CLAIMS

What is claimed:

1. A downhole component comprising:

a wellbore tubular;

a plurality of fluid pathways configured to provide fluid communication within the downhole component;

a plurality of electronic actuators configured to selectively provide fluid communication through one or more of the plurality of fluid pathways, wherein at least one of the plurality of electronic actuators comprises a blocking member coupled to an electro-mechanical actuator; and

at least one sensor coupled to the plurality of electronic actuators, wherein one or more of the plurality of electronic actuators are configured to selectively actuate to allow or prevent fluid flow through a corresponding fluid pathway of the plurality of fluid pathways in response to the at least one sensor receiving a suitable signal.

2. The downhole component of claim 1, wherein the plurality of fluid pathways are configured to provide fluid communication between an exterior of the wellbore tubular and the interior of the wellbore tubular.

3. The downhole component of claim 1 or 2, further comprising a power source coupled to one or more of the plurality of electronic actuators, wherein the power source is configured to provide the power to actuate the one or more of the plurality of electronic actuators.

4. The downhole component of claim 3, wherein the power source comprises at least one of a battery, a downhole generator, a surface power source, or a downhole power source.

5. The downhole component of claim 3, wherein the power source is located at the surface of the wellbore.

6. The downhole component of any of claims 1 to 5, further comprising a sand control screen section disposed in series with the plurality of fluid pathways.

7. The downhole component of any of claims 1 to 6, further comprising one or more flow restrictions, wherein the one or more flow restrictions are disposed in at least one of the plurality of fluid pathways.

8. The downhole component of any of claims 1 to 7, wherein the blocking member is configured to selectively provide the fluid communication through two or more of the plurality of fluid pathways.

9. The downhole component of any of claims 1 to 8, wherein two or more of the plurality

of electronic actuators are configured to selectively actuate in response to the at least one sensor receiving the suitable signal.

10. The downhole component of any of claims 1 to 9, wherein the at least one sensor comprises a pressure sensor.

11. The downhole component of claim 10, wherein the suitable signal comprises at least one of a pressure, a pressure wave, one or more pressure pulses, or a sonic signal.

12. The downhole component of any of claims 1 to 11, wherein the one or more of the plurality of electronic actuators are further configured to selectively actuate to transition the plurality of fluid pathways from a first configuration to a second configuration in response to the at least one sensor receiving a suitable signal, wherein in the first configuration all of the plurality of fluid pathways are substantially closed to fluid flow, and wherein in the second configuration one or more of the fluid pathways are open to flow.

13. A production sleeve assembly for use in a wellbore, the production sleeve assembly comprising:

a wellbore tubular;

a plurality of fluid pathways configured to provide fluid communication between an exterior of the wellbore tubular and the interior of the wellbore tubular;

a plurality of electronic actuators, wherein at least one of the plurality of electronic actuators comprises a rupture devices disposed adjacent an actuable devices, wherein the plurality of electronic actuators is configured to selectively provide fluid communication through one or more of the plurality of fluid pathways; and

at least one sensor coupled to the plurality of electronic actuators, wherein the rupture device is configured to actuate the actuable device to allow fluid flow through at least one fluid pathway of the plurality of fluid pathways in response to the at least one sensor receiving a suitable signal.

14. The production sleeve assembly of claim 13, wherein the rupture device comprises a chemical initiator that is configured to ignite based on the at least one sensor receiving a suitable signal.

15. The production sleeve assembly of claim 13 or 14, wherein the actuable device is configured to provide fluid communication therethrough in response to be being actuated.

16. The production sleeve assembly of claim 15, wherein the actuable device is disposed in a first fluid pathway of the plurality of fluid pathways, and wherein the actuable device is configured to provide fluid communication through the first fluid pathway upon being actuated.

