SUMMARY

[0005] According to a first aspect of the present invention, there is provided a connector for a fluidic circuit, the connector comprising: a valve body having at least three ports comprising first and second inlet ports and an outlet port; and a valve switch attached to the valve body, the valve switch being movable between a plurality of positions relative to the valve body; wherein, in a first position, the valve switch is configured to fluidically connect the first inlet port to the outlet port, and fluidically seal the second inlet port from the outlet port; wherein, in a second position, the valve switch is configured to fluidically connect the second inlet port to the outlet port, and fluidically seal the first inlet port from the outlet port, and wherein the first inlet port and the second inlet port each comprise a limiter for aligning the valve switch with the respective inlet port at the respective position.

[0006] In an embodiment, the first and second inlet ports are configured to be connected to first and second fluid sources, respectively, and wherein the outlet port is configured to be connected to a filter device.

[0007] In an embodiment, the first and second inlet ports and the outlet port each comprise an internal diameter having the same dimension as an internal diameter of the filter device.

[0008] In an embodiment, the valve body comprises a receptacle fluidically connected to each of the outlet port and first and second inlet ports, and wherein the valve switch is disposed in the receptacle such that the valve switch is rotatable between the plurality of positions.

[0009] In an embodiment, the out port, first inlet port and second inlet port are angularly spaced from each other.

[0010] In an embodiment, the valve switch comprises a plurality of holes configured to selectively connect the first inlet port to the outlet port in the first position, and to selectively connect the second inlet port to the outlet port in the second position.

[0011] In an embodiment, the connector further comprises at least one seal disposed at an interface between the valve body and valve switch, wherein the at least one seal is configured to maintain a positive pressure of up to 30cmH2O in the connector in use.

[0012] In an embodiment, the valve switch further comprises a visual indicator configured to indicate which of the first and second inlet ports is opened.

[0013] In an embodiment, a fluidic circuit includes: a first fluid source; a second fluid source; and the connector according to the first aspect, wherein the first and second inlet ports of the connector are configured to be connected to first and second fluid sources respectively.

[0014] In an embodiment, the first fluid source comprises a first ventilator and the second fluid source comprises a second ventilator.

[0015] In an embodiment, the first ventilator comprises an intensive care unit ventilator and the second ventilator comprises a transport ventilator.

[0016] According to a second aspect of the present invention, there is provided a method for assembling a connector for a fluidic circuit, the method comprising: providing a valve body having at least three ports comprising first and second inlet ports and an outlet port; and disposing a valve switch in the valve body such that the valve switch is movable between a plurality of positions relative to the valve body; wherein, in a first position, the valve switch is configured to fluidically connect the first inlet port to the outlet port, and fluidically seal the second inlet port from the outlet port; wherein, in a second position, the valve switch is configured to fluidically connect the second inlet port to the outlet port, and fluidically seal the first inlet port from the outlet port, and wherein the first inlet port and the second inlet port each comprise a limiter, and wherein attaching the valve switch to the valve body comprises aligning the valve switch with the respective inlet port at the respective position using the limiter.

[0017] In an embodiment, attaching the valve switch to the valve body comprises disposing the valve switch in the receptacle such that the valve switch is rotatable between the plurality of positions.

[0018] In an embodiment, the method further comprises disposing at least one seal at an interface between the valve body and valve switch such that the at least one seal maintains a positive pressure of up to 30cmH2O in the connector in use

[0019] In an embodiment, attaching the valve switch to the valve body comprises positioning the valve switch such that the visual indicator indicates which of the first and second inlet ports is opened.

CLAIMS

1. A connector for a fluidic circuit, the connector comprising:

a valve body having at least three ports comprising first and second inlet ports and an outlet port; and

a valve switch attached to the valve body, the valve switch being movable between a plurality of positions relative to the valve body;

wherein, in a first position, the valve switch is configured to fluidically connect the first inlet port to the outlet port, and fluidically seal the second inlet port from the outlet port;

wherein, in a second position, the valve switch is configured to fluidically connect the second inlet port to the outlet port, and fluidically seal the first inlet port from the outlet port; and

wherein the first inlet port and the second inlet port each comprise a limiter for aligning the valve switch with the respective inlet port at the respective position.

2. The connector of claim 1, wherein the first and second inlet ports are configured to be connected to first and second fluid sources, respectively, and wherein the outlet port is configured to be connected to a filter device.

3. The connector of claim 2, wherein the first and second inlet ports and the outlet port each comprise an internal diameter having the same dimension as an internal diameter of the filter device.

4. The connector of any one of the preceding claims, wherein the valve body comprises a receptacle fluidically connected to each of the outlet port and first and second inlet ports, and wherein the valve switch is disposed in the receptacle such that the valve switch is rotatable between the plurality of positions.

5. The connector of claim 4, wherein the outlet port, first inlet port and second inlet port are angularly spaced from each other.

6. The connector of claim 5, wherein the valve switch comprises a plurality of holes configured to selectively connect the first inlet port to the outlet port in the first position, and to selectively connect the second inlet port to the outlet port in the second position.

7. The connector of any one of the preceding claims, further comprising at least one seal disposed at an interface between the valve body and valve switch, wherein the at least one seal is configured to maintain a positive pressure of up to 30cmH2O in the connector in use.

8. The connector of any one of the preceding claims, wherein the valve switch further comprises a visual indicator configured to indicate which of the first and second inlet ports is opened.

9. A fluidic circuit comprising:

a first fluid source;

a second fluid source; and

the connector as claimed in claim 1,

wherein the first and second inlet ports of the connector are configured to be connected to first and second fluid sources respectively.

10. The fluidic circuit of claim 9, wherein the first fluid source comprises a first ventilator and the second fluid source comprises a second ventilator, and wherein the outlet port is configured to be connected to a filter device.

11. The fluidic circuit of claim 10, wherein the first ventilator comprises an intensive care unit ventilator and the second ventilator comprises a transport ventilator.

12. A method for assembling a connector for a fluidic circuit, the method comprising:

providing a valve body having at least three ports comprising first and second inlet ports and an outlet port; and

disposing a valve switch in the valve body such that the valve switch is movable between a plurality of positions relative to the valve body;

wherein, in a first position, the valve switch is configured to fluidically connect the first inlet port to the outlet port, and fluidically seal the second inlet port from the outlet port;

wherein, in a second position, the valve switch is configured to fluidically connect the second inlet port to the outlet port, and fluidically seal the first inlet port from the outlet port; and

wherein the first inlet port and the second inlet port each comprise a limiter, and wherein attaching the valve switch to the valve body comprises aligning the valve switch with the respective inlet port at the respective position using the limiter.

13. The method of claim 12, wherein the valve body comprises a receptacle fluidically connected to each of the outlet port and first and second inlet ports, and attaching the valve switch to the valve body comprises disposing the valve switch in the receptacle such that the valve switch is rotatable between the plurality of positions.

14. The method of claim 12 or 13, further comprising disposing at least one seal at an interface between the valve body and valve switch such that the at least one seal maintains a positive pressure of up to 30cmH2O in the connector in use.

15. The method of any one of claims 12 to 14, wherein the valve switch further comprises a visual indicator, and wherein attaching the valve switch to the valve body comprises positioning the valve switch such that the visual indicator indicates which of the first and second inlet ports is opened.