

Danfoss EV251B

Danfoss EV251B Solenoid Valve Instruction Manual

MODEL: EV251B

Introduction

This instruction manual provides essential information for the safe and efficient installation, operation, and maintenance of the Danfoss EV251B Solenoid Valve. Please read this manual thoroughly before attempting any installation or operation procedures. Retain this manual for future reference.

Safety Information

Always observe general safety precautions when working with electrical and pressurized systems. Failure to follow these instructions may result in property damage, serious injury, or death.

- Ensure power supply is disconnected before installation, maintenance, or repair.
- Verify that the valve specifications match the system requirements.
- Installation and service should only be performed by qualified personnel.
- Wear appropriate personal protective equipment (PPE).
- Do not exceed the maximum operating pressure or temperature specified for the valve.

Product Overview

The Danfoss EV251B is a 2/2-way assisted lift operated solenoid valve designed for various industrial applications. It features a G1 outlet connection type and an NBR seal, suitable for specific media and temperature ranges. The valve operates on a 230V, 50Hz power supply.



Figure 1: Danfoss EV251B Solenoid Valve. This image displays the brass valve body with a blue solenoid coil attached to the top. A black square gasket and a screw are shown in the foreground, indicating components for assembly or sealing.

Specifications

Model	EV251B
Part Number	032U538331
Type	2/2-way, Assisted Lift Operated
Orifice Size	7/8 inch
Connection Type	G1 (Outlet)
Seal Material	NBR (Nitrile Butadiene Rubber)
Voltage	230V AC
Frequency	50Hz
Brand	Danfoss

Manufacturer	Kempston Controls
ASIN	B07HCDVTQN

Setup and Installation

1. Pre-Installation Checks

- Inspect the valve for any signs of damage during shipping.
- Ensure the system is depressurized and drained before installation.
- Verify that the flow direction arrow on the valve body matches the system flow.

2. Mounting

1. Mount the valve in a position that allows for easy access for maintenance.
2. Ensure the valve is installed vertically with the coil pointing upwards for optimal performance, unless otherwise specified for specific applications.
3. Use appropriate pipe sealant on threaded connections to prevent leaks. Do not overtighten.

3. Electrical Connection

- Ensure the power supply matches the coil voltage (230V AC, 50Hz).
- Connect the electrical wiring according to local electrical codes and the wiring diagram provided with the coil.
- Secure all electrical connections to prevent accidental disconnection or short circuits.

Operating Instructions

The Danfoss EV251B is an assisted lift operated valve. This means it requires a minimum pressure differential to fully open or close, but can operate from zero differential pressure due to the assisted lift mechanism. When the coil is energized, the valve opens, allowing fluid flow. When de-energized, the valve closes, stopping flow.

- **Initial Start-up:** After installation, slowly pressurize the system and check for leaks.
- **Operation:** Apply the rated voltage to the coil to open the valve. Remove voltage to close the valve.
- **Flow Control:** This valve is designed for ON/OFF control and is not intended for throttling applications.

Maintenance

Regular maintenance ensures optimal performance and extends the lifespan of the valve. Always de-energize the coil and depressurize the system before performing any maintenance.

1. Cleaning

- Periodically inspect the valve for external dirt or debris. Clean with a soft cloth.
- If internal cleaning is required, disassemble the valve carefully, clean components with appropriate solvents compatible with NBR seals, and reassemble.

2. Inspection

- Check for leaks around connections and the valve body.
- Inspect the coil for signs of overheating or damage.
- Examine the NBR seals for wear, cracks, or degradation. Replace if necessary.

Troubleshooting

Problem	Possible Cause	Solution
Valve does not open	No power to coil; Incorrect voltage; Coil failure; Obstruction in valve.	Check power supply and connections; Verify voltage; Replace coil; Inspect and clean valve internals.
Valve does not close	Debris preventing closure; Worn seal; Coil remains energized.	Clean valve internals; Replace seal; Check electrical circuit for continuous power.
Leakage from valve	Loose connections; Damaged seals; Cracked valve body.	Tighten connections; Replace seals; Replace valve if body is cracked.


Warranty Information

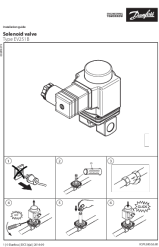
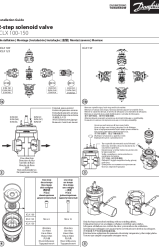

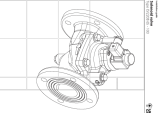
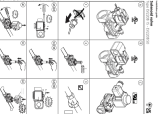
Danfoss products are manufactured to high-quality standards. This product is covered by a standard manufacturer's warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary by region and purchase date. Please refer to your purchase documentation or contact Danfoss customer support for detailed warranty information.

Customer Support

For technical assistance, spare parts, or further inquiries regarding your Danfoss EV251B Solenoid Valve, please contact your local Danfoss representative or visit the official Danfoss website. Ensure you have the model number (EV251B) and part number (032U538331) available when seeking support. You can find more information and contact details on the [Danfoss Store](#).

Related Documents - EV251B

	<p>Danfoss EV251B NC Mounting Guide</p> <p>Official mounting guide for the Danfoss EV251B NC solenoid valve. Learn about valve identification, proper installation, coil mounting and replacement, and common troubleshooting steps. Includes technical specifications and support information.</p>
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	<p>Danfoss Solenoid Valve EV251B Installation Guide</p> <p>Comprehensive installation guide for the Danfoss Solenoid Valve Type EV251B, detailing electrical and mechanical connections, operational steps, and technical specifications.</p>
	<p>Danfoss ICLX 100-150 2-Step Solenoid Valve Installation Guide</p> <p>Comprehensive installation, maintenance, and technical specifications for the Danfoss ICLX 100-150 2-step solenoid valve, covering operation, assembly, and troubleshooting.</p>
	<p>Danfoss ICF Valve Station: Technical Data and Applications</p> <p>Comprehensive data sheet for Danfoss ICF valve stations (models ICF 15, 20, 25, 50, 65), detailing features, technical specifications, function modules, material data, connection types, and application examples for industrial refrigeration.</p>
	<p>Danfoss EV220B 65-100 Solenoid Valve Installation Guide</p> <p>Comprehensive installation guide for Danfoss EV220B 65, 80, and 100 solenoid valves, covering product contents, specifications, installation steps, and maintenance recommendations.</p>
	<p>Danfoss EV220B 15 - EV220B 50 Solenoid Valve Installation Guide</p> <p>Step-by-step installation guide for Danfoss EV220B 15 and EV220B 50 solenoid valves. Includes technical specifications, safety information, and operational details.</p>