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> LEFOO LF40 Pressure Switch User Manual

LEFOO LF40

LEFOO LF40 Pressure Switch User Manual

Model: LF40 | Brand: LEFOO

1. INTRODUCTION AND PRODUCT OVERVIEW

The LEFOO LF40 Pressure Switch is a compact and reliable component designed for various applications requiring pressure-activated control. It is commonly used in systems such as spa and hot tub pumps, food waste disposers, swimming pools, and cleaning equipment. This manual provides essential information for the proper installation, operation, and maintenance of your LF40 pressure switch.



Figure 1.1: Front view of the LEFOO LF40 Pressure Switch.



Figure 1.2: Detailed product parameters including weight, medium, action, working temperature, electrical parameters, and connection type.

Key Features:

- Compact and lightweight design (approx. 17g).
- Designed for air medium applications.
- Alternating action with a pressure range of 1.0 to 1.8 PSI.
- Wide operating temperature range: -10°C to 85°C.
- High electrical rating: 22A/250VAC.
- NPT 1/4 connection with fixing nut for secure installation.
- UL and CE certified for quality and safety.
- Suitable for various applications including food waste disposers, swimming pools, hot tubs, and cleaning equipment.

2. PRODUCT CERTIFICATIONS

The LEFOO LF40 Pressure Switch has undergone rigorous testing and received important certifications, ensuring its quality, safety, and compliance with international standards.



Figure 2.1: Overview of product certifications including CE and UL, and common application scenarios.

- **UL Certified:** Recognized by Underwriters Laboratories for safety and quality standards in North America.
- **CE Certified:** Conforms with health, safety, and environmental protection standards for products sold within the European Economic Area (EEA).

3. TECHNICAL SPECIFICATIONS

Below are the detailed technical specifications for the LEFOO LF40 Pressure Switch:

Specification	Value
Model Number	LF40
Weight	17g (0.71 ounces)
Medium	Air
Action	Alternating 1.0~1.8 PSI
Working Temperature	-10°C to 85°C
Electrical Parameters	22A/250VAC
Connection Type	NPT 1/4 With Fixing Nut
Contact Type	Normally Open (NO) / SPDT
Product Dimensions (L x W x H)	1.87 x 1.74 x 1 inches



Figure 3.1: Dimensional drawing of the LEFOO LF40 Pressure Switch, showing key measurements.

4. INSTALLATION GUIDELINES

Proper installation is crucial for the safe and effective operation of the LF40 pressure switch. It is recommended that installation be performed by a qualified professional if you are unsure about any steps.

4.1 Mounting the Switch:

- The LF40 switch features an NPT 1/4 threaded connection. Ensure the mating port on your equipment is compatible.
- Use the provided fixing nut to secure the switch firmly in place. Hand-tighten first, then use a wrench for a snug fit, being careful not to overtighten.
- The compact size of the LF40 allows it to fit inside most engine linkage boxes or tight spaces.
- Ensure the switch is mounted in a location where it is protected from excessive moisture, dust, and physical damage, unless specifically designed for such environments.



Figure 4.1: Side view of the LF40 switch, showing the NPT 1/4 threaded connection and fixing nut.

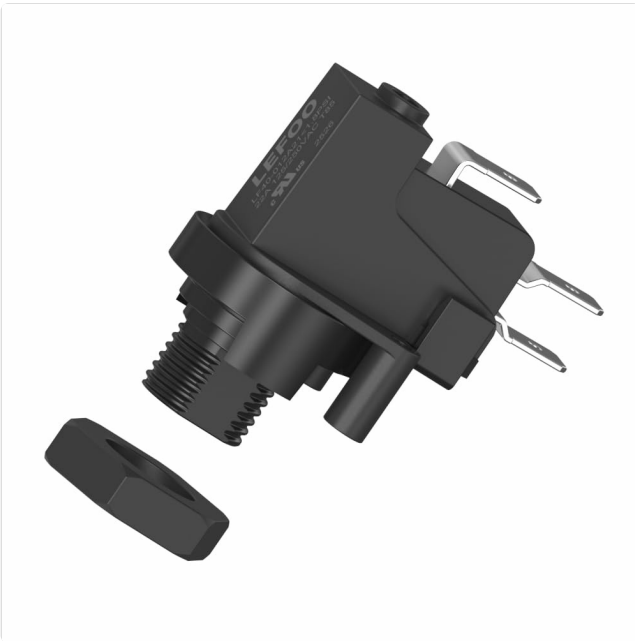


Figure 4.2: Angled view illustrating the assembly of the switch with its fixing nut.

