

Operation Manual

Float Switch

50593, 50598, 50599, 50629, 50630



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps, and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities, please contact us.



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If you should find a mistake or wish to make a suggestion for improvement, we look forward to hearing from you.

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Introduction

Thank you for purchasing this quality product. **To minimise the risk of injury we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Keep these operation instructions safe.

Safety precautions

CAUTION:

- This float switch is intended to be installed by qualified persons who are able to use the device properly. Qualified persons are persons familiar with the installation, assembly, commissioning, and operation of these devices and who have the appropriate qualifications for this work.
- To ensure a safe operation, the device may only be operated in accordance with the information in the operating instructions. When using the device, the legal and safety regulations required for the respective application must also be observed. This also applies to the use of accessories.

ATTENTION:

- Perform a visual inspection of the float switch before each use. Do not use the float switch if safety devices are damaged or worn. Never override safety devices.
- Only use the float switch for the purpose specified in these operating instructions.
- You are responsible for the safety in the work area.
- If the cable is damaged due to external influences, it must not be repaired.
- The voltage of 230 V AC specified on the nameplate of the float switch must correspond to the existing mains voltage.
- Make sure that the electrical plug connections are protected from flooding and moisture.
- Pull out the mains plug before starting any work.
- The operator is responsible for compliance with location-specific safety and installation regulations. You may ask a qualified electrician.
- The user must take appropriate measures to prevent consequential damage after a room is flooded in the event of malfunctions on the float switch (e.g., installation of an alarm system, reserve pump, etc.).

WARNING:

Read all safety warnings and instructions. Failure to follow the safety precautions and instructions could result in electric shock, fire, and/or serious injury. Keep all safety notices and instructions for future use.

Resistance

- The maximum temperature of the liquid should not exceed +50 °C in continuous operation.
- Use in easily flammable (petrol) and flammable liquids is not permitted.
- The float switch is used to monitor the level of various media that do not attack the materials used. Any use going beyond this is considered improper.
- The float switch must not be used as the sole means of averting dangerous conditions on machines and systems.
- Machines and systems must be designed in such a way that faulty states cannot lead to a dangerous situation for the operating personnel.



Functional description

The float switch works according to the buoyancy principle. A hollow float is raised by the rising liquid until a switching process is triggered at an angle of 50° to the horizontal. The switch consists of a plastic float with a watertight, position-dependent electromechanical microswitch. The float is equipped with a cable of different lengths.

Installation

The switch can be attached to the side by means of a screw connection or, if the container is open, from above. The switching point is determined by the weight.

Area of application

The float switch is suitable for monitoring the level of almost all liquids that do not attack its material, regardless of how dirty it is.

Technical data

Item number	50593	50598	50599	50629	50630
Voltage (V)	230				
Frequency (kg)	50				
Max. switching current (A)	16				
Max. voltage fluctuation (%)	±10				
Switching angle (°)	±50				
Temperature range (°C)	0–50				
Protection class	IP68				
Cable cross section (mm ²)	3 × 1				
Cable length (m)	10	5	10	5	2

Electrical connection

The electrical connection is made to an earthed socket with 230 V ~ 50 Hz; protection at least 16 A.



Cleaning

The float switch and the cable must be cleaned **only** with mild cleaning agents, a wet cloth, and soapy water from outside. Damage caused by inappropriate cleaning agents is not covered by warranty

Maintenance advice

The float switch is maintenance free. For a long operating life, we recommend regular check and service.

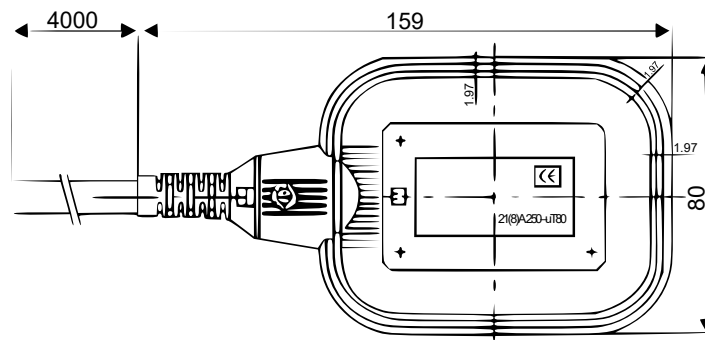
Caution! Before every maintenance work, the float switch must be switched off.

⚠ WARNING

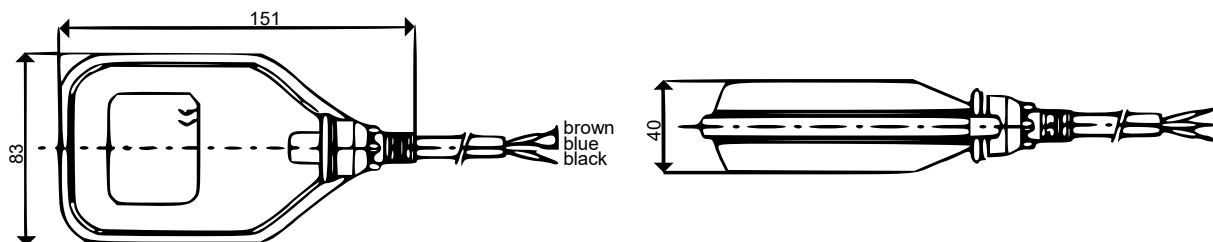
- This float switch may only be installed by qualified persons.
- No repairs may be carried out on the float switch.
- Cables that are not connected must be insulated.
- The cable connections must not be immersed in water.
- The connected pump must be earthed.

