

## FESTO R-3-1/4-B

# FESTO R-3-1/4-B 8985 Roller Lever Valve User Manual

Model: R-3-1/4-B | Part Number: 8985

## 1. INTRODUCTION

This manual provides comprehensive instructions for the safe and efficient installation, operation, and maintenance of the FESTO R-3-1/4-B 8985 Roller Lever Valve. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage or injury. Keep this manual for future reference.

## 2. SAFETY INFORMATION

Adherence to safety guidelines is crucial for preventing accidents and ensuring the longevity of the valve. Always observe local safety regulations and general engineering practices.

- Ensure that the pneumatic system is depressurized before installation, maintenance, or removal of the valve.
- Only qualified personnel should install, operate, or maintain this device.
- Do not exceed the specified operating pressure or temperature ranges.
- Protect the valve from mechanical damage, excessive vibration, and corrosive environments.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

## 3. PRODUCT OVERVIEW

The FESTO R-3-1/4-B 8985 is a robust roller lever actuated pneumatic valve designed for reliable control in various industrial applications. It features a durable metal construction and a roller lever mechanism for precise mechanical actuation.



Figure 3.1: Front view of the FESTO R-3-1/4-B 8985 Roller Lever Valve, showing the roller lever mechanism and threaded ports.



Figure 3.2: Side view of the FESTO R-3-1/4-B 8985 Roller Lever Valve, illustrating port numbering and operational markings.

## 4. SETUP

### 4.1 Pre-installation Checks

- Verify that the valve model (R-3-1/4-B) and part number (8985) match your requirements.
- Inspect the valve for any visible damage from shipping. Do not install damaged components.
- Ensure all necessary fittings and tubing are available and compatible with the valve's port sizes.

### 4.2 Mounting

The valve can be mounted in any orientation. Secure the valve using appropriate fasteners through the designated mounting holes. Ensure the mounting surface is flat and stable to prevent stress on the valve body.

### 4.3 Pneumatic Connections

- Connect the compressed air supply to the designated inlet port (typically marked '1' or 'P').
- Connect the output line to the working port (typically marked '2' or 'A').
- Ensure all connections are clean and free of debris. Use thread sealant tape or liquid sealant on threaded connections to prevent leaks.
- Tighten fittings to the manufacturer's recommended torque specifications.

## 5. OPERATING INSTRUCTIONS

The FESTO R-3-1/4-B 8985 is a mechanically actuated valve. Its state changes when the roller lever is

depressed.

- **Actuation:** The valve is actuated by applying mechanical force to the roller lever. When the roller lever is depressed, the internal mechanism shifts, changing the flow path of the compressed air.
- **Release:** Upon release of the roller lever, the valve typically returns to its initial state via a spring return mechanism (if applicable to the specific valve configuration).
- **Flow Direction:** Refer to the markings on the valve body for specific port functions and flow directions (e.g., '1' for pressure, '2' for output, '3' for exhaust).

Ensure that the mechanical actuator (e.g., a cam or moving part) interacts smoothly with the roller lever without excessive force or misalignment.

## 6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of the valve.

- **Routine Inspection:** Periodically check the valve for signs of wear, damage, or leakage. Pay close attention to the roller lever mechanism for smooth operation.
- **Cleaning:** Keep the valve and its surroundings clean. Remove any dust, dirt, or debris that could impede the roller lever's movement or contaminate the pneumatic system. Use a soft, dry cloth. Do not use harsh chemicals.
- **Lubrication:** The valve is generally designed for maintenance-free operation. If lubrication is required for specific applications, consult FESTO's technical documentation for compatible lubricants.
- **Component Replacement:** If any part of the valve appears damaged or worn, it is recommended to replace the entire valve unit to ensure system integrity and safety.

## 7. TROUBLESHOOTING

This section outlines common issues and potential solutions for the FESTO R-3-1/4-B 8985 Roller Lever Valve.

Problem	Possible Cause	Solution
Valve does not actuate	Insufficient mechanical force on roller lever; no air supply; clogged ports.	Check mechanical actuator alignment and force; verify air supply pressure; inspect ports for obstructions.
Air leakage	Loose fittings; damaged seals; internal wear.	Tighten fittings; inspect and replace seals if accessible (or replace valve); contact support for severe internal leaks.
Sluggish operation	Low air pressure; contamination; worn roller mechanism.	Check air supply pressure; clean valve and system; inspect roller lever for wear.

If troubleshooting steps do not resolve the issue, contact FESTO technical support or your authorized distributor.

## 8. SPECIFICATIONS

Attribute	Value
Manufacturer	FESTO
Model Number	R-3-1/4-B
Part Number	8985
Material	Metal
Number of Ports	2
Item Weight	15 pounds
Product Dimensions (L x W x H)	15 x 25 x 15 inches
Included Components	LRP-1/4-4
UPC	656699124604

*Note: Specifications are subject to change without notice. Refer to the official FESTO product data sheet for the most current information.*

## 9. WARRANTY AND SUPPORT

This FESTO product is covered by the manufacturer's standard warranty. For detailed warranty terms and conditions, please refer to the official FESTO website or contact your authorized distributor.

For technical assistance, spare parts, or further information, please contact FESTO customer support. When contacting support, please have your model number (R-3-1/4-B) and part number (8985) readily available.

You can find more information and contact details on the official [FESTO website](#).