4.2 Electrical Connections:

The LF40 is a Single Pole Double Throw (SPDT) switch, meaning it has three terminals: Common (COM), Normally Open (NO), and Normally Closed (NC). For most applications, you will use the Common and Normally Open terminals.

- **Common (COM):** This is the input terminal for the electrical circuit.
- **Normally Open (NO):** The circuit between COM and NO is open when no pressure is applied and closes when pressure reaches the activation threshold.
- **Normally Closed (NC):** The circuit between COM and NC is closed when no pressure is applied and opens when pressure reaches the activation threshold.
- Connect the electrical wiring according to your application's specific circuit diagram. Ensure all connections are secure and insulated to prevent short circuits.
- Verify that the power supply voltage and current do not exceed the switch's electrical parameters (22A/250VAC).

5. OPERATING INSTRUCTIONS

The LEFOO LF40 Pressure Switch operates based on changes in air pressure within the connected system.

- When the pressure in the system reaches the activation threshold (between 1.0 and 1.8 PSI), the switch will actuate.
- For Normally Open (NO) configurations, this means the circuit will close, allowing current to flow and activate the connected device (e.g., pump, disposer).
- The switch is designed for "Alternating" action, meaning it will switch states when the pressure threshold is met.
- Ensure the system's operating pressure falls within the switch's specified range for reliable performance.

6. MAINTENANCE

The LF40 pressure switch is designed for durability and requires minimal maintenance. However, periodic checks can help ensure its longevity and reliable operation.

- **Visual Inspection:** Regularly inspect the switch and its connections for any signs of wear, corrosion, or damage.
- **Connection Integrity:** Ensure the NPT connection remains tight and free of leaks. Check electrical terminals for secure connections.

- **Cleanliness:** Keep the switch free from excessive dust, debris, or moisture, especially around the pressure port and electrical terminals.
- **Functionality Test:** If possible and safe to do so, periodically test the switch's operation by simulating the pressure conditions to ensure it actuates correctly.

7. TROUBLESHOOTING

If you encounter issues with your LEFOO LF40 Pressure Switch, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
Switch does not actuate.	Insufficient pressure; faulty wiring; damaged switch.	Verify system pressure is within 1.0-1.8 PSI range. Check electrical connections. Inspect switch for physical damage.
Switch actuates intermittently.	Fluctuating pressure; loose connections; internal wear.	Stabilize system pressure. Secure all electrical and pressure connections. Consider replacing the switch if wear is suspected.
Connected device does not turn on/off.	Incorrect wiring (NO/NC terminals); device fault; power supply issue.	Review wiring diagram and ensure correct terminals are used. Test the connected device independently. Check power supply.

If troubleshooting steps do not resolve the issue, it is recommended to consult a qualified technician or contact LEFOO customer support.

8. SAFETY INFORMATION

Always adhere to safety precautions when working with electrical components and pressure systems.

- **Disconnect Power:** Always disconnect power to the system before installing, inspecting, or performing any maintenance on the switch.
- **Pressure Release:** Ensure all pressure is safely released from the system before disconnecting the switch.
- **Qualified Personnel:** Electrical work should only be performed by qualified and licensed professionals.
- **Environmental Conditions:** Do not expose the switch to conditions beyond its specified operating temperature and environmental ratings.
- **Proper Tools:** Use appropriate tools for installation and maintenance to prevent damage to the switch or injury.

9. WARRANTY AND SUPPORT

LEFOO is committed to providing high-quality and reliable products. The LF40 Pressure Switch is manufactured under strict quality control standards and is backed by LEFOO's commitment to customer satisfaction.

For specific warranty details, technical assistance, or product support, please refer to the official LEFOO website or contact their customer service department. When contacting support, please have your product model number (LF40) and purchase information readily available.

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**Specialized in
pressure control
for 20 years**



Figure 9.1: LEFOO's expertise in pressure control and various certifications.