CLAIMS

1. A device in a valve (1) comprising a valve housing (2) with at least a first (3) and a second (4) fluid port, a closure element (5) being arranged in the valve housing (2), which closure element (5) has a sealing portion (15) and comprises a diaphragm (30), the sealing portion (15) being movable along an axis of the closure element (5) by means of said diaphragm (30) between an open position and a closed position of at least one of the fluid ports of the valve housing, the closure element (5) together with the valve housing (2) forming a flow passage (11) in the valve housing (2) which communicates with said fluid ports when the sealing portion (15) leaves said closed position, a second sealing portion (14) of the closure element, which is an enclosing portion spaced-apart from said axis, being arranged in contact with a support portion (25) of the valve housing (2), an abutment means (16) being arranged in contact along the periphery of said second sealing portion (14) in such manner that said second sealing portion (14) is arranged between the support portion (25) and the abutment means (16), the abutment means (16) being arranged to transmit a force via said second sealing portion (14) towards the support portion (25) to provide a seal, c h a r a c t e r i s e d in that said abutment means (16) is a spring means.

2. A device as claimed in claim 1, wherein said spring means is chosen from the group of torsions springs and resilient springs with bending action.

3. A device as claimed in any one of claims 1 and 2, in which a pressure spring (35) is arranged so as to provide a compressive force parallel with said axis.

4. A device as claimed in any one of claims 1 to 3, in which a spring washer (36) is arranged so as to provide a compressive force parallel with said axis.

5. A device as claimed in any one of claims 1 to 4, in which the abutment means is a spring washer (35).

6. A device as claimed in any one of claims 1 to 5, in which said second sealing portion (15) of the closure element (5) has a sealing region (29) and the valve housing (2) has a complementary seat portion (31) for mutual sealing.

7. A device as claimed in any one of claims 1 to 6, in which the sealing portion (15) of the closure element (5) is operably connected by an actuator

(6), the device having a coupling device (7) which has a locking means (8) adapted to be arranged to the valve housing (2) and an actuating device (10) adapted to be connected to the coupling device (7) to operate the actuator (6).

8. A device as claimed in any one of claims 6 and 7, in which the actuator (6) is elongate and arranged so that its longitudinal axis coincides with said axis of the closure element (5) and further arranged in an actuator recess (18) through a recess (19) in the coupling device (7).

9. A device as claimed in any one of claims 7 and 8, in which the abutment means (16) is adjustably arranged in the coupling device (7) by means of a thread bushing (20).

10. A device as claimed in claim 9, in which the thread bushing (20) is externally threaded and connected to the recess (19) in the coupling device (7).

CLAIMS

1. A valve device comprising a valve housing (2) with at least a first (3) and a second (4) fluid port, a closure element (5) being arranged in the valve housing (2), which closure element (5) has a sealing portion (15) and comprises a diaphragm (30), the sealing portion (15) being movable along an axis of the closure element (5) by means of said diaphragm (30) between an open position and a closed position of at least one of the fluid ports of the valve housing, the closure element (5) together with the valve housing (2) forming a flow passage (11) in the valve housing (2) which communicates with said fluid ports when the sealing portion (15) leaves said closed position, wherein the sealing portion (15) of the closure element (5) is operably connected by an actuator (6), the device having a coupling device (7) which has a locking means (8) adapted to be arranged to the valve housing (2) and an actuating device (10) adapted to be connected to the coupling device (7) to operate the actuator (6), a second sealing portion (14) of the closure element, which is an enclosing portion spaced-apart from said axis, being arranged in contact with a support portion (25) of the valve housing (2), an abutment means (16) being arranged in contact along the periphery of said second sealing portion (14) in such manner that said second sealing portion (14) is arranged between the support portion (25) and the abutment means (16), the abutment means (16) being arranged to transmit a force via said second sealing portion (14) towards the support portion (25) to provide a seal, characterised in that said abutment means (16) is a spring means adjustably arranged in the coupling device (7) by means of a thread bushing (20), and wherein the thread bushing (20) is externally threaded and connected to a centrally arranged recess (19) in the coupling device (7).

2. A device as claimed in claim 1, wherein said spring means is chosen from the group of torsions springs and resilient springs with bending action.

3. A device as claimed in any one of claims 1 and 2, in which a pressure spring (35) is arranged so as to provide a compressive force parallel with said axis.

4. A device as claimed in any one of claims 1 to 3, in which a spring washer (36) is arranged so as to provide a compressive force parallel with said axis.

5. A device as claimed in any one of claims 1 to 4, in which the abutment means is a spring washer (35).

6. A device as claimed in any one of claims 1 to 5, in which said second sealing portion (15) of the closure element (5) has a sealing region (29) and the valve housing (2) has a complementary seat portion (31) for mutual sealing.

7. A device as claimed in any one of claims 1 to 6, in which the actuator (6) is elongate and arranged so that its longitudinal axis coincides with said axis of the closure element (5) and further arranged in an actuator recess (18) through a recess (19) in the coupling device (7).