manufacturing, and managing a fluid control body are simplified to suppress cost of manufacturing, etc., and desired control properties are provided.

Solution to Problem

[0007]

According to an aspect of the present invention, there is provided a fluid control device including a fluid control body that controls a fluid in a pipe, the fluid control body being installed in a sealed manner inside a casing which is externally fitted onto a fluid pipe in a sealed manner at a point where part of the fluid pipe is cut off in an uninterrupted flow state, wherein the fluid control body includes an assembled on-off valve as a united device by a valve seat body which includes an opening portion and a valve element which is provided in the valve seat body in such a manner that the opening portion is openable and closable, the assembled on-off valve being provided with a neck portion for operating the valve element on the top of the valve seat body, and a partition body which is mounted to the assembled on-off valve by a wall portion that is provided with a through hole communicating with the opening portion, the wall portion being mounted on the valve seat body in a sealed manner, and a lid portion which is provided continuously to the wall portion, the lid portion

covering an opening side of the casing, the partition body including a seal component that seals a gap between an inner surface of the casing and the partition body.

According to this aspect of the present invention, as the fluid control body installed in the casing which is

CLAIMS

1. A fluid control device comprising a fluid control body that controls a fluid in a pipe, the fluid control body being installed in a sealed manner inside a casing which is externally fitted onto a fluid pipe in a sealed manner at a point where part of the fluid pipe is cut off in an uninterrupted flow state, wherein

the fluid control body includes

an assembled on-off valve as a united device by a valve seat body which includes an opening portion and a valve element which is provided in the valve seat body in such a manner that the opening portion is openable and closable, the assembled on-off valve being provided with a neck portion for operating the valve element on the top of the valve seat body, and

a partition body which is mounted to the assembled on-off valve by

a wall portion that is provided with a through hole communicating with the opening portion, the wall portion being mounted on the valve seat body in a sealed manner, and

a lid portion which is provided continuously to the wall portion, the lid portion covering an opening side of the casing,

the partition body including a seal component that seals a gap between an inner surface of the casing and the partition body.

2. The fluid control device according to claim 1, wherein

the wall portion is formed by a pair of wall members that is mounted to sandwich the valve seat body in an axial direction of the fluid pipe.

3. The fluid control device according to claim 2, wherein

the lid portion is provided continuously to each of the pair of wall members.

4. The fluid control device according to any one of claims 1 to 3, wherein

an axial hole through which the neck portion of the fluid control body is inserted is formed in the lid portion.

5. The fluid control device according to claim 4, wherein

the lid portion is mounted around the neck portion in an axial direction of the fluid pipe, and wherein

by connecting the lid portion in the axial direction, the axial hole is formed.

6. The fluid control device according to any one of claims 1 to 5, wherein

a sealing member that seals the opening portion so as to enclose the opening portion is disposed between the valve seat body and the wall portion.