Danfoss RT200

Danfoss RT200 Pressure Switch (Model 017-523766) Instruction Manual

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Danfoss RT200 Pressure Switch, Model 017-523766. Please read this manual thoroughly before installing or operating the device to ensure proper function and to prevent potential hazards.

The Danfoss RT200 is a robust pressure switch designed for industrial applications, capable of monitoring pressure within a range of 3-85 PSI and featuring a 3/8 inch NPT connection.

2. Safety Information

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

- Ensure power is disconnected before installation, maintenance, or troubleshooting.
- Installation and service should only be performed by qualified personnel.
- Verify that the pressure range of the switch matches the system requirements.
- Do not exceed the maximum rated pressure or electrical load.
- Protect the device from physical impact and extreme environmental conditions beyond its specified operating range.
- Use appropriate personal protective equipment (PPE).

3. Product Overview

The Danfoss RT200 Pressure Switch is designed for reliable pressure control in various industrial applications. It features a durable enclosure and a precise sensing element to ensure accurate switching at set pressure points.

This image displays the Danfoss RT200 Pressure Switch. The device features a robust black base and a white top cover secured by screws. On the top cover, the Danfoss logo is visible, along with two small transparent windows. A brass 3/8 inch NPT connection extends from one side of the unit.

4. Specifications

Specification	Value
Model	RT200
Part Number	017-523766
Pressure Range	3-85 PSI
Pressure Connection	3/8 inch NPT
Type	Pressure Switch
International Protection Rating	IP541
Product Dimensions (L x W x H)	12.75 x 7.5 x 5 inches
Weight	2.1 Pounds
Manufacturer	DANFOSS

5. Setup and Installation

Proper installation is crucial for the reliable operation of the pressure switch. Refer to local codes and regulations.

5.1 Mounting

1. Choose a location free from excessive vibration, moisture, and extreme temperatures.
2. Mount the switch securely using appropriate fasteners. Ensure the mounting surface is stable.

5.2 Pressure Connection

1. Connect the 3/8 inch NPT pressure port of the switch to the system's pressure line.
2. Use appropriate thread sealant (e.g., PTFE tape) to ensure a leak-free connection.
3. Do not overtighten the connection, as this can damage the port or the switch.

5.3 Electrical Wiring

1. Ensure all power is disconnected at the source before wiring.
2. Open the electrical cover of the switch.
3. Connect the electrical wires according to the wiring diagram provided inside the switch cover or in the specific product documentation.
4. Use properly sized conductors and ensure all connections are secure.
5. Close the electrical cover securely to maintain the IP rating.

6. Operating Instructions

The Danfoss RT200 Pressure Switch operates by sensing pressure and activating or deactivating an electrical circuit when the pressure reaches a predefined set point.

6.1 Setting the Pressure

1. Refer to the internal adjustment mechanism (typically a screw or dial) for setting the desired cut-in or cut-out pressure.
2. Use a calibrated pressure gauge to monitor the system pressure while adjusting the switch.
3. Turn the adjustment screw clockwise to increase the set point and counter-clockwise to decrease it.
4. Test the switch operation multiple times to confirm the set point accuracy.

6.2 Differential Adjustment (if applicable)

Some models allow for adjustment of the differential (the difference between cut-in and cut-out pressure). Consult the specific product diagram for details on adjusting this setting.

7. Maintenance

The Danfoss RT200 Pressure Switch is designed for minimal maintenance. However, periodic checks are recommended to ensure continued reliable operation.

- **Visual Inspection:** Regularly inspect the switch for any signs of physical damage, corrosion, or loose connections.
- **Leak Checks:** Periodically check the pressure connection for any leaks.
- **Functional Test:** If critical, periodically test the switch's operation by simulating pressure changes to verify it switches at the correct set points.
- **Cleaning:** Keep the exterior of the switch clean and free from dust and debris. Do not use harsh chemicals

that could damage the enclosure.

8. Troubleshooting

If the pressure switch is not functioning as expected, refer to the following table for common issues and their potential solutions.

Problem	Possible Cause	Solution
Switch does not activate/deactivate	No power; Incorrect wiring; Pressure outside range; Faulty switch	Check power supply; Verify wiring against diagram; Check system pressure; Replace switch if faulty
Inaccurate switching point	Incorrect set point adjustment; Clogged pressure port; Sensor issue	Re-adjust set point; Clean pressure port; Contact Danfoss support if sensor is suspected faulty
Leaks at pressure connection	Improperly sealed threads; Damaged connection	Re-apply thread sealant and re-tighten; Replace connection if damaged
Intermittent operation	Loose electrical connections; Vibration; Pressure fluctuations	Tighten connections; Isolate from vibration; Stabilize system pressure

If troubleshooting steps do not resolve the issue, contact Danfoss technical support or a qualified service technician.

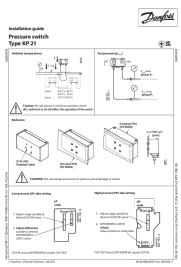
9. Warranty and Support

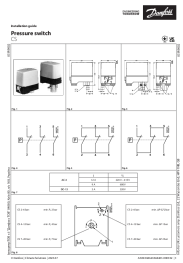
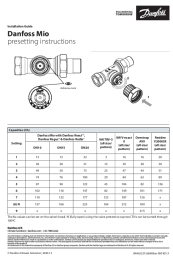
For information regarding product warranty, please refer to the official Danfoss warranty statement available on their website or contact your local Danfoss representative.

For technical support, spare parts, or further assistance, please visit the official Danfoss website or contact their customer service department. Ensure you have the model number (RT200) and part number (017-523766) available when seeking support.

Danfoss Official Website: www.danfoss.com

Related Documents - RT200

	Danfoss KP 21 Pressure Switch Installation Guide Installation guide for the Danfoss KP 21 pressure switch. Learn about ambient temperature limits, enclosure types (IP30, IP44), test pressure ratings, and detailed instructions for setting the low and high pressure sides. Includes contact load specifications and wiring information for electrical connections.

	[Danfoss Link CC Central Controller Installation Guide for Smart Home Heating Systems] Comprehensive installation guide for the Danfoss Link CC Central Controller, a programmable wireless heating control system for homes up to 300 m². Learn how to install, configure, and manage your smart home heating solution, including device pairing, Wi-Fi setup, and software updates.
	[Danfoss CS Pressure Switch Installation Guide] Comprehensive installation guide for the Danfoss CS pressure switch, covering mounting, electrical connections, settings, and troubleshooting across multiple languages.
	[Danfoss Link™ & Connect Thermostats Application Guide for Heating Control] This application guide from Danfoss provides comprehensive information on the Danfoss Link™ and Connect Thermostats heating control systems. It covers system components, general guidelines for heat supply and room management, and details applications for boilers, central boilers, district heating, and heat pumps, optimizing energy efficiency and comfort in residential settings.
	[Danfoss Ally™ Smart Heating System User Guide] Comprehensive user guide for the Danfoss Ally™ smart heating system, covering installation, app usage, features, settings, and troubleshooting for the Danfoss Ally™ Gateway and Radiator Thermostats.
	[Danfoss Mio Presetting Instructions: Installation Guide for HVAC Valves] Comprehensive installation guide for Danfoss Mio thermostatic radiator valves (TRVs), detailing presetting instructions and Kv-value capacities for various models and sizes.