17. The production sleeve assembly of claim 16, wherein the first fluid pathway comprises a flow restriction.

18. The production sleeve assembly of any of claims 13 to 17, further comprising a piston disposed in a fluid pathway of the plurality of fluid pathways, wherein the piston is configured to shift in response to providing fluid communication through the actuable device, and wherein the piston is configured to provide fluid communication through the fluid pathway in response to the shifting.

19. A method of configuring a production sleeve assembly within a wellbore, the method comprising:

receiving a signal at a sensor;

determining that the signal is a suitable signal;

receiving, by one or more electronic actuators of a plurality of electronic actuators, power from a power source;

actuating the one or more electronic actuators in response to the determination that the signal is the suitable signal; and

selectively opening one or more fluid pathways of a plurality of fluid pathways in response to the actuating of the electronic actuator.

20. The method of claim 19, wherein the one or more fluid pathways provide fluid communication between an exterior of a wellbore tubular and an interior of the wellbore tubular

21. The method of claim 19 or 20, further comprising selectively closing one or more fluid pathways in response to the actuating of the electronic actuator.

22. The method of any of claims 19 to 21, wherein the power source is located at the surface of the wellbore.

23. The method of any of claims 19 to 22, wherein the signal comprises at least one of a pressure, a pressure wave, one or more pressure pulses, or a sonic signal.

CLAIMS

What is claimed:

1. A downhole component comprising:

a wellbore tubular disposed within a formation;

a filter media within the wellbore tubular, wherein the filter media comprises a protective outer shroud, wherein the protective outer shroud comprises a plurality of perforations;

a plurality of fluid pathways configured to provide fluid communication within the downhole component;

a plurality of electronic actuators configured to selectively provide fluid communication through one or more of the plurality of fluid pathways,

wherein at least one of the plurality of electronic actuators comprises a blocking member coupled to an electro-mechanical actuator via a retracting member, wherein the blocking member obstructs fluid flow of at least one of the one or more of the plurality of fluid pathways, wherein the at least one of the one or more of the plurality of fluid pathways comprises a fluid pathway between the formation and an interior of the wellbore tubular when in a first actuated configuration; and

at least one sensor coupled to the plurality of electronic actuators, wherein one or more of the plurality of electronic actuators are configured to selectively actuate to allow or prevent fluid flow through a corresponding fluid pathway of the plurality of fluid pathways in response to the at least one

sensor receiving a suitable signal, wherein the at least one sensor comprises a pressure sensor, and wherein the suitable signal comprises at least one of a pressure, a pressure wave, one or more pressure pulses, or a sonic signal.

2. The downhole component of claim 1, wherein the plurality of fluid pathways are configured to provide fluid communication between an exterior of the wellbore tubular and the interior of the wellbore tubular.

3. The downhole component of claim 1, further comprising a power source coupled to one or more of the plurality of electronic actuators, wherein the power source is configured to provide the power to actuate the one or more of the plurality of electronic actuators.

4. The downhole component of claim 3, wherein the power source comprises at least one of a battery, a downhole generator, a surface power source, or a downhole power source.

5. The downhole component of claim 3, wherein the power source is located at the surface of the wellbore.

6. The downhole component of claim 1, further comprising a sand control screen section disposed in series with the plurality of fluid pathways.

7. The downhole component of claim 1, further comprising one or more flow restrictions, wherein the one or more flow restrictions are disposed in at least one of the plurality of fluid pathways.

8. The downhole component of claim 1, wherein the blocking member is configured to selectively provide the fluid communication through two or more of the plurality of fluid pathways.

9. The downhole component of claim 1, wherein two or more of the plurality of electronic actuators are configured to selectively actuate in response to the at least one sensor receiving the suitable signal.

10. The downhole component of claim 1, wherein the one or more of the plurality of electronic actuators are further configured to selectively actuate to transition the plurality of fluid pathways from a first configuration to a second configuration in response to the at least one sensor receiving a suitable signal, wherein in the first configuration all of the plurality of fluid pathways are substantially closed to fluid flow, and wherein in the second configuration one or more of the fluid pathways are open to flow.