Dimensions

Variant 1



Variant 2



Fixing the weight balance (Fig. 1)

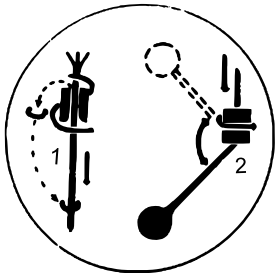


Figure 1

Insert the cable from the wide opening in the weight balance and pull it through according to the needed switching height (water level).

Cable connection for automatic filling (Fig. 2, 3, 4)

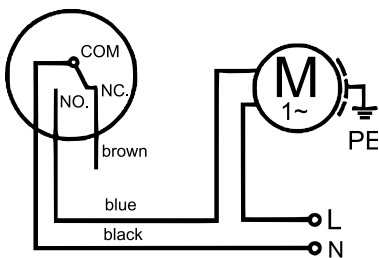


Figure 2

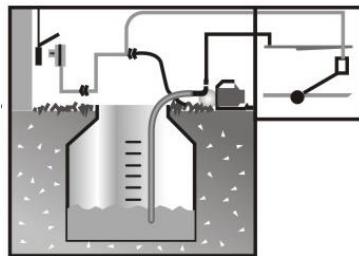


Figure 3

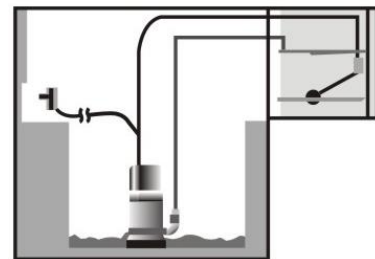


Figure 4

- Connect “blue” to the pump, “black” to the neutral conductor; “brown” is not used and must be insulated.
- As soon as the water level drops under the required minimum height, the switch starts the pump. If the tank is full, the switch stops the pump. The height of automatic water level control is set according to Fig. 3.

Automatic pumping out and water shortage protection (Fig. 5, 6, 7)

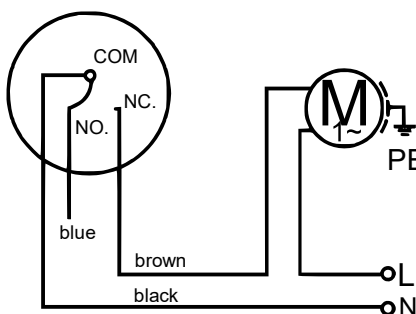


Figure 5

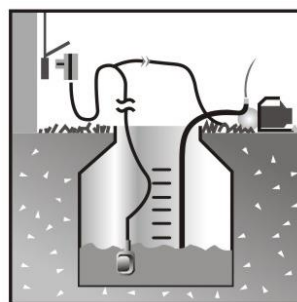


Figure 6

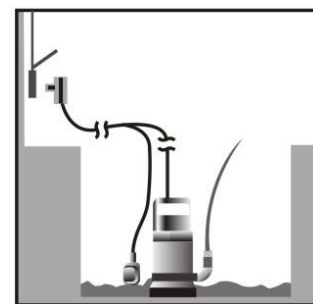
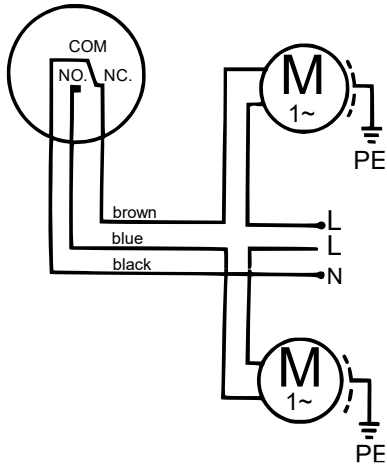


Figure 7

- Connect “brown” to the pump, “black” to the neutral conductor; “blue” is not used and must be insulated.
- After reaching the pre-set maximum height, the switch starts the pump, if the water level drops under the minimum height, it stops the pump and protects it against dry running.

Automatic filling and pumping out (Fig. 8)



This circuit allows automatic filling and pumping out with two pumps.

Figure 8

Disposal regulations

EU guidelines regarding the disposal of scrap electric appliances (WEEE, 2012/19/EU) were implemented in the law related to electrical and electronic equipment and appliances.

All WiITec electric devices that fall under the WEEE regulations are labelled with the crossed-out wheeled waste bin logo. This logo indicates that this electric equipment must not be disposed with the domestic waste.

The company WiITec Technik GmbH has been registered in the German registry EAR under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic appliances (intended for use in the countries of the European Union and other European countries with a separate collection system for these appliances).

The logo on the article or on its packaging points out that this article must not be treated as normal household waste but must be disposed to a recycling collection point for electronic and electrical waste equipment. By contributing to the correct disposal of this article you protect the environment and the health of your fellow men. Environment and health are threatened by inappropriate disposal.



Material recycling helps reduce the consumption of raw materials.

Additional information on recycling this article can be provided by your local community, municipal waste disposal facilities, or the store where you purchased the article.

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