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› Belimo ZoneTight 1/2" NPT 2-Way Ball Valve Instruction Manual (Model Z2050Q-J+CQKB24-LL)

Belimo Z2050Q-J+CQKB24-LL

Belimo ZoneTight 1/2" NPT 2-Way Ball Valve Instruction Manual

Model: Z2050Q-J+CQKB24-LL

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Belimo ZoneTight 1/2" NPT 2-Way Ball Valve. Please read this document thoroughly before attempting any installation or operation to ensure proper function and to prevent potential damage or injury. This valve is designed for reliability and performance, enhancing system efficiency and durability.

SAFETY INFORMATION

- Always disconnect power to the system before performing any installation, maintenance, or service on the valve or associated components.
- Ensure that the system pressure and temperature are within the specified operating limits of the valve. Exceeding these limits can lead to valve failure and system damage.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves, during installation and maintenance.
- Consult a qualified professional for complex installations or if you are unsure about any step in the process.
- Do not modify the valve or its components. Unauthorized modifications can compromise safety and void the warranty.

PACKAGE CONTENTS

Verify that all items are present and undamaged upon opening the package.

- One (1) Belimo ZoneTight 1/2" NPT 2-Way Ball Valve (Model Z2050Q-J+CQKB24-LL)

SETUP AND INSTALLATION

The Belimo ZoneTight 1/2" NPT 2-Way Ball Valve is designed for straightforward integration into piping systems. Follow these steps for proper installation:

1. **Prepare the System:** Ensure the piping system is depressurized, drained, and free of debris before beginning installation.
2. **Apply Thread Sealant:** Apply an appropriate thread sealant (e.g., PTFE tape or pipe dope) to the 1/2" NPT male threads of the connecting pipes.
3. **Install the Valve:** Thread the valve onto the piping connections. Hand-tighten first, then use a wrench to tighten securely. Do not overtighten, as this can damage the valve or threads.
4. **Verify Flow Direction:** For a 2-way ball valve, flow is typically bidirectional. Ensure the valve is oriented correctly within the system if specific flow direction is required by the application.
5. **Leak Check:** After installation, slowly pressurize the system and carefully inspect all connections for leaks. Address any leaks immediately.



Image of the Belimo ZoneTight 1/2 inch NPT 2-Way Ball Valve, showing its compact design and connection points. This image illustrates the typical appearance of the valve for installation reference.

OPERATING INSTRUCTIONS

The Belimo ZoneTight 1/2" NPT 2-Way Ball Valve controls the flow of fluid through a pipeline. Its operation depends on the type of actuator attached (manual, electric, or pneumatic).

- **Manual Operation:** If equipped with a manual handle, rotate the handle 90 degrees to move the valve from the fully open to the fully closed position, or vice versa. The handle typically aligns with the pipe when open and perpendicular when closed.
- **Actuated Operation:** If an electric or pneumatic actuator is installed, refer to the actuator's specific instruction manual for wiring, configuration, and operation details. Ensure the actuator is correctly calibrated to achieve full open and full closed positions of the ball valve.
- **Flow Control:** The valve provides on/off control. When open, it allows full flow; when closed, it completely stops flow.

MAINTENANCE

The Belimo ZoneTight 1/2" NPT 2-Way Ball Valve is designed for minimal maintenance. However, regular inspections are recommended to ensure optimal performance and longevity.

- **Visual Inspection:** Periodically inspect the valve body, connections, and any attached actuator for signs of leaks, corrosion, physical damage, or wear.

- **Actuator Check:** If an actuator is present, verify its proper functioning, ensuring it moves the valve to its full open and closed positions without obstruction.
- **Cleaning:** Clean the external surfaces of the valve as needed to prevent accumulation of dirt or debris. Do not use harsh chemicals that could damage the valve materials.
- **No Internal Lubrication:** This sealed ball valve typically does not require internal lubrication or packing adjustments. Attempting to disassemble the valve may void the warranty and compromise its integrity.

TROUBLESHOOTING

If you encounter issues with your Belimo ZoneTight valve, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Valve leaking at connections	Improperly tightened connections; insufficient thread sealant; damaged threads.	Depressurize system, re-tighten connections, apply more thread sealant, or replace damaged components.
Valve not opening/closing fully	Actuator malfunction (if applicable); obstruction in pipeline; valve stem damage.	Check actuator power and settings. Inspect pipeline for obstructions. If valve stem is damaged, valve replacement may be necessary.
Reduced flow through valve	Valve not fully open; partial obstruction in pipeline.	Ensure valve is in the full open position. Check for debris or blockages upstream or downstream of the valve.
Unusual noise during operation	Cavitation; loose components; foreign material in valve.	Check system pressure to avoid cavitation. Inspect for loose parts. If noise persists, consider professional inspection.

SPECIFICATIONS

Specification	Detail
Manufacturer	Belimo
Model	Z2050Q-J+CQKB24-LL
Item Weight	5.8 ounces
Item Package Quantity	1
Batteries Required?	No
ASIN	B01A04ZUJ6
Date First Available	December 30, 2015
Inlet Connection Type	National Pipe Tapered (NPT)
Outlet Connection Type	MNPT

WARRANTY INFORMATION

This Belimo product comes with a standard manufacturer's warranty. For detailed information regarding warranty terms, conditions, and duration, please refer to the official Belimo website or contact their customer service department directly. Keep your proof of purchase for warranty claims.

CUSTOMER SUPPORT

For technical assistance, spare parts, or any further inquiries regarding your Belimo ZoneTight 1/2" NPT 2-Way Ball Valve, please contact Belimo customer support. You can find contact information and additional resources on the official Belimo website.