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1. **ERIKS operating companies**

ECON float valves are being delivered by several ERIKS operating companies on a worldwide basis. In this manual these will be referred to as 'ERIKS', the individual terms of delivery of the ERIKS operating company having executed the order are applicable.

2. **Product description**

The ECON float valves are designed according the information in our latest catalogue or see our website www.eriks.com and should be used in accordance with the applicable pressure-temperature rating as stated on this website.

3. **Requirements for maintenance staff**

The staff assigned to assembly, operating and maintenance tasks should be qualified to carry out such jobs and in any circumstance, ensure personal safety.

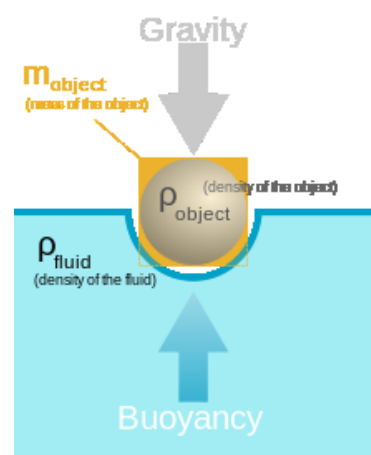
4. **Transport and storage**

Transport and storage should always be carried out with the valve separated from the floating ball and both should be protected against external forces.

The valves should be stored in an unpolluted space and should also be protected against all atmospheric circumstances. There should be taken care of the temperature and humidity in the room, in order to prevent condensate formation.

5. **Function**

ECON float valves are designed for regulating the liquid level in tanks. The level regulator with float (ball cock) must be used in tanks at atmospheric pressure. The positive upwards force (buoyancy) generated by the liquid on the float causes the opening and closing of the disc thanks to the lever mechanism. The valve closes when the ball rises with the liquid level. (See drawing on the next page)



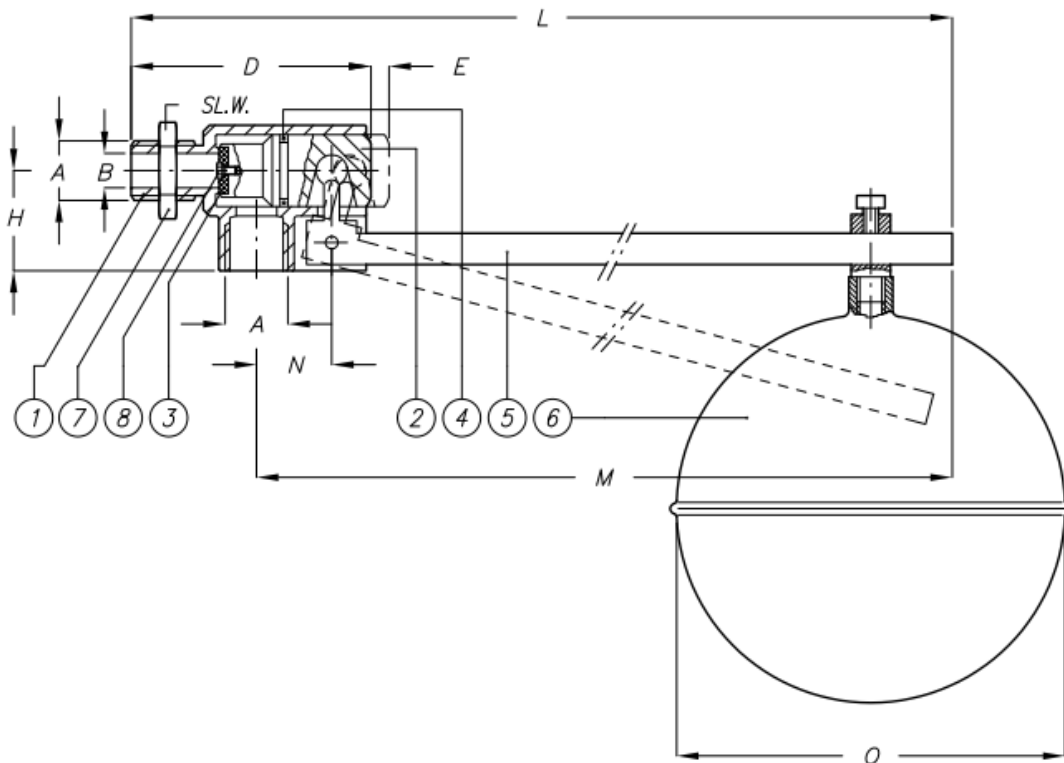
6. Application

ECON float valves are widely used for regulating the fluid level of tanks. They cannot be used for safety purposes on pressure equipment in category (CI – CII – CIII – CIV) They are not for containing fluids in group 1 -2 in gas/steam or liquid state with steam tension greater than 0,5 bar compared to the atmospheric pressure (1013mmbar) at the highest operating temperature foreseen. The installation designer is responsible for the float valve selection, suitable for the working conditions. The valves are unsuitable, without written permission of an ERIKS company, to apply for hazardous media as referred into Regulation (EC) No 1272/2008.

7. Installation

During the assembly of the ECON float valve, the following rules should be observed:

- the valves should be checked before installation if they have not any defects caused by transport and/or storage.
- make sure that the applied valves are suitable for the working conditions, medium used in the plant and the right system connections, according to pressure and temperature limits.
- install without forcing or twisting the mechanism
- use appropriate sealing elements on the threaded fittings
- by adjusting the float ball position it is possible to carry out the opening pressure timing in the working range of 2 – 4 bar.



- | | |
|-----------|----------|
| 1. Body | AISI 304 |
| 2. Disc | AISI 304 |
| 3. Gasket | PTFE |
| 4. O-ring | NBR |
| 5. Lever | AISI 304 |
| 6. Float | AISI 304 |
| 7. Nut | AISI 304 |
| 8. Bolt | AISI 304 |

A	B	D	E	H	L	M	N	O	SL.W.
3/8"	11	80	4	38	445	405	27	120	27
1/2"	14	98.5	6	40	506	430	32	150	32
3/4"	17	107	10	50	495	440	38	220	41
1"	23	127	10	55	597	532	42	240	50
1.1/4"	30	155	12	67	597	520	54	240	55
1.1/2"	36	170	13	70	617	538	60	260	60
2"	47	205	15	80	669	575	80	300	70

8. Maintenance

Before starting any service jobs on the float valve make sure that the pressure was decreased to ambient pressure and ventilated. Always keep safety instructions in mind and take all personal safety precautions.

During maintenance, the following rules should be observed:

- always keep personal safety precautions in mind and always use appropriate protection e.g. clothing, masks, gloves etc.
- before carrying out any maintenance operation, empty the contained fluid and make sure that it is no more under pressure
- be alert that the temperature still can be very high or low and can cause burns.
- check the valve on all possible leaking possibilities.
- check if the screwed thread connection is still sealed with tape.
- dust, grease and medium residual, must be frequently cleaned of the valve body and all moving parts, such as the float to maintain all operating functions.
- if there is a leakage along the disc, the rubber gasket and PTFE bushing has got to be checked.
- if required change the gasket and/or bushing, for safety reasons the valves can only be repacked, when depressurized, drained and ventilated.
- check if the disc still open and close in a proper manner, by lifting of the float/handle.
- the thickness of the body must be checked to ensure safety operation at an interval of at least three months.

9. Service and repair

All service and repair jobs should be carried out by authorized staff, using suitable tools and user shall use valve gasket, bushing and nut of the same size and material as the original one.

- welding (repair) and drilling of the valve is forbidden.
- after replacement of the rubber gasket and/or PTFE bushing or sealing tape, it is necessary to check the valve operation and tightness of all connections.
- after installation, the valve should be checked and maintained periodically at least every 3 months, depending on the medium.

10. Troubleshooting

It is essential that the safety regulations are observed when identifying the fault.

Problem	Possible cause	Corrective measures
No access	Thread cap is not removed	Remove thread cap
	Float ball is in close position	Adjust the float ball
Little access	Disc not completely open	Check the adjustment
	Piping system clogged	Check piping system
Leakage along the disc	Gasket damaged	Replace the gasket

11. Removal

All dismantled and rejected valves cannot be disposed with household waste. The valves are made of materials which can be re-used and should be delivered to designated recycling centres.

General warning:

General note for products which may be used for seawater:

Although our products can be used in seawater systems it should always be noted that, in case of installation in a piping system made of materials which are frequently used because of their excellent seawater resistance (e.g. CuNife), large potential differences may occur possibly causing corrosion which could permanently damage the proper functioning and integrity of our product.

A combination of different materials should always be mentioned prior to the purchase of our products in order for us to give the best possible advice on a safe functioning.