KATSU Tools 151010

KATSU 151010 Float Switch User Manual

Model: **151010** | Brand: **KATSU Tools**

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your KATSU 151010 Float Switch. Please read these instructions carefully before use and retain them for future reference. The float switch is designed to automatically control the water level in various applications by activating or deactivating an electric pump.

2. Safety Information

- **Electrical Hazard:** Always disconnect power before installation, maintenance, or troubleshooting. Improper wiring can lead to electric shock or fire.
- **Qualified Personnel:** Installation and wiring should only be performed by a qualified electrician in accordance with local electrical codes and regulations.
- **Voltage Compatibility:** Ensure the float switch's voltage rating (220V) matches your power supply.
- **Operating Environment:** Do not exceed the maximum operating temperature of 50°C. The device has an IP658 protection class, indicating protection against dust and immersion, but avoid extreme conditions beyond its rating.
- **Cable Integrity:** Regularly inspect the cable for damage. Do not use if the cable is frayed or damaged.

3. Product Overview

The KATSU 151010 Float Switch is a robust and reliable device for automatic liquid level control. It features a durable polypropylene housing and a 2-meter cable for flexible installation.

Key Features:

- Made of high-quality polypropylene for long service life.
- Automatically adjustable for ease of use and installation.
- Capable of measuring and controlling water levels in various containers.
- Applicable for controlling pump operation based on liquid level.

- Suitable for AC and DC voltage applications.

Components:

- Float body (yellow and blue housing)
- 2-meter electrical cable (typically with three internal wires: Common, Normally Open, Normally Closed)
- Counterweight (often a separate yellow component on the cable for adjusting activation point)

Image 1: The KATSU 151010 Float Switch, showing its main body, electrical cable, and the yellow counterweight.

4. Specifications

Brand	KATSU Tools
Model Number (Item)	15100_V1
Product Dimensions	8.9 x 12.7 x 8.9 cm
Weight	510 g
Cable Length	2 meters
Voltage	220 Volts
Max. Current	16 (5) Amperes
Frequency	50/60 Hz
Protection Class	IP658
Max. Operating Temperature	50°C
Material	Polypropylene (PP)
Color	Yellow
Country of Origin	China

5. Setup and Installation

WARNING: Ensure power is disconnected before proceeding with installation.

5.1. Mounting the Float Switch

1. **Determine Mounting Location:** Choose a location in the tank or reservoir where the float switch can move freely without obstruction.
2. **Secure the Cable:** Use a cable clamp or tie to secure the float switch cable to the side of the tank or a fixed point. Ensure the cable is securely fastened above the highest desired water level.
3. **Adjust Activation Level:** The yellow counterweight on the cable allows you to adjust the activation and deactivation points. Slide the counterweight along the cable to set the desired length of the free-moving cable section. A shorter free section results in a smaller water level differential for activation, while a longer section allows for a wider differential.

4. **Test Movement:** Manually lift and lower the float switch to ensure it moves smoothly and freely within the desired range.

5.2. Electrical Wiring

The float switch typically has three wires: Common (often Black), Normally Open (NO, often Brown), and Normally Closed (NC, often Blue). The specific colors may vary; always consult the wiring diagram provided with your pump or system if available.

- **For Pump Emptying (Drainage):** Connect the **Common** wire and the **Normally Open (NO)** wire to your pump's control circuit. The pump will turn ON when the water level rises (float switch tips up) and turn OFF when the water level drops (float switch tips down).
- **For Pump Filling (Filling a Tank):** Connect the **Common** wire and the **Normally Closed (NC)** wire to your pump's control circuit. The pump will turn ON when the water level drops (float switch tips down) and turn OFF when the water level rises (float switch tips up).
- **Insulate Connections:** Ensure all electrical connections are properly insulated and protected from moisture.

6. Operating Instructions

Once properly installed and wired, the KATSU 151010 Float Switch operates automatically. The float switch will tilt with changes in water level, activating or deactivating the connected pump based on your wiring configuration (emptying or filling mode).

- **Initial Test:** After installation, carefully restore power and observe the pump's behavior as the water level changes. Manually adjust the water level if possible to confirm correct operation.
- **Adjusting Levels:** If the pump activates or deactivates at undesired levels, adjust the position of the counterweight on the float switch cable. Moving the counterweight closer to the float body will reduce the switching differential, while moving it further away will increase it.

7. Maintenance

Regular maintenance ensures reliable operation of your float switch.

- **Disconnect Power:** Always disconnect the power supply before performing any maintenance.
- **Inspect for Debris:** Periodically check the float switch and its cable for any debris, sludge, or foreign objects that might impede its free movement. Clean as necessary.
- **Cable Inspection:** Inspect the electrical cable for any signs of wear, cuts, or damage. Replace the float switch if the cable is compromised.
- **Float Body Check:** Ensure the float body is intact and free from cracks or leaks.

8. Troubleshooting

If the float switch is not operating as expected, consider the following:

Problem	Possible Cause	Solution

Pump does not turn ON/OFF	No power supply Incorrect wiring Float switch obstructed Internal fault	Check power connection Verify wiring against instructions Clear any obstructions around the float Replace float switch if faulty
Pump turns ON/OFF at wrong level	Counterweight position incorrect	Adjust the counterweight position on the cable to set desired activation levels
Float switch stuck	Debris or sediment buildup Cable snagged	Clean the float and surrounding area Ensure cable moves freely

9. Disposal

When the float switch reaches the end of its service life, do not dispose of it with general household waste. Please recycle electrical and electronic equipment according to local regulations. Contact your local authorities or retailer for information on proper disposal and recycling options.

10. Warranty and Support

For warranty information or technical support, please refer to the documentation provided at the time of purchase or contact your retailer or the manufacturer directly. Keep your purchase receipt as proof of purchase.