing claims 1 through 5, wherein the one or more signal processors (120) are configured to receive the first

sensor signal (12a) via a first communication channel (112a) and the second sensor signal (12b) via a second communication channel (112b).

7. The meter electronics (100) of one of any of the foregoing claims 1 through 6,
5 wherein the first sensor signal (12a) is comprised of signals from a left pick-off sensor (17al, 17bl) and a right pick-off sensor (17ar, 17br) in the first meter assembly (10a) and the second sensor signal (12b) is comprised of signals from a left pick-off sensor (17al, 17bl) and a right pick-off sensor (17ar, 17br) in the second meter assembly (10b).
- 10 8. The meter electronics (100) of one of any of the foregoing claims 1 through 7, further comprising at least one memory (130) communicatively coupled to the processor (110).
- 15 9. A method of operating two or more meter assemblies, the method comprising:
providing a first sensor signal, the first sensor signal being provided by a first meter assembly;
providing a second sensor signal, the second sensor signal being provided by a second meter assembly;
providing a signal with a processor; and
20 receiving the first sensor signal, the second sensor signal, and the signal provided by the processor with one or more signal processors one or more signal processors.
- 25 10. The method of claim 9, further comprising:
providing a first drive signal to the first meter assembly; and
providing a second drive signal to the second meter assembly;
wherein the first drive signal and the second drive signal are provided by the one or more signal processors.
- 30 11. The method of one of claim 9 or claim 10, further comprising digitizing the first sensor signal and the second sensor signal with the one or more signal processors.

12. The method of one of any of the foregoing claims 9 through 11, wherein the first and second sensor signal is provided to the one or more signal processors through a first communication channel and the second sensor signal is provided through a second communication channel.

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13. The method of one of any of the foregoing claims 9 through 12, wherein the first sensor signal is comprised of signals from a left pick-off sensor and a right pick-off sensor in the first meter assembly and the second sensor signal is comprised of signals from a left pick-off sensor and a right pick-off sensor in the second meter assembly.

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14. A system (5) with meter electronics (100) for two or more meter assemblies, the system (5) comprising:

a first meter assembly (10a);

a second meter assembly (10b); and

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a meter electronics (100) comprising:

one or more signal processors (120) communicatively coupled to the first meter assembly (10a) and the second meter assembly (10b); and

a processor (110) communicatively coupled to the one or more signal processors (120);

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the one or more signal processors (120) being configured to receive a signal from the processor (110).

15. The system (5) of claim 14, wherein the first meter assembly (10a) is configured to measure one of a property and a characteristic of a fluid in a supply line (SL) and the second meter assembly (10b) is configured to measure one of a property and a characteristic of a fluid in a return line (RL